

ICAE 2013

The 2nd International Conference on Advanced Electromaterials

Nov. 12 - 15, 2013, ICC Jeju, Jeju, Korea



• **Organized by :**  The Korean Institute of Electrical and Electronic Material Engineers

• **Sponsored by :**   

• **Technically Sponsored by :**       



미래창조과학부 글로벌프론티어사업

(재)멀티스케일 에너지 시스템 연구단 Global Frontier Center for Multiscale Energy Systems

1 Objective of Research

- To find the basis for the development of solar and molecular energy as an alternative to fossil fuels thereby implementing an innovative approach for a highly efficient multiscale future energy system
- To create a new scientific blended technology based on multi-scale energy research

2 Research Overview

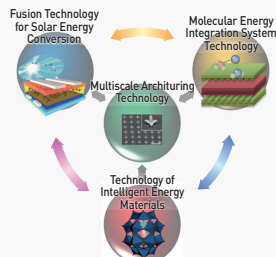
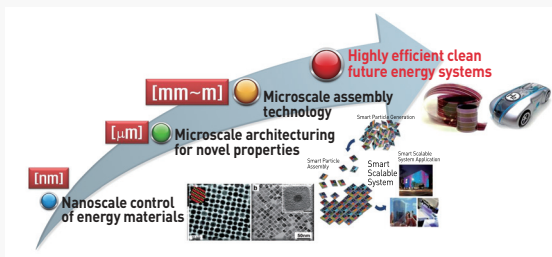
- **Research Period:** 2011. 9 ~ 2020. 8 (9 years)
- **Research Budget:** about USD 10 millions
- **Director:** Professor Mansoo Choi (Seoul Nat' University)
- **Participating institution:** SNU, KRICT, KAIST, Hanyang U, KIMM, Sogang U, Yonsei U, SKKU, KIST, POSTECH, KIER, Korea U, GIST, Ewha U, Pusan U, UT Dallas and 16 institutions included
- **Participants:** 420 researchers per year

3 Research content

- To research a multi-scale architecturing technology that integrates nano, micro and macroscales
- To research a new concept of solar and molecular energy convergence systems
- To develop a nanoscale of energy resources

4 Strategy

- To build a non-profit organization that performs four core research projects
- To secure world-class technology based on the values of challenge, convergence, and openness
- To build a global evaluation system through peer review process from international counseling advisors
- To accommodate moving targets; future target to be subject to change and be upgraded according to technological and social environment developments



ICAE 2013

The 2nd International Conference
on Advanced Electromaterials

C	O	N	T	E	N	T	S
Welcome Message							002
Committee							004
Venue Layout							007
Program at a Glance							008
Conference Information							009
Registration							
Announcement & Message Board							
Internet Lounge & Speaker's Room							
Coffee Break							
Lunches							
Hotel & Tour Desk							
Shuttle Bus Service							
Local Transportation to Int'l Airport							
Secretariat Office							
Social Programs							
Technical Program							014
Session Timetable							
Keynote Speakers							
Presentation Guidelines							
Presentation Schedule							
FP (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials)							019
FD (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications)							029
NM (Nanostructured Materials for Energy Devices)							045
LT (Advanced LED and Lighting Technology)							055
TF (Thin Film Processing and Devices)							067
FM (Flexible and Printable Electronic Materials and Devices)							079
OS (Oxide Semiconductors: Fundamentals and Advanced Applications)							087
PE (Power Electronic Materials and Devices)							098
PV (Advanced Photovoltaic Materials and Devices)							103
FC (Advanced Materials for Fuel Cell Technology)							116
ES (Energy Storage Materials and Devices)							125
EM (Application Technology for Advanced Electromaterials and Devices)							137
KC (Korea-China Joint Symposium on Ferroelectricity and Multiferroics)							150
Directory of Exhibitors							155
Author Index							162

Welcome Message

It gives me great pleasure to welcome all of you to the International Conference on Advanced Electromaterials(ICAE) 2013 on behalf of the Korean Institute of Electrical and Electronic Material Engineering(KIEEME).

ICAE 2013 is held at the international convention center in Jeju from 12th to 15th of November, 2013. 1,105 papers will be presented at 13 symposiums during this session. Number of papers in this conference exceeds 20% of ICAE 2011. I'd like to express thanks to the Organizing Committee, who have dedicated their effort for the successful hosting of this conference.

KIEEME was founded on 1987 and members of this institute are about 4,500 persons, including professors in universities, researchers in professional research centers and business men in various companies. Its major activities are publishing journals in Korean and English monthly, holding conferences annually and holding ICAE biennially. I look forward to you joining a member of KIEEME. If you join during this session, you are granted exemption of the entrance fee and the one year membership fee.

Jeju is one of the most beautiful area in Republic of Korea, which was designated as UNESCO World Natural Heritage. There are bountiful forests and ravines, fantastic rock formations and volcanic craters, and caves and grasslands that together paint a natural scene of breathtaking beauty. I hope all of participants are enjoy Jeju's Scenery and Korean food during this session.

Finally I welcome you once again to ICAE 2013. I hope all of participants gain a successful achievement in this conference and have a safe journey in Jeju.



Prof. Joon Tae Song

Honorary Chairman, ICAE 2013

President of the Korean Institute of Electrical and Electronic Material Engineering

Welcome Message

Dear prestigious delegates,

Welcome to Jeju Island, one of the New Seven Wonders of Nature!

Following the footstep of the huge success of ICAE 2011, which attracted more than 900 participants from 19 countries, ICAE 2013 is expecting approximately 1,100 papers presented by more than 1,000 eminent scholars, researchers and young students from all around the world. There will be thirteen topical symposia in such areas of ferroelectric and piezoelectric materials and devices, green energy materials such as solar cells and fuel cells, functional thin films and devices, energy storage materials, transparent electronics, printable electronics, "soft" organic electronics, smart nano-materials and devices, advances in nanotechnologies, new and emerging optoelectronic materials and devices based on LEDs and OLEDs, advances in semiconductor technologies.

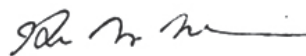
Through your active participation, I am certain that you will have chances to obtain the state-of-the-art in the fields mentioned above, and thereby equip yourself with the most up-to-date knowledge. This will, in turn, contribute to the advancement or progress in every field in which ICAE 2013 is preparing open forums.

Since last year, we have been preparing ICAE 2013, and I must say it has been my great pleasure and an honor to serve as the chairman of the conference, and I am really appreciating all symposium organizers who have put much of their times and sacrifice themselves for the successful conference. Thanks are also due to keynote and invited speakers, who are with no doubt leading scholars in their own expertise. Last, but not least, I would also express my deep appreciation to all members of the organizing committee, international advisory committee and secretariat for all their efforts.

Apart from the conference activities, I would like you to have a chance to enjoy some of the famous tourist attractions in Jeju Island, or simply relax and recharge yourself. November is the probably the best month of the year in many aspects. The weather is usually mild with daytime highs of around 20 degree Celsius. There are several tracking trails along the coastline, or if you like, you may hike to the top of the Halla Mountain.

Once again, I would like to extend my sincere thanks to each of you, for your valuable contribution to the conference.

Thank you!



Prof. Hee Young Lee
General Chairman, ICAE 2013

Committee

Honorary Chairman	Joon Tae Song (SungKyunKwan University, Korea)
General Chairman	Hee Young Lee (Yeungnam University, Korea)
General Co-chairman	Gun-Eik Jang (Chungbuk National University, Korea) Seok-Jin Yoon (Korea Institute of Science and Technology, Korea) Chang-Il Kim (Chung-Ang University, Korea) Masanori Okuyama (Osaka University, Japan)
International Advisory Committee	Kee Joe Lim (Chungbuk National University, Korea) Dae-Hee Park (Wonkwang University, Korea) E. Fred Schubert (Rensselaer Polytechnic Institute (RPI), USA) Hulya Kirkici (Auburn University, USA) Angelo Moreno (ENEA, Italy)
Technical Program Committee	Chair Jae-Shin Lee (University of Ulsan, Korea) Co-chair Sangsig Kim (Korea University, Korea) Sang Yeol Lee (Cheongju University, Korea) Jongwoon Park (Korea Polytechnic University, Korea)
Publication Committee	Chair Hoon Kyu Shin (Pohang University of Science and Technology, Korea) Co-chair Hyun Hoo Kim (Doowon University, Korea) Il Doo Kim (Korea Advanced Institute of Science and Technology, Korea) Byoung-Gon Yu (Electronics and Telecommunications Research Institute, Korea) Sung-Min Yoon (Kyung Hee University, Korea)
Treasurer	Kwang Cheol Ko (Hanyang University, Korea) Cheon Lee (Inha University, Korea) Yong Moo Chang (Hanyang University, Korea)
Local Committee	Won Sik Kim (LS MTRON, Korea)
Exhibition Committee	Ja-Soon Jang (Yeungnam University, Korea)
General Secretary	Ji-Won Choi (Korea Institute of Science and Technology, Korea)
Secretary	Joon-Hyung Lee (Kyungpook National University, Korea) Sung-Jin Kim (Chungbuk National University, Korea)

Committee

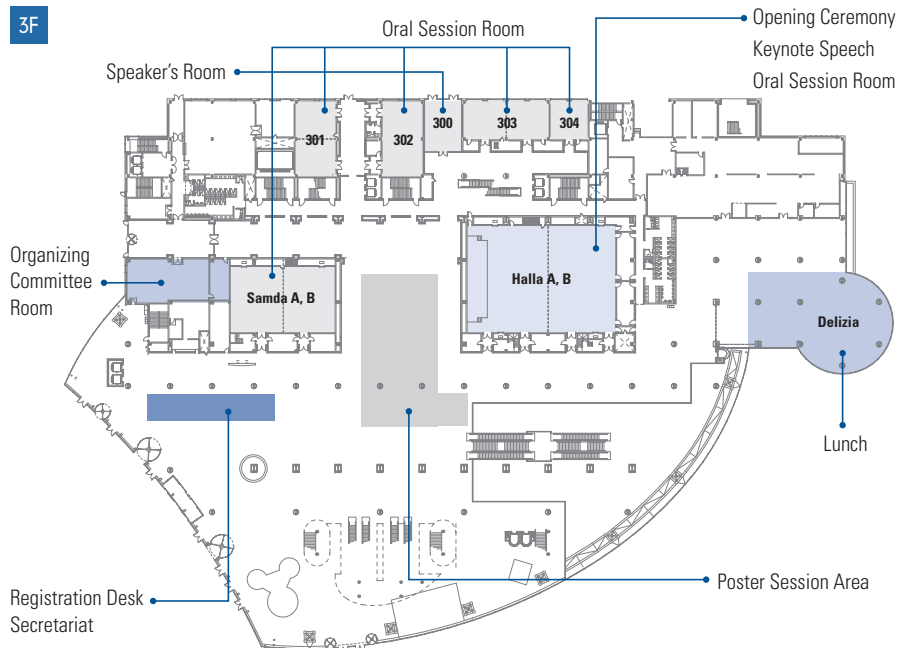
FP	Organizer	Wook Jo (Technische Universitat Darmstadt, Germany)
	Co-organizer	Jae-Ho Jeon (Korea Institute of Materials Science, Korea) Jing Feng Li (Tsinghua University, China)
FD	Organizer	Chong-Yun Kang (Korea Institute of Science and Technology, Korea)
	Co-organizer	Jungho Ryu (Korea Institute of Materials Science, Korea) Takeshi Morita (The University of Tokyo, Japan)
NM	Organizer	Eun Dong Kim (Korea Electrotechnology Research Institute, Korea)
	Co-organizer	Aldo Di Carlo (University of Rome "Tor Vergata", Italy) Nosang V. Myung (University of California at Riverside, USA) Geon-Woong Lee (Korea Electrotechnology Research Inst. Korea)
LT	Organizer	Ja-Soon Jang (LIFTRC & Yeungnam University, Korea)
	Co-organizer	Jong-Kyu Kim (Pohang University of Science and Technology, Korea) Jong-Hyeob Baek (Korea Photonics Technology Institute, Korea) Tohru Honda (Kogakuin University, Japan) Chih-Chung Yang (National Taiwan University, Taiwan) Jaehee Cho (Chonbuk National University, Korea)
TF	Organizer	Soon-Gil Yoon (Chungnam National University, Korea)
	Co-organizer	Sang-Im Yoo (Seoul National University, Korea)
FM	Organizer	Byoung Gon Yu (Electronics and Telecommunications Research Inst., Korea)
	Co-organizer	Yong-Young Noh (Dongguk University, Korea) Taishi Takenobu (Waseda University, Japan) Jae-Bon Koo (Electronics and Telecommunications Research Inst., Korea)
OS	Organizer	Sang Yeol Lee (Cheongju University, Korea)
	Co-organizer	George Kiriakidis (University of Crete and FORTH, Greece) Jun Seop Kwak (Suncheon National University, Korea)

Committee

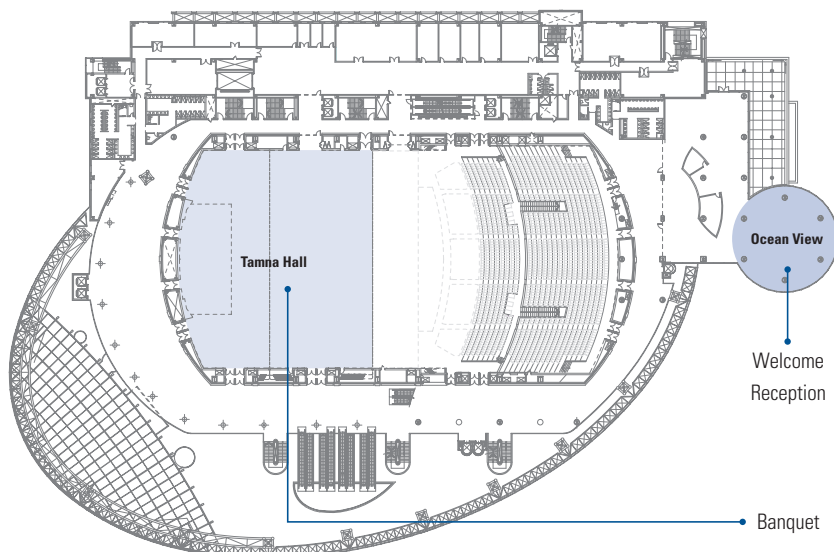
PE	Organizer	Kyu-Hwan Shim (Chonbuk National University, Korea)
	Co-organizer	Jin Ho Lee (Electronics and Telecommunications Research Inst., Korea) Nam-Kyun Kim (Korea Electrotechnology Research Institute, Korea) Kevin J. Chen (Hong Kong University, Hong Kong)
PV	Organizer	Sang Il Seok (Korea Research Institute of Chemical Technology, Korea)
	Co-organizer	Kyungkon Kim (EwhaWomans University, Korea) Jaehyeong Lee (Sungkyunkwan University, Korea) Sohee Jeong (Korea Institute of Machinery & Materials, Korea)
FC	Organizer	Tae-Hoon Lim (Korea Institute of Science and Technology, Korea)
	Co-organizer	Soo-Kil Kim (Chung-Ang University, Korea) Jong Hyun Jang (Korea Institute of Science and Technology, Korea)
ES	Organizer	Do Kyung Kim (Korea Advanced Inst. of Science and Tech., Korea)
	Co-organizer	Hyunjung Shin (Sungkyunkwan University, Korea)
EM	Organizer	Hoon-Kyu Shin (Pohang University of Science and Technology, Korea)
	Co-organizer	Takaaki Manaka (Tokyo Institute of Technology, Japan) Sang Jeon Hong (Myongji University, Korea) Sang Heon Lee (Sunmoon University, Korea)
KC	Organizer	Ill Won Kim (University of Ulsan, Korea)
	Co-organizer	Kee Hoon Kim (Seoul National University, Korea) Di Wu (Nanjing University, China) Shuxiang Dong (Peking University, China)

Venue Layout

3F



5F



Program at a Glance

	Nov. 12 (Tue.)	Nov. 13 (Wed.)	Nov. 14 (Thu.)	Nov. 15 (Fri.)
09:00	Oral Session (09:00-10:15)	Oral Session (09:00-10:15)	Oral Session (09:00-10:15)	Oral Session (09:00-10:15)
10:00	Coffee Break (10:15-10:30)	Coffee Break (10:15-10:40)	Coffee Break (10:15-10:40)	Coffee Break (10:15-10:45)
11:00	Opening Ceremony & Keynote Speech 1, 2 (10:30-12:00)	Keynote Speech 3, 4, 5 (10:40-12:00)	Keynote Speech 6, 7 (10:40-12:00)	Oral Session (10:45-12:00)
12:00	Lunch (12:00-13:00)	Lunch (12:00-13:00)	Lunch (12:00-13:00)	Lunch (12:00-13:00)
13:00	Oral Session (13:00-14:30)	Oral Session (13:00-14:30)	Oral Session (13:00-14:30)	Poster Session (13:00-14:30)
14:00	Coffee Break (14:30-15:00)	Coffee Break (14:30-15:00)	Coffee Break (14:30-15:00)	
15:00	Oral Session (15:00-16:30)	Oral Session (15:00-16:30)	Oral Session (15:00-16:30)	
16:00				
17:00	Poster Session (16:30-18:00)	Poster Session (16:30-18:00)	Poster Session (16:30-18:00)	
18:00	Welcome Reception (18:00-19:30)		Banquet (18:00-20:00)	
19:00				
20:00				

Conference Information

Registration

The registration desk will be operated during the conference according to the schedule below.

Registration Desk

Location	Conference Room Lobby 3F	
Operating Time	08:00-18:00	November 12 [Tue.] - 14 [Thu.]
	08:00-15:00	November 15 [Fri.]

Registration Fee

Category	On-site Registration	Registration Fee Includes
Regular	USD 650	eProceedings, Technical Sessions, Conference Kit, Welcome Reception, Banquet, Lunches
Student	USD 300	
Accompanying Person	USD 250	Welcome Reception, Banquet, Lunches

Personal Envelop

A personal envelop of registration is provided to each participant at the registration desk. It contains a name badge, a certificate of attendance, a receipt for the registration fee, coupons for conference kit, lunches, and banquet.

Name Badge

For security purposes, participants must wear their name badge to access the conference. You will be given a name badge when you register. If your badge needs correction, please visit the registration desk for a replacement.

Conference Kit

A conference kit desk will be located separately near the registration desk. Please exchange your conference kit coupon with the conference kit. It composes a conference bag, program book and eProceedings.

Announcement & Message Board

Announcement and Message Board will be set up near the registration desk area so that participants can get useful information from the secretariat or other participants.

Conference Information

Internet Lounge

Location	Conference Room Lobby 3F	
Operating Time	08:00-18:00	November 12 [Tue.] - 14 [Thu.]
	08:00-15:00	November 15 [Fri.]

Free internet service is available at the internet lounge.

Speaker's Room

Location	Room 300	
Operating Time	08:00-18:00	November 12 [Tue.] - 14 [Thu.]
	08:00-13:00	November 15 [Fri.]

- Please visit the Speaker's Room to check your presentation file at least 3 hours before your session starts to ensure your presentation file appears properly.
- If your presentation file contains animations or movies, you are advised to check over the technical matters 6 hours prior to your session.

Coffee Break

Enjoy your break a cup of coffee or tea that will be prepared as below.

Location	Conference Room Lobby 3F	
Operating Time	10:15-10:30 & 14:30-15:00	November 12 [Tue.]
	10:15-10:40 & 14:30-15:00	November 13 [Wed.] - 14 [Thu.]
	10:15-10:45	November 15 [Fri.]

Lunches

Lunch will be provided to all participants during the conference. Please bring your lunch coupons with your name badge.

Location	Delizia 3F	
Operating Time	12:00-13:00	November 12 [Tue.] - 15 [Fri.]

Hotel & Tour Desk

Location	Conference Room Lobby 3F	
Operating Time	09:00-18:00	November 12 [Tue.] - 14 [Thu.]
	09:00-15:00	November 15 [Fri.]

The Tour & Hotel Desk will be located near the registration desk. Please contact this desk for all hotel and tour related information. Participants can also buy a flight ticket and change the flight schedule at this desk. Staff of TN Korea, which is ICAE 2013's official Travel Agency, will be at the desk.

Shuttle Bus Service

Participant will be free to use shuttle buses between the venue and official hotels during the conference.

Course 1 (Inside Jungmun Complex)

Hotel to ICC Jeju

Hyatt Regency Jeju	The Shilla Jeju	Jeju Hotel Hana	Lotte Hotel Jeju	Jeju ICC
07:15	07:25	07:35	07:45	07:55
08:10	08:20	08:30	08:40	08:50
11:00	11:10	11:20	11:30	11:40
15:00	15:10	15:20	15:30	15:40

* For participants staying at the Suites Hotel, please take the shuttle bus at the Hana Hotel.

ICC Jeju to Hotel

Nov. 12 (Tue.)	Nov. 13 (Wed.)	Nov. 14 (Thu.)	Nov. 15 (Fri.)
13:30	13:30	13:30	13:30
18:10	18:10	18:10	15:00
19:00	19:00	20:10	
19:50		21:00	

Course 2 (Outside Jungmun Complex)

Hotel to ICC Jeju

Hotel Sun Beach Seogwipo	Jeju Wonder Resort	Poonglim Resort	Jeju ICC
07:00	07:20	07:30	08:00
09:00	09:20	09:30	10:00
11:00	11:20	11:30	12:00
15:00	15:20	15:30	16:00

ICC Jeju to Hotel

Nov. 12 (Tue.)	Nov. 13 (Wed.)	Nov. 14 (Thu.)	Nov. 15 (Fri.)
13:30	13:30	13:30	13:30
18:10	18:10	18:10	15:00
19:50		20:10	

Conference Information

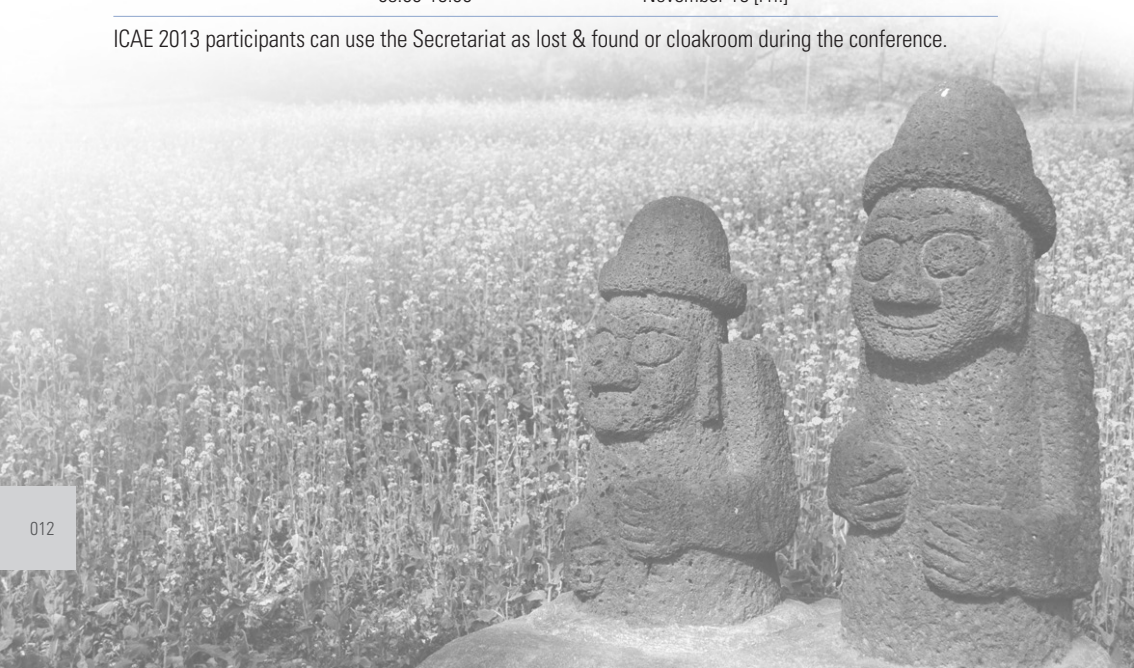
Local Transportation to Int'l Airport

Category	To Jeju Int'l Airport
Bus No.	Airport Limousine 600
Operation Hours	06:20 ~ 22:00 (Interval 16~18 minutes)
Price	KRW 3,900 (USD 4)
The necessary	80 minutes
Station	Seoguipo Cal Hotel - Paradise Hotel - Seoguipohang - Gyeongnam Hotel - World Cup Stadium - ICC Jeju Convention Center (Venue) - CSN Hotel Resort - Korea National Tourism Organization - Korea Condo - Lotte Hotel - Suites Hotel - Silla Hotel - Hyatt Hotel - Hana Hotel - Yeomiji - The Hotel - Jeju Int'l Airport

Secretariat Office

Location	Conference Room Lobby 3F	
Operating Time	08:00-18:00	November 12 [Tue.] - 14 [Thu.]
	08:00-15:00	November 15 [Fri.]

ICAE 2013 participants can use the Secretariat as lost & found or cloakroom during the conference.



Social Programs

Opening Ceremony

ICAE 2013 opening ceremony will officially get started at Halla Hall. All registered participants are cordially invited to join us and celebrate the official opening.

Date & Time 10:30-10:40, November 12 (Tue.)

Place Halla Hall 3F

Welcome Reception

You will experience a warm welcome from the host of ICAE 2013. All participants are highly welcome. Light refreshments will be provided free of charge.

Date & Time 18:00-19:30, November 12 (Tue.)

Place Ocean View 5F

Banquet

All delegates and their accompanying guests are invited to join "Conference Banquet". This official main event will be a rare opportunity for foreign participants to experience Korea hospitality and wonderful performance in an exotic environment. We are sure that this banquet will be memorable for all attendants.

Date & Time 18:00-20:00, November 14 (Thu.)

Place Tamna Hall 5F

Sponsor



Remark

Banquet coupon will be available for who finalize the confirmation by replying the attendance to the secretariat. On-site registration is available at the registration desk until 12:00 on November 13 (Wed.).

Prize Draw at Poster Session

There will be a drawing in which participants will be given gifts (**1 iPad mini and 2 1TB external HDD**) at each Poster Session. Please do not miss this chance and stay in Poster Session Place by the end of each Poster Session.

Technical Program

Session Timetable

Symposium Abbreviation	
FP	Ferroelectrics and Piezoelectrics: Fundamentals and New Materials
FD	Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications
NM	Nanostructured Materials for Energy Devices
LT	Advanced LED and Lighting Technology
TF	Thin Film Processing and Devices
FM	Flexible and Printable Electronic Materials and Devices
OS	Oxide Semiconductors: Fundamentals and Advanced Applications
PE	Power Electronic Materials and Devices
PV	Advanced Photovoltaic Materials and Devices
FC	Advanced Materials for Fuel Cell Technology
ES	Energy Storage Materials and Devices
EM	Application Technology for Advanced Electromaterials and Devices
KC	Korea-China Joint Symposium on Ferroelectricity and Multiferroics

Nov. 12, 2013 (Tue.)

	Oral Session							
	Samda A	Samda B	301	302	303	304	Halla A	Halla B
09:00-10:15	FP-1 (p.019)	FD-1 (p.029)		ES-1 (p.125)				
10:15-10:30	Coffee Break							
10:30-12:00	Opening Ceremony & Keynote Speech 1, 2 (Prof. Juergen Roedel, Prof. Han-III Yoo)							
12:00-13:00	Lunch							
13:00-14:30	FP-2 (p.019)	FD-2 (p.029)	FC-1 (p.116)	ES-2 (p.125)		PE-1 (p.098)		
14:30-15:00	Coffee Break							
15:00-16:30	FP-3 (p.020)	FD-3 (p.030)	FC-2 (p.116)	ES-3 (p.126)		PE-2 (p.098)		
16:30-18:00	Poster Session							
	FP-1 (p.023), FD-1 (p.036), PE (p.100), FC-1 (p.119), ES-1 (p.129)							

Nov. 13, 2013 (Wed.)

	Oral Session							
	Samda A	Samda B	301	302	303	304	Halla A	Halla B
09:00-10:15	FP-4 (p.020)	FD-4 (p.031)	FC-3 (p.117)	ES-4 (p.127)	LT-1 (p.055)	FM-1 (p.079)		PV-1 (p.103)
10:15-10:40	Coffee Break							
10:40-12:00	Keynote Speech 3, 4 (Prof. Kenji Uchino, Prof. Takao Someya) / Keynote Speech 5 (Dr. V. I. Klimov)							
12:00-13:00	Lunch							
13:00-14:30	FP-5 (p.021)	FD-5 (p.031)	FC-4 (p.118)	ES-5 (p.127)	LT-2 (p.055)	FM-2 (p.079)	OS-1 (p.087)	PV-2 (p.103)
14:30-15:00	Coffee Break							
15:00-16:30	FP-6 (p.022)	FD-6 (p.032)	FC-5 (p.118)	NM-1 (p.045)	LT-3 (p.056)	FM-3 (p.080)	OS-2 (p.087)	PV-3 (p.104)
16:30-18:00	Poster Session					304		
	FP-2 (p.025), NM-1 (p.048), LT-1 (p.059), FM-1 (p.082), OS-1 (p.090), PV-1 (p.106), FC-2 (p.121), ES-2 (p.133)					Green Energy Convergence Forum		

Nov. 14, 2013 (Thu.)

	Oral Session							
	Samda A	Samda B	301	302	303	304	Halla A	Halla B
09:00-10:15		FD-7 (p.032)	EM-1 (p.137)	NM-2 (p.045)	LT-4 (p.056)	FM-4 (p.080)		PV-4 (p.104)
10:15-10:40	Coffee Break							
10:40-12:00	Keynote Speech 6, 7 (Prof. John F. Wager, Prof. Jong Min Kim)							
12:00-13:00	Lunch							
13:00-14:30	KC-1 (p.150)	FD-8 (p.033)	EM-2 (p.137)	NM-3 (p.046)	LT-5 (p.057)	FM-5 (p.081)	OS-3 (p.088)	PV-5 (p.105)
14:30-15:00	Coffee Break							
15:00-16:30	KC-2 (p.150)	FD-9 (p.033)	EM-3 (p.138)	NM-4 (p.047)	LT-6 (p.057)	TF-1 (p.067)	OS-4 (p.088)	
16:30-18:00	Poster Session							
	FD-2 (p.039), NM-2 (p.051), LT-2 (p.063), TF-1 (p.069), FM-2 (p.084), OS-2 (p.094), PV-2 (p.111), EM-1 (p.140)							

Technical Program

Nov. 15, 2013 (Fri.)

	Oral Session							
	Samda A	Samda B	301	302	303	304	Halla A	Halla B
09:00-10:15	KC-3 (p.151)	FD-10 (p.034)	EM-4 (p.139)	TF-2 (p.067)				
10:15-10:45	Coffee Break							
10:45-12:00	KC-4 (p.151)	FD-11 (p.034)		TF-3 (p.068)				
12:00-13:00	Lunch							
13:00-14:30	Poster Session							
	FD-3 (p.042), TF-2 (p.072), EM-2 (p.144), KC (p.153)							

Keynote Speakers



Keynote Speaker 1

10:40-11:20, Nov. 12 (Tue.), Halla Hall

Prof. Juergen Roedel

Technische Universitat Darmstadt, Germany

"The Road to Lead-Free Piezoceramics"



Keynote Speaker 2

11:20-12:00, Nov. 12 (Tue.), Halla Hall

Prof. Han-Il Yoo

Seoul National University, Korea

"Open Circuit Voltage of a Galvanic Cell, A State Property?"



Keynote Speaker 3

10:40-11:20, Nov. 13 (Wed.), Halla Hall A

Prof. Kenji Uchino

Office of Naval Research Global, USA

"Politico-Engineering - In Actuator/Piezoelectric Devices -"



Keynote Speaker 4

11:20-12:00, Nov. 13 (Wed.), Hall A

Prof. Takao Someya

University of Tokyo, Japan

"Ultraflexible and Stretchable Organic Electronics for Biomedical Applications"



Keynote Speaker 5

11:00-11:40, Nov. 13 (Wed.), Hall B

Dr. Victor I. Klimov

Los Alamos National Laboratory, USA

"Two for the Price of One: New Insights into Carrier Multiplication in Semiconductor Nanocrystals"



Keynote Speaker 6

10:40-11:20, Nov. 14 (Thu.), Hall A

Prof. John F. Wager

Oregon State University, USA

"An Amorphous Oxide Semiconductor Thin-Film Transistor Route to Oxide Electronics"



Keynote Speaker 7

11:20-12:00, Nov. 14 (Thu.), Hall A

Prof. Jong Min Kim

University of Oxford, UK

"Nanotechnology Convergence for IT, ET, and BTs."



Technical Program

Presentation Guidelines

Oral Presentation

- Length of oral presentation material should be in accordance to your time assigned, 15 min. (Invited Speaker: 30min.) including Q&A.
- Presenters should prepare the presentation file in MS-PowerPoint in English.
- **Please bring your PowerPoint presentation file** on a CD or USB memory stick and submit it to the operator of each presentation room **at least 10 minutes before each session starts.**
- **Each presenter is also asked to submit his/her own short autobiography** to the session chair at least 10 minutes before each session starts.

Poster Presentation

- Each poster will be assigned a panel, which has its own paper's number, at the conference.
- Poster presenters are required to prepare their own poster materials in advance and post their presentations 30 minutes prior to the beginning of the session.
- Please remove your poster within 1 hour after your session is ended. All remaining posters will be removed.
- The materials such as some scissors and tapes will be provided in Poster Session Place.



Ferroelectrics and Piezoelectrics: Fundamentals and New Materials (FP)

Oral Presentation

Nov. 12, 2013 (Tue.)

FP-1 (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials 1)

Samda A

Chairs : Dr. Wook Jo (Technische Universität Darmstadt)

09:00-10:15

Prof. Satoshi Wada (University of Yamanashi)

FP-4543 Electric Field-induced Structure in NBT-based Relaxors

09:00-09:30

Pam A. Thomas, David I. Woodward, Dean S. Keeble, David Walker, Shashwath Anand

Invited Speech

University of Warwick

FP-0720 Synchrotron X-ray Diffraction Analysis of La-doped BNKT Ceramics

09:30-09:45

Thi Hinh Dinh¹, Changhyo Hong¹, Hyoung-Su Han¹, John Daniels², Wook Jo³, Jae-Shin Lee¹

¹University of Ulsan, ²University of New South Wales, ³Technische Universität Darmstadt

FP-4010 Reduction of Strain Hysteresis in Bi-based Lead-Free Ceramics by Embedding Ferroelectric Particles in Relaxor Matrix

09:45-10:00

Hyun-Young Lee, Thi Hinh Dinh, Hyoung-Su Han, Chang-won Ahn, Ill Won Kim, Jae-Shin Lee

University of Ulsan

FP-3045 Effects of Fe₂O₃ Addition on the Piezoelectric and Dielectric Properties of 0.99Pb(Zr_{0.53}Ti_{0.47})O₃-0.01Bi(Y_{1-X}Fe_X)O₃ Ceramics for Energy Harvesting Devices

10:00-10:15

Iqbal Mahmud, Soon-Chul Ur, Man-Soon Yoon

Korea National University of Transportation

Nov. 12, 2013 (Tue.)

FP-2 (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials 2)

Samda A

Chair : Prof. Pam A. Thomas (University of Warwick)

13:00-14:30

FP-2354 Temperature Dependence of Electric Field Induced Strain in Coarse- vs. Fine Grained Morphotropic PZT Ceramics

13:00-13:30

Hans Kungl¹, Manuel Hinterstein²

Invited Speech

¹Forschungszentrum Juelich, ²Institut für Werkstoffwissenschaft

FP-1103 Fabrication and Electrical Properties of Dense (Bi_{1/2}K_{1/2})TiO₃ Ceramics and Their Multilayer Actuator

13:30-14:00

Hajime Nagata, Kazuya Tabuchi, Tadashi Takenaka

Invited Speech

Tokyo University of Science

FP-2912 Enhanced Ferroelectric Ordering of Pb(Mg_{1/3}Nb_{2/3})_{0.9}Ti_{0.1}O₃ Ceramics by ZnO Modification

14:00-14:15

Methee Promsawat¹, Anucha Watcharapason¹, Zuo-Guang Ye², Sukanda Jiansirisomboon¹

¹Chiang Mai University, ²Simon Fraser University

FP
Oral

FP-2631 Structural and Dielectric Properties of Lanthanum Doped Bi1/2(Na0.82K0.18)1/2TiO3 Lead-Free Piezoelectric Ceramics

14:15-14:30

Thi Hinh Dinh, Jin Kyu Kang, Dae Jun Heo, Chang Won Ahn, Jae Shin Lee
University of Ulsan

Nov. 12, 2013 (Tue.)

FP-3 (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials 3)

Samda A

Chairs : Dr. Haibo Zhang (Technische Universität Darmstadt)
Dr. Hans Kungl (Forschungszentrum Juelich)

15:00-16:45

FP-0992 Optical Properties of Ferroelectrics – Detection of Electronic Band Gap Defects

15:00-15:30

Torsten Granzow

Invited Speech

Centre de Recherche Public - Gabriel Lippmann

FP-0883 Ferroelectric and Piezoelectric Properties of Lead-free SrZrO3-M Odified Bi1/2(Na0.80K0.20) 1/2TiO3 Ceramics

15:30-15:45

Ali Hussain, Myong-Ho Kim, Jin-Soo Kim, Tae-Kwon Song, Won-Jong Kim
Changwon National University

FP-2086 Evaluation of Stress and Oxygen Vacancy Distribution in MLCC using Raman Spectroscopy

15:45-16:00

Takeshi Tai, Hiromi Shima, Ken Nishida, Takashi Yamamoto
National Defence Academy

FP-2610 Insight into the Electric Field induced Ferroelectric to Relaxor Transition

16:00-16:15

Wook Jo¹, John Daniels², Dragan Damjanovic³, Wolfgang Kleemann⁴, Jürgen Rödel¹

¹Technische Universität Darmstadt, ²University of New South Wales, ³Swiss Federal Institute of Technology in Lausanne - EPFL, ⁴Universität Duisburg-Essen

FP-0493 Competitive Role between Polarization Rotation and Defect Dipole Alignment During Poling of (K, Na)NbO3-based Lead-Free Piezoceramics

16:15-16:30

Fang-Zhou Yao¹, Ke Wang¹, Wook Jo², Jürgen Rödel², Li-Qian Cheng¹, Jing-Feng Li¹

¹Tsinghua University, ²Technische Universität Darmstadt

FP-0306 Current-Voltage Characterization of Oxide Thin Films

16:30-16:45

Yaodong Yang¹, Zhiguang Wang², Dwight Viehland²

¹Xi'an Jiaotong University, ²Virginia Tech

Nov. 13, 2013 (Wed.)

FP-4 (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials 4)

Samda A

Chairs : Dr. Torsten Granzow (Centre de Recherche Public-Gabriel Lippmann)
Prof. Ke Wang (Tsinghua University)

09:00-10:15

FP-0489 High Piezoelectricity of BaTiO3 based Lead-Free Ceramics

09:00-09:30

Bo-Ping Zhang, Li-Feng Zhu, Lei Zhao, PengFei Zhou

Invited Speech

University of Science and Technology Beijing

FP-2550 Crystal Structure and Piezoelectric Properties of Five Component Langasite $\text{La}_{3-x}\text{Sr}_x\text{Ta}_y\text{Ga}_{5-x-y}\text{Si}_{1+x-2y}\text{O}_{14}$

09:30-09:45

Hitoshi Ohsato

Nagoya Industrial Science Research Institute

FP-0235 Electromechanical, Piezoelectric and Microstructure Study of the $(1-x)\text{Ba}(\text{Zr}_{0.2}\text{Ti}_{0.8})\text{O}_{3-x}(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ System

09:45-10:00

Matias Acosta, Heide Humburg, Wook Jo, Michael Sherrer, Ljubomira Ana Schmitt, Hans-Joachim Kleebe, Jürgen Rödel

Technische Universität Darmstadt

FP-1071 Effect of Intermixing and Composition on Polarization of Ferroelectric Superlattices

10:00-10:15

Khian-Hooi Chew¹, Kok-Geng Lim¹, Hock-Lye Ong²

¹University of Malaya, ²Universiti Sains Malaysia

Nov. 13, 2013 (Wed.)

FP-5 (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials 5)

Samda A

Chair : Prof. Bo-Ping Zhang (University of Science and Technology Beijing)

13:00-14:30

FP-1907 Temperature-Insensitive Strain Behavior in KNN-based Lead-Free Piezoceramics

13:00-13:30

Ke Wang¹, Fang-Zhou Yao¹, Wook Jo², Danka Gobeljic³, Vladimir V. Shvartsman³, Doru C. Lupascu³, Jing-Feng Li¹, Jürgen Rödel²

Invited Speech

¹Tsinghua University, ²Technische Universität Darmstadt, ³Universität Duisburg-Essen

FP-5006 Giant Electric-field-induced Strain in Bi-based Lead-free Piezoelectric Ceramics

13:30-14:00

Hyoung-Su Han¹, Wook Jo², Jae-Shin Lee¹

Invited Speech

¹University of Ulsan, ²Technische Universität Darmstadt

FP-3809 Characteristics of Nanosized BaTiO₃ Powder Synthesized by Co-precipitation Process Assisted by High Energy Ball Milling

14:00-14:15

Xin He¹, Youn-Kyu Choi², Sung-Soo Ryu¹

¹Korea Institute of Ceramic Engineering and Technology, ²Samsung Fine Chemical

FP-2840 Origin of Polar Nano Regions (PNR) in Relaxor Ferroelectrics: Nonlinearity, Discrete Breather Formation and Charge Transfer

14:15-14:30

Annette Bussmann-Holder

Max-Planck-Institute for Solid State Research

Nov. 13, 2013 (Wed.)

FP-6 (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials 6)

Samda A

Chairs : Prof. Hajime Nagata (Tokyo University of Science)

15:00-16:45

Prof. Hitoshi Ohsato (Nagoya Industrial Science Research Institute)

FP
Oral**FP-1829 Dielectric Enhancement of Barium Titanate-based Nano-complex Ceramics with Heteroepitaxial Interfaces**

15:00-15:30

Invited Speech

Satoshi Wada, Hideto Kawashima, Yoshinobu Hirose, Shuhei Tsukamoto, Shintaro Ueno, Kouichi Nakashima, Nobuhiro Kumada

*University of Yamanashi***FP-4454 Preparation and Electrical Properties of BNT-based Lead-free Piezoelectric Thick Films**

15:30-16:00

Invited Speech

Haibo Zhang, Wook Jo, Jiadong Zang, Jürgen Rödel

*Technische Universität Darmstadt***FP-3897 Investigations of Ferroelectric Polarization Switching in Potassium Nitrate Composite Films**

16:00-16:15

Neeraj Kumar¹, Jasbir Singh Hundal²¹Amity University Rajasthan, ²Giani Zail Singh Punjab Technical University Campus**FP-2474 Microstructure and Electrical Properties of Li-, Ta-, Sb- Modified NKN/PVDF-TrFE Composites by Tape-casting Method**

16:15-16:30

Choong-Hyuck Lim¹, Joong-Hee Nam¹, Ji-Sun Yun¹, Young-Hun Jeong¹, Jeong-Ho Cho¹, Jong-Hoo Paik¹, Yong-Soo Cho²¹KICET, ²Yonsei University**FP-4127 Synthesis of Lead Free Air Sintered (Bi1/2A1/2)-modified BaTiO3 (A=Na, K) PTC Ceramics by Ca Addition**

16:30-16:45

Hiroaki Takeda, Mohammad A. Zubair, Hitomi Akutsu, Takuya Hoshina, Takaaki Tsurumi

Tokyo Institute of Technology

Nov. 12, 2013 (Tue.)

FP-1 (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials 1)

Conference Room Lobby

Chairs : Prof. Ke Wang (Tsinghua University)

16:30-18:00

Dr. Torsten Granzow (Centre de Recherche Public-Gabriel Lippmann)

FP-1979 Ferroelectric Properties of Ba_{1-x}EuxTiO₃ Ceramics

Byeong-Eog Jun¹, Seongmun Eom¹, Suyeol Lee¹, Dong-Jin Kim², Byung Chun Choi³

¹Korea Science Academy of KAIST, ²Pusan National University, ³Pukyong National University

FP-2012 Ferroelectric Properties and Current Conduction in Single Domain BiFeO₃ Thin Films

Seiji Nakashima¹, Taiki Ito¹, Hironori Fujisawa¹, Takeshi Kanashima², Masanori Okuyama², Masafumi Kobune¹, Masaru Shimizu¹

¹University of Hyogo, ²Osaka University

FP-2116 The Temperature Dependences of Quasi Two Dimensional Electron Phonon Interacting System in CdS, ZnS and GaN

Su Ho Lee

Donga University

FP-2344 Ferroelectric Property of Sm₂O₃:(Ba(Zr,Ti)₂O₇-(Ba,Ca)TiO₃) Compositd Ceramics

Jin-Ho Choi, Chang Won Ahn, Sung-sik Won, Hae Jin Seog, Song A Chae, Ill Won Kim

University of Ulsan

FP-2369 In-Situ Diffraction Studies of Electric-field-induced Strain Response in Polycrystalline Composite Materials

Neamul H Khansur¹, Matias Acosta², Claudia Groh², Wook Jo², Jürgen Rödel², John Daniels¹

¹The University of New South Wales, ²Technische Universität Darmstadt

FP-2494 Photovoltaic Effect of PbTiO₃/TiO₂ Heterostructure Nanotube using TiO₂ Films

Sung Sik Won, Chang Won Ahn, Ill Won Kim

University of Ulsan

FP-2683 Effects of V₂O₅ Addition on the Microstructure and Piezoelectric Properties of (Li, Na, K) (Nb, Ta, Sb)O₃ Ceramics

Kab Soo Lee¹, Ju Hyun Yoo¹, Jae Il Hong²

¹Semyung University, ²Dong Seoul College

FP-2695 Local Piezoelectricity Studies in Strontium Titanate - Bismuth Titanate Ceramics

Robertas Grigalaitis¹, Sarunas Bagdzevicius¹, Juras Banys¹, Evaldas Tornau², Igor Bdikin³, Andrei Kholkin³, Karlis Bormanis⁴, Andris Sternbergs⁴

¹Vilnius University, ²Center for Physical Sciences and Technology, ³University of Aveiro, ⁴University of Latvia

FP-2702 A Study on the Dielectric and Piezoelectric Properties and Temperature Sta-bility of (Na, K)(Nb, Sb)O₃ Ceramics for Piezoelectric Actuator

Sun Min Byeon, Kab Soo Lee, Ju Hyun Yoo
Semyung University

FP-2717 Piezoelectric Properties and Temperature Stability of (Ba_{0.85}Ca_{0.15})(Ti_{1-x}Zr_x)O₃ Ceramics

SangHoon Sin, JuHyun Yoo
Semyung University

FP-2719 Electrocaloric Effect of Lead-free (Ba,Ca)(Zr,Ti)O₃ Ferroelectric Ceramics

YouSeok Kim¹, JuHyun Yoo¹, YeongHo Jeong², DongSoo Paik³
¹*Semyung University*, ²*Korea National of University Transportation*, ³*KIST*

FP-2805 A Study on the Control Characteristics of One-Link Manipulator by using ER Fluids

Sung-Cheol Jang
Korea Aviation Polytechnic College

FP-2863 Low Temperature Sintering and Piezoelectric Properties of CuO-added 0.6Pb(Zr_{0.43}Ti_{0.57})O₃-0.4Pb(Zn_{1/6}Ni_{1/6}Nb_{1/3})O₃

Seung Ho Han, Yu Ri Cho, Geun Jun Park, Hyung-Won Kang, Hyeung-Gyu Lee
Korea Electronics Technology Institute

FP-2934 Strain Enhancement and Temperature Dependent Structural Evolution of Lead-free Bi_{0.5}Na_{0.5}TiO₃-BaTiO₃-SrZrO₃ Ceramics

Adnan Maqbool¹, Jamil Ur Rahman¹, Ali Hussain¹, Jong Kyu Park¹, Tae Gone Park¹, Jae Sung Song², Myong Ho Kim¹
¹*Changwon National University*, ²*Korea Electrotechnology Research Institute*

FP-2938 Effects of Bi Content on Electrical Properties of La-doped Bi₆Fe₂Ti₃O₁₈ Thin Films Prepared by Chemical Solution Deposition Method

Hae Jin Kim, Jin Won Kim, Chinnambedu Murugesan Raghavan, Ji Ya Choi, Eun Ju Kim, Sang Su Kim
Changwon National University

FP-2988 Fabrication and Characterization of Lead-free Bi_{0.5}(Na_{0.80}K_{0.20})_{0.5}TiO₃-Ba(Ti_{0.90}Sn_{0.10})O₃ Piezoelectric Ceramics

Pharatree Jaita, Anucha Watcharapasorn, Sukanda Jiansirisomboon
Chiang Mai University

FP-3097 Electrical Properties of Perovskite-type Ferroelectric Ceramics with Strontium Bismuth Niobate Complex Structures

Orapim Namsar¹, Anucha Watcharapasorn¹, Mark Hoffman², Julia Glaum², Sukanda Jiansirisomboon¹
¹*Chiang Mai University*, ²*University of New South Wales*

FP-3201 Fabrication, Phase, Microstructure and Electrical Properties of BNT-doped (La,Sr)TiO₃ Ceramics

Preeyakarn Eaksuwanchai, Sukanda Jiansirisomboon, Anucha Watcharapasorn
Chiang Mai University

- FP-3407 Effect of Poling on Piezoelectric and Ferroelectric Properties of Bi_{0.5}Na_{0.5}Ti_{1-x}Zr_xO₃ Ceramics**
Ampika Rachakom, Sukanda Jiansirisomboon, Anucha Watcharapasorn
Chiang Mai University
- FP-3976 Electrical and Magnetic Properties of (Bi_{0.5}Na_{0.5})TiO₃ - CoFe₂O₄ Ceramics**
Narumon Lertcumfu¹, Parkpoom Jarupoom²
¹*Chiang Mai University*, ²*Rajamangala University of Technology Lanna (RMUTL)*
- FP-4083 Relaxor Behavior of BiFeO₃-(Bi,K)TiO₃ Ceramics**
Chae Il Cheon¹, Jin Hong Choi¹, Jeong Seog Kim¹, Jiadong Zang², Wook Jo², Jürgen Rödel²
¹*Hoseo University*, ²*Technical University of Darmstadt*
- FP-4262 Effects of NiO Nanoparticles on Electrical and Magnetoelectric Properties of BNKT/NiO Piezoelectric Lead-free Composites**
Chardpan Chueaun, Chanade Wichasilp, Chatchai Kruea-In
Chiang Mai Rajabhat University
- FP-4498 Low-temperature Sintering of (Ba,Ca)(Ti,Sn) O₃ Lead-free Piezoelectric Ceramics by adding Li₂CO₃**
Lei Zhao, Bo-Ping Zhang, Peng-Fei Zhou, Li-Feng Zhu
University of Science and Technology Beijing

Nov. 13, 2013 (Wed.)

FP-2 (Ferroelectrics and Piezoelectrics: Fundamentals and New Materials 2)

Conference Room Lobby

Chairs : Dr. Wook Jo (Technische Universität Darmstadt)

16:30-18:00

Prof. Jing Feng Li (Tsinghua University)

- FP-0237 Temperature and Frequency Dependent Properties of the Bi_{1/2}Na_{1/2}TiO₃-25SrTiO₃ Lead-free Incipient Piezoceramic**
Matias Acosta, Wook Jo, Michael Scherrer, Ljubomira Ana Schmitt, Hans-Joachim Kleebe, Jürgen Rödel
Technische Universität Darmstadt
- FP-0282 Role of Dysprosium and Magnesium of a Thin Layer Multilayer Ceramic Capacitor for Higher Capacitance**
Jung Rag Yoon, D.S Shin, MK Kim
Samwha Capacitor
- FP-0312 Quantitative Phase Analysis of Lead Magnesium Niobate-Lead Titanate by Structural Refinement using X-ray Powder Diffraction Data**
Ki-Bok Kim, Yun-Hee Lee, Yong-Il Kim
KRISS
- FP-0426 Dielectric and Piezoelectric Properties of BiNaKTiO₃-BiAlO₃/BiNaTiO₃ Ceramic-ceramic Layered Composites**
Soon-Jong Jeong, Min-Soo Kim, Dong-hwan Lim
Korea Electrotechnology Research Institute

- FP-0460 Electromechanical Properties of Textured NKLNT Lead-free Piezoelectric Ceramics**
Sin-Woong Kim¹, Juhyeong Jo¹, Sang-Hyeon Lee², Min-Soo Kim¹, Soon-Jong Jeong¹, In-Sung Kim¹, Jaesung Song¹
¹Korea Electrotechnology Research Institute, ²Gyeongsang National University
- FP-0485 High Performance Lead Free Piezoelectric Ceramic Composite**
Yu-kyung Kim, Soon-Jong Jeong, In-Sung Kim, Min-Soo Kim, Jae-Sung Song
Korea Electrotechnology Research Institute
- FP-0565 High-Power Piezoelectric Characteristics of Textured (Sr0.7Ca0.3)2Bi4Ti5O18 Ceramics**
Shun Endo, Hajime Nagata, Tadashi Takenaka
Tokyo University of Science
- FP-0584 Comparison of Structural, Ferroelectric, Strain, and Piezoelectric Properties between Li- and La- Modified Bismuth Sodium Potassium Titanate Ceramics**
Thi Hinh Dinh, Hyoung-Su Han, Hyun-Young Lee, Van Quyet Nguyen, Jae-Shin Lee
University of Ulsan
- FP-0626 Piezoelectric Properties and Microstructures of CuO-doped (Ba0.98Ca0.02)(Ti0.94Sn0.06)O3 Ceramics**
Bo Wu, Dingquan Xiao, Tao Huang, Zhuo Wang, Chao Liu, Fangxu Li, Jiagang Wu, Jianguo Zhu
Sichuan University
- FP-0629 The Phase Transition and Electrical Properties of (1-x)K0.5Na0.5NbO3-xBi0.5Na0.5Zr0.8Ti0.2O3 Lead-free Piezoelectric Ceramics**
Zhuo Wang, Dingquan Xiao, Tao Huang, Jiagang Wu, Fangxu Li, Bo Wu, Jianguo Zhu
Sichuan University
- FP-0637 Construction of New Phase Boundary Separating Rhombohedral and Tetragonal Phases in (0.977-x)(K0.5Na0.5)NbO3-0.023Bi0.5(Na0.9K0.1)0.5TiO3-xSrZrO3 Lead-free Ceramics**
Tao Huang, Dingquan Xiao, Zhuo Wang, Chao Liu, Bo Wu, Jiagang Wu, Jianguo Zhu
Sichuan University
- FP-0775 Effect of PbO Content on the Dielectric, Piezoelectric Properties and Energy-storage Performance of Bi(Ni1/2Ti1/2)O3-PbTiO3 Thin Films**
Zhenkun Xie, Zhenxing Yue
Tsinghua University
- FP-0832 Electrical Properties of Chemical Solution Deposited Vanadium Doped Bi6Fe2Ti3O18 Thin Films**
Chinnambedu Murugesan Raghavan, Jin Won Kim, Hae Jin Kim, Ji Ya Choi, Eun Ju Kim, Sang Su Kim
Changwon National University
- FP-1034 Impedance Spectroscopy of Lead-free Nb-doped BNKT-ST Piezoelectric Ceramics**
Rizwan Ahmed Malik¹, Amir Ullah¹, Hashim Naseer¹, Ali Hussain², Thi Hinh Dinh¹, Ill Won Kim¹, Jae-Shin Lee¹
¹University of Ulsan, ²Changwon National University

- FP-1157 Study on Conduction Behavior of (Na_{0.53}K_{0.47})NbO₃ Piezoelectric Ceramics**
Gyung Hyun Ryu¹, Myong Ho Kim¹, Jin Soo Kim¹, Myang Hwan Lee¹, Matias Acosta², Wook Jo², Jürgen Rödel², Chae Il Cheon³
¹Changwon National University, ²Technische Universität Darmstadt, ³Hoseo University
- FP-1201 Fabrication of Highly Oriented Barium Titanate-Bismuth Potassium Titanate Ceramics by Microstructural Control**
Katsuya Inaba¹, Shintaro Ueno¹, Kouichi Nakashima¹, Yuichi Yamamoto², Hiroshi Hayashi³, Satoshi Wada¹
¹Yamanashi University, ²Konoshima Chemical Co., Ltd., ³Hayashi Chemical Industry Co., Ltd.
- FP-1243 Field Induced Strain Response of Lead-free Bi_{0.5}Na_{0.5}TiO₃-BaTiO₃-BaZrO₃ Ceramics**
Jamil Ur Rahman, Ali Hussain, Adnan Maqbool, Gyung Hyun Ryu, Tae Kwon Song, Won Jong Kim, Myong Ho Kim
Changwon National University
- FP-1275 Electric-field-induced Phase Transition and High Strain of 0.99[(Bi_{0.5}Na_{0.4}K_{0.1})_{1-x}Lax]TiO₃]0.01[Ba_{0.7}Sr_{0.3}]TiO₃ Lead-free Piezoelectric Ceramics**
Amir Ullah¹, Chang Won Ahn¹, Aman Ullah², Ill Won Kim¹, Rizwan Ahmed Malik¹, Jae Shin Lee¹
¹University of Ulsan, ²University of Science and Technology, Bannu
- FP-1286 High-Power Piezoelectric Characteristics at High-Temperature for (Bi_{0.5}Na_{0.5})TiO₃-based Lead-Free Piezoelectric Ceramics**
Shinya Someno, Hajime Nagata, Tadashi Takenaka
Tokyo University of Science
- FP-1435 Preparation of (Bi_{0.5}K_{0.5})TiO₃-Bi(Mg_{0.5}Ti_{0.5})O₃-BiFeO₃ Ceramics by Nanodomain Engineering and Their Piezoelectric Properties**
Haruumi Kamei¹, Satoshi Wada¹, Shintaro Ueno¹, Kouichi Nakashima¹, Yoshihiro Kuroiwa², Hisashi Minemoto³
¹Yamanashi University, ²Hiroshima University, ³Panasonic Healthcare Co., Ltd.
- FP-1803 Electric Generation Characteristics of Shock Loaded BaTiO₃ Ceramics with Various Grain Size**
Chang Eui Seo, Kyung Ho Cho, Yoon Soo Choi
Agency for Defense Development
- FP-1815 Piezoelectric and Ferroelectric Properties of Mn Modified BiFeO₃-BaTiO₃ Bulk Ceramics**
Dajeong Kim¹, Myanghwan Lee¹, Jinsu Park¹, Myong-Ho Kim¹, Sangwook Kim¹, Sangsoo Kim¹, Won-Jeong Kim¹, Dalhyun Do², Taekwon Song¹
¹Changwon National University, ²Keimyung University
- FP-1834 Crystal Structure of x PbTiO₃ (1-x) Pb(Mg_{1/3}Nb_{2/3})O₃ (x=0.1-0.6) Ceramics under High Pressure**
Young Ho Ko, Kwang Joo Kim, Kyung Ho Cho, Chang Eui Seo
ADD

FP-1877 Ferroelectric and Piezoelectric Properties of BiFeO₃ and BiFeO₃-BaTiO₃ Bilayer Thin Film

Sangwook Kim¹, Myang Hwan Lee¹, Hae In Choi¹, Da Jeong Kim¹, Jin Su Park¹, Dalhyun Do², Sang Su Kim¹, Myong-Ho Kim¹, Tae Kwon Song¹, Won-Jeong Kim¹

¹Changwon National University, ²Keimyung University

FP-1934 Lead-free Piezoelectric Characteristics of 0.935(Bi_{0.5}Na_{0.5})TiO₃-0.065BaTiO₃ Thin Films Processed by Pulsed Laser Deposition

Jinsu Park¹, Myanghwan Lee¹, Dajeong Kim¹, Myong-Ho Kim¹, Sangwook Kim¹, Hae In Choi¹, Sangsoo Kim¹, Won-Jeong Kim¹, Dalhyun Do², Taekwon Song¹

¹Changwon National University, ²Keimyung University

FP-3660 Phase Transition Study on the P(VDF-TrFE) Ferroelectric Polymer Films

Chisup Jung, Pyungwoo Jang, Kyu Seomoon, Kwangho Kim
Cheongju University

Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications (FD)

Oral Presentation

Nov. 12, 2013 (Tue.)

FD-1 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 1)

Samda B

Chairs : Dr. Chong-Yun Kang (Korea Institute of Science and Technology)

09:00-10:15

Prof. Jasbir S. Hundal (Giani Zail Singh Punjab Technical University Campus)

FD-0220 Comparison of Sintering Behavior and Piezoelectric Properties of (K,Na)NbO₃- based Ceramics Sintered in Conventional and Microwave Furnace

09:00-09:15

Mohammad Reza Bafandeh¹, Raziye Gharahkhani², Mohammad Hasan Abbasi², Ali Saidi², Jae-Shin Lee³, Hyoun-Su Han³

¹University of Kashan, ²Isfahan University of Technology, ³University of Ulsan

FD-0556 The Hardening of CuO-(K, Na)NbO₃ via Post-annealing with Argon

09:15-09:30

Yaoyang Liu, Takafumi Maeda, Yokouchi Yuriko, Takeshi Morita

University of Tokyo

FD-0926 Effect of Sintering Parameters on Electrical and Piezoelectric Properties of (K_{0.48}Na_{0.48}Li_{0.04})(Nb_{0.96}Sb_{0.04})O₃

09:30-09:45

Roopam Gaur¹, K. Chandramani Singh¹, Radhapiyari Laishram²

¹University of Delhi, ²Solid State Physics Laboratory

FD-3955 Effect of the Addition of 0.5Li₂O - 0.5K₂O - 2B₂O₃ Glass on Densification, Dielectric, Piezoelectric and Ferroelectric Properties of K_{0.5}Na_{0.5}NbO₃ Ceramics

09:45-10:00

Bharathi Ponraj, K.B.R Varma

Indian Institute of Science

FD-4051 Lowering of Driving Electric Field in Bi-Based Lead-Free Ceramics by Embedding BaTiO₃ Particles

10:00-10:15

Dae-Jun Heo, Chang Hyo Hong, Hyoun-Su Han, Jin Kyu Kang, Chang-won Ahn, Ill Won Kim, Jae-Shin Lee

University of Ulsan

Nov. 12, 2013 (Tue.)

FD-2 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 2)

Samda B

Chair : Dr. Ashok Kumar (CSIR-National Physical Laboratory)

13:00-14:30

FD-2821 Comparative Study on Ferroelectric Properties of Composite Films of Various Nitrates and Nitrites in PVA Matrix

13:00-13:30

Invited Speech

Jasbir Singh Hundal¹, Navneet Dabra²

¹Giani Zail Singh Punjab Technical University Campus, ²Baba Farid College of Engineering and Technology

FD
Oral

FD-0910 Ceramic-polymer Composites with Low Dielectric Loss for Microwave Antennas and Wireless Sensors

13:30-13:45

Li Zhang, Zhenxing Yue, Longtu Li
Tsinghua University

FD-2924 Ferroelectric Properties of Sodium Nitrite- Starch Composite Films

13:45-14:00

Baljinder Kaur¹, Lakhbir Singh¹, Navneet Dabra², Jasbir Singh Hundal³
¹Punjab University Guru Kashi Campus Talwandi Sab, ²Baba Farid College of Engineering and Technology, ³Giani Zail Singh Punjab Technical University Campus

FD-3300 Piezoelectric Properties of Lead Zirconate Titanate Ceramic Fiber / Epoxy Composites

14:00-14:15

Chang Jun Jeon¹, Duc Thang Le², Young Hun Jeong³, Ji Sun Yun³, Joong Hee Nam³, Jong Hoo Paik³, Eung Soo Kim¹, Jeong Ho Cho³
¹Kyonggi University, ²Sungkyunkwan University, ³Korea Institute of Ceramic Engineering and Technology

FD-4361 Piezoresistive Strain Sensor Fabricated from AC-Plasma Polymerized Polypyrrole

14:15-14:30

Worawan Bhanthumnavin, Decha Lapsongphol, Boonchoat Paosawatyanong
Chulalongkorn University

Nov. 12, 2013 (Tue.)

FD-3 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 3)

Samda B

Chair : Prof. Jihoon Kim (Kongju National University)

15:00-16:30

FD-4472 Studies on Magnetoflexoelectric for Ferroelectric and Ferromagnetic Composites

15:00-15:30

Ashok Kumar, Hitesh Borkar

Invited Speech

CSIR-National Physical Laboratory

FD-0416 Chemical Solution Processing and Properties of Multiferroic BiFeO₃-PbTiO₃/CoFe₂O₄ Layered Thin Films

15:30-15:45

Wataru Sakamoto, Daiki Maeda, Makoto Moriya, Toshinobu Yogo
Nagoya University

FD-3663 Multiferroic Properties of YCrO₃ Thin Films on Rh Single Crystals

15:45-16:00

Jeongdae Seo, Jong Yeog Son, Dongwoo Kim, Eunsoo Jeong
Kyung Hee University

FD-1365 Study of Non-contact Force Sensor using Quartz Crystal Resonator and a Pair of Spiral Coils

16:00-16:15

Teppe Uchiho¹, Kazuo Uzuka², Hideyuki Suenaga³, Takeshi Morita¹
¹The University of Tokyo, ²TOK BEARING CO., LTD., ³The University of Tokyo Hospital

FD-2939 Piezoresponse Force Microscopy Studies on the Influences of Domain Structures on Local Piezoelectric Properties in Lead-free NKN-based Ceramics

16:15-16:30

Duc Thang Le¹, Chang Jun Jeon², Dae Ho Yoon¹, Young Hun Jeong³, Joong Hee Nam³, Ji Sun Yun³, Jong Ho Paik³, Jeong Ho Cho³
¹Sungkyunkwan University, ²Kyonggi University, ³Korea Institute of Ceramic Engineering and Technology

Nov. 13, 2013 (Wed.)

FD-4 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 4)

Samda B

Chair : Dr. Jungho Ryu (Korea Institute of Materials Science)

09:00-10:15

FD-3590 Wide Scan and High Speed Piezoelectric Optical Micro Scanner

09:00-09:30 Jun Akedo, Jae-Hyuk Park

Invited Speech AIST

FD-2028 Fabrication of Piezoelectric Micromachined Ultrasonic Transducers using Thick PZT Film Deposited by Aerosol Method

09:30-09:45

Joontaek Jung¹, Jungho Ryu², Hongsoo Choi¹

¹Daegu Gyeongbuk Institute of Science & Technology, ²Korea Institute of Material Science

FD-0302 Synchrotron X-ray Absorption Spectroscopy Investigation of Local Structure in Pb(Zr,Ti)O₃ and BaTiO₃ Ceramics

09:45-10:15

Invited Speech

Rattikorn Yimmirun, Jaru Jutimoosik, Atipong Bootchanont, Sujittra Chandarak, Teerawat Monnor, Muangjai Unruan, Saroj Rujirawat
Suranaree University of Technology

Nov. 13, 2013 (Wed.)

FD-5 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 5)

Samda B

Chair : Prof. Rattikorn Yimmirun (Suranaree University of Technology)

13:00-14:30

FD-1389 Super Lateral Grain Growth of Ferroelectric Oxide Thin Films by Excimer Laser Annealing

13:00-13:15

Min-Gyu Kang^{1,2}, Woo-Sung Choi¹, MyungSub Noh¹, Hyun-Cheol Song¹, Woo-Suk Jeong¹, Sahn Nahm², Seok-Jin Yoon¹, Chong-Yun Kang^{1,2}

¹Korea Institute of Science and Technology, ²Korea University

FD-0950 Frequency Dependence of Dielectric Properties in Graded BaTiO₃

13:15-13:30

Oratai Jongprateep, Tunchanoke Khongnakhon
Kasetsart University

FD-0997 Synthesis and Characterization of BaTi_{0.95}W_{0.05}O₃ Ferroelectric Ceramic by Mechanical Activation and Conventional Processes: A Comparative Study

13:30-13:45

Sheela Devi¹, A. K Jha²

¹Maharaja Surajmal Institute of Technology, ²Delhi Technological University

FD-1030 Preparation and Characterization of Macroporous (Ba, Sr)TiO₃ Ceramics Derived from Particle-Stabilized Emulsions

13:45-14:00

Xiang Wang, Jin-hong Li, Wei-min Guan, Hong-wei Zhao
China University of Geosciences

FD
Oral

FD-1413 Studies on Potassium Niobate Thick Films by Ultrasonic assisted Hydrothermal Method

14:00-14:15 Ryo Kudo¹, Gaku Isobe¹, Peter Bornmann², Tobias Hemsel², Takeshi Morita¹

¹The University of Tokyo, ²The University of Paderborn

FD-3952 Ferroelectric, Pyroelectric and Optical Properties of Ba₅Li₂Ti₂Nb₈O₃₀ Ceramics

14:15-14:30 Praveena Kuruva, K. B. R. Varma

Indian Institute of Science

Nov. 13, 2013 (Wed.)

FD-6 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 6)

Samda B

Chairs : Prof. Zhenxing Yue (Tsinghua University)

15:00-16:30

Prof. Hongsoo Choi (Daegu Gyeongbuk Institute of Science and Technology)

FD-0569 Switchable Photo-Induced Current of Ferroelectric YMnO₃ Epitaxial Films

15:00-15:30 Norifumi Fujimura, Hiroshi Uga, Takeshi Yoshimura, Atsushi Ashida

Invited Speech Osaka Prefecture Univ.

FD-3521 Politico-Engineering – In Actuator/Piezoelectric Devices –

15:30-16:00 Kenji Uchino

Invited Speech Office of Naval Research, The Pennsylvania State University

FD-0341 Feasibility of Real-time Monitoring of Soil Compaction using Piezoelectric Material

16:00-16:15 Mohammad Firdous Hairi, Rudy Tawie

Universiti Teknologi MARA Sarawak

FD-1342 The Effect of Tip-Mass on Impact-Based Piezoelectric Energy Harvesting System

16:15-16:30 Jung Hwan Ahn, Min Sik Woo, Sung Joo Hwang, Seong Kwang Hong, Daniel Song, Tae Hyun Sung

Hanyang University

Nov. 14, 2013 (Thu.)

FD-7 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 7)

Samda B

Chair : Prof. Kenji Uchino (Penn State University)

09:00-10:00

FD-2062 Piezoelectric Thin-film based MEMS for Biomedical Applications

09:00-09:30 Hongsoo Choi

Invited Speech Daegu Gyeongbuk Institute of Science and Technology

FD-2757 Orientation Control of BiFeO₃ Thin Films by using LaNiO₃ for Vibration Energy Harvester Application

09:30-09:45

Kento Kariya¹, Takeshi Yoshimura¹, Shuichi Murakami², Norifumi Fujimura¹

¹Osaka Prefecture University, ²Technology Research Institute of Osaka Prefecture

FD-0779 Synthesis of BaTiO₃/Ni Composite by Sol-gel Process in Nitrogen Atmosphere for Energy Storage Capacitors

09:45-10:00

Saleem Mohsin¹, I S Kim², Songhak Yoon³, J S Song², S J Jeong², M S Kim², Y K Kim²

¹University of Science and Technology, ²KERI, ³Empa

Nov. 14, 2013 (Thu.)

FD-8 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 8)

Samda B

Chair : Prof. Tae Gone Park (Changwon National University)

13:00-14:15

FD
Oral

FD-2353 Simulation Model for Resonant-type SIDM Actuator using Equivalent Circuit

13:00-13:15

Yohei Tadano, Takeshi Morita

Tokyo University

FD-3903 Electromechanical Displacement of Soft/hard PZT Bi-layer Composite Actuator

13:15-13:30

Piyalak Ngernchuklin¹, Jungho Ryu², Chutima Eamchotchawalit¹

¹Thailand Institute of Scientific and Technological Research (TISTR), ²Korea Institute of Materials Science

FD-4322 System Identification and Nonlinear PID Control of a Piezoelectric Actuator

13:30-13:45

Wenlei Xiao¹, Yanqiang Liu², Yuan Zhang¹, Shuxiang Dong¹

¹Peking University, ²Beihang University

FD-0790 Structural and Tunable Characteristics of Ba(ZrxTi1-x)O₃ Films Prepared by RF-magnetron Sputtering using Metal Target

13:45-14:00

Jinwoong Kim¹, Hiroshi Funakubo², Hiromi Shima¹, Ken Nishida¹, Takashi Yamamoto¹

¹National Defense Academy, ²Tokyo Institute of Tech.

FD-4282 Fabrication of Pyrochlore Phase Free PMN-PZT Ceramics via the Combustion Technique

14:00-14:15

Chittakorn Kornphom, Theerachai Bongkarn

Naresuan University

Nov. 14, 2013 (Thu.)

FD-9 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 9)

Samda B

Chair : Prof. Jinbao Xu (Xinjiang Technical Institute of Physics & Chemistry)

15:00-16:15

FD-0528 Self-sensing Control of Piezoelectric Actuator based on Real-time Permittivity Detection

15:00-15:30

Takeshi Morita, Hideyuki Ikeda

Invited Speech

The Univ. of Tokyo

FD-1747 Switchable Ferroelectric Diode Effect in BiFeO₃ Nano-islands

15:30-15:45

Taejilb Choi¹, Jihoon Jeon², Yunseok Kim³, Hosang Lee¹, Ho-young Joo¹, Sergei V. Kalinin⁴, Baeho Park²

¹Sejong University, ²Konkuk University, ³Sungkyunkwan University, ⁴Oak Ridge National Laboratory

FD-3296 Growth ZnSnO₃ Thin Films and/or Nanowires by Pulsed Laser Deposition

15:45-16:00 Trung Manh Tran, Tung Thanh Duong, Soon Gil Yoon
Chungnam National University

FD-0859 Application of PVDF Piezoelectric Film to the Development of Artificial Basilar Membrane

16:00-16:15 Youngdo Jung, Hanmi Kang, Jun-Hyuk Kwak, Seongwoo Kim, Young Hwa Lee, Shin Hur, Su A Park,
 Wan Doo Kim
Korea Institute of Machinery and Materials

Nov. 15, 2013 (Fri.)

FD-10 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 10)

Samda B

Chair : Prof. Norifumi Fujimura (Osaka Prefecture University)

09:00-10:15

FD-0263 Dielectric Relaxation in BiNbO₄ – based Ceramics

09:00-09:30 Dionizy Czekaj, Agata Lisinska-Czekaj
Invited Speech University of Silesia

FD-1976 Dielectric and Impedance Study of (1-x)Ba(Zr_{0.07}Ti_{0.93})O₃-(x)BaFe_{0.5}Ta_{0.5}O₃ Binary Solid- solution

09:30-09:45 Chatchai Kruea-In¹, Gobwute Rujijanagul²
¹Chiang Mai Rajabhat University, ²Chiang Mai University

FD-0645 Effects of Ca²⁺ Substitution On Dielectric Properties of (Ba_{0.7}Sr_{0.3})(Ti_{0.9}Zr_{0.1})O₃ Ceramics

09:45-10:00 Young Jun Eoh, Eung Soo Kim
Kyonggi University

FD-0941 Microwave Dielectric Properties of Cordierite Glass-Ceramics

10:00-10:15 Bo Kyeong Choi, Eung Soo Kim
Kyonggi University

Nov. 15, 2013 (Fri.)

FD-11 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 11)

Samda B

Chair : Prof. Eung Soo Kim (Kyonggi University)

10:45-12:00

FD-1908 Design of Impact Type Piezoelectric Energy Harvesting System for Increasing Current and Durability of Piezoelectric Ceramics

10:45-11:00 HyunJun Jung, Jae Won Moon, Daniel Song, Se Bin Kim, Seong Kwang Hong, Tae Hyun Sung
Hanyang University

FD-1946 Parametric Study of the Electrode Configurations on MEMS Piezoelectric Energy Harvesting

11:00-11:15 Miso Kim
Korea Research Institute of Standards and Science

FD-2259 PMN-PZT Single Crystal/Ni Cantilever Structured Magnetoelectric (ME) Composites and their ME and Energy Harvesting Properties

11:15-11:30

Jungho Ryu¹, Woon-Ha Yoon¹, Dong-Soo Park¹, Jong-Jin Choi¹, Cheol-Woo Ahn¹, Jong-Woo Kim¹, Byung-Dong Hahn¹, Dae-Yong Jeong²

¹Korea Institute of Materials Science (KIMS), ²Inha University

FD-1399 Designing and Manufacturing of a Piezoelectric Tile for Energy Harvesting from the Footsteps

11:30-11:45

Sung Joo Hwang, Jeong Hun Kim, Jeong Hwan Ahn, Yeong Gyun Kim, Yewon Song, HeeLak Lee, SungPil Moon, Hyeonsu Park, Tae Hyun Sung

Hanyang University

FD-4245 Quantitative Evaluation of Ultrasonic Cavitation Amounts by using PVDF Piezoelectric Film

11:45-12:00

Hyun Du Jeong¹, Ju Young Kim¹, Jeong Hwa Min¹, Si Cheol Noh², Heung Ho Choi¹

¹Inje University, ²International University

FD
Oral

Nov. 12, 2013 (Tue.)

FD-1 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 1) Conference Room Lobby

Chair : Prof. Wataru Sakamoto (Nagoya University)

16:30-18:00

FD
Poster

FD-0258 Fabrication and Study of Bismuth Niobate-PVC Composites

Agata Lisinska-Czekaj, Joanna Micior, Dionizy Czekaj
University of Silesia

FD-2452 All-thin-film MEMS based PZT/Terfenol-D Magnetolectric Devices

Junwoo Lee¹, Yong Kyoung Yoo¹, Jun Hyun Han², Jeong Hoon Lee¹
¹Kwangwoon University, ²Chungnam National University

FD-2501 Electromechanical Characteristic Simulations of Piezoelectric ABM Structure

Shin Hur, Young Do Jung, Su A Park, Wan Doo Kim
Korea Institute of Machinery and Materials

FD-2545 Fabrication and Characterization of Piezoelectric-driven Microdiaphragm Resonating Sensors

Myung-Sic Chae, Kyo Seon Hwang
Korea Institute of Science and Technology

FD-2620 Micropatterning of Oxide Films by Atmospheric Pressure Plasma Jet assisted Water Lift-off Process

Takahiro Niwa, Takeshi Kawae, Tatsuo Ishijima, Kazuhiro Nakanishi, Yuko Imazawa, Akiharu Morimoto
Kanazawa University

FD-2636 A Monolithic Parallel Flexure-based XY Stage Driven by Differential Piezo Forces

Kee Bong Choi, Jae Jong Lee, Gee Hong Kim, Hyung Jun Lim
Korea Institute of Machinery and Materials

FD-2666 Aerosol Deposition Method Deposited BaTiO₃ Thin Films at Room Temperature for Metal-insulator-metal Capacitor Application

Cong Wang, Hyung-Jun Kim, Sung-Jin Cho, Nam-Young Kim
Kwangwoon University

FD-2809 Dielectric Properties and the Non-reducibility of Sintered Nano BaTiO₃ with Additives

Minwook Oh¹, Hyosoon Shin¹, Donghun Yeo¹, Daeyong Jeong²
¹Korea Institute of Ceramic Engineering and Technology, ²Inha University

FD-2902 Detection of 2,4-dinitrotoluene (DNT) of Sub-ppb Level using Piezoelectric Microcantilever Sensor System with the Sample Preconcentrator

Myung-Sic Chae, Kyo Seon Hwang
Korea Institute of Science and Technology

- FD-2950 Relaxor Behavior and Dielectric Properties of Ca Doping α -BZN Pyrochlore**
Peng Yong, Ding Shihua, Song Tianxiu, Wang Hongni
Xihua University
- FD-3049 High Functional $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$ -based Dielectrics Nano-coated by the Sol-gel Process**
Hui Eun Kim¹, Soon-mi Choi¹, Youn Woo Hong², Sang-Im Yoo¹
¹*Seoul National University*, ²*Korea Institute of Ceramic Eng. & Tech.*
- FD-3073 Lead-free $0.5\text{Ba}(\text{Ti}_{0.8}\text{Zr}_{0.2})\text{O}_3\text{-}0.5(\text{Ba}_{0.7}\text{Ca}_{0.3})\text{TiO}_3$ Nanowire Growth using Pulsed Laser Deposition for Energy Harvesting Applications**
Jae-Ryong Lim, Trung Tran, Soon-Gil Yoon
Chungnam National University
- FD-3135 Effects of Thermal Annealing on Silicon Dioxide (SiO_2) Layer Formed by Rapid Atomic Layer Deposition Method**
Woo-Byoung Kim¹, Dong-Won Choi², Jin-Seong Park²
¹*Dankook University*, ²*Hanyang University*
- FD-3141 Transparent and Flexible Capacitor of the $\text{Bi}_2\text{Mg}_2/3\text{Nb}_4/307\text{-Bi}$ Multi Layer Thin Film using Graphene Electrodes**
Jihyun Park, Soongil Yoon
Chungnam National University
- FD-3157 Triboelectric-Effect-Enabled Energy Harvesting with Arrays of Micro-Arch Shapes**
Jinsung Chun¹, Kyeong Nam Kim¹, Keun Young Lee², Sang-Woo Kim², Jeong Min Baik¹
¹*Ulsan National Institute of Science and Technology (UNIST)*, ²*Sungkyunkwan University (SKKU)*
- FD-3208 Effect of Polarized Particle on Electromechanical Response of Polydimethylsiloxane Composite**
Sumonman Niamlang, Sorapong Pavasupree, Wichean Khawdas, Jaturon Kittisak
Rajamangala University of Technology Thanyaburi
- FD-3227 External DC Poling of Lithium Niobate Fiber Crystals**
Bonghoon Kang¹, Gi-Tae Joo²
¹*Far East University*, ²*Seoul National University of Science & Technology*
- FD-3253 Dielectric and Ferroelectric Properties of Cr_6+ -doped $\text{Bi}_{3.25}\text{La}_{0.75}\text{Ti}_3\text{O}_{12}$ Ceramics**
Pasinee Siriprapa¹, Pharatree Jaita¹, Soodkhet Pojprapai², Anucha Watchrapasorn¹, Sukanda Jiansirisomboon¹
¹*Chiang Mai University*, ²*Suranaree University of Technology*
- FD-3315 Design of a Piezoelectric Micro Pump Imitating Stomach's Peristalsis Depending on the Phase Difference**
Yeongmin Na, Hyunseok Lee, Jongkyu Park
Changwon National University
- FD-3316 Piezoelectric Layer-embedded Microdiaphragm Sensors for the Monitoring of Liquid Viscosity**
Hye Jin Kim, Kyo Seon Hwang
Korea Institute of Science and Technology

FD-3340 Fabrication and Characterization of NKN-based Lead-free Piezoelectric Thin Films using the Modified Sol-gel Method

Ae Ri Yoo, Hee Chul Lee
Korea Polytechnic University

FD-3379 Effect of Carbon Content on Plasma-Induced Damage Resistance of Ultralow Dielectrics

Won-ki Kim, Jin-ok Kim, Sung-min Cho, Seung-hyun Song, Hee-woo Rhee
Sogang University

FD-3646 Giant Dielectric Constants Observed in ZnO Doped Sr(Fe_{0.5}Nb_{0.5})O₃ Ceramics

Thanatep Phatungthane, Gobwute Rujijanagul
Chiangmai University

FD-3829 Stator Shape Dependence Analysis of the Traveling Wave Rotary Type Ultrasonic Motor Performance

Jin-Heon Oh¹, Ji-Ho Kim¹, Min-Hye Park¹, Kee-Joe Lim¹, Mun-Cheol Choi², Chan-Young Moon²
¹Chungbuk National University, ²Samsung Electronics

FD-3965 An Experimental Investigation on Impulse Breakdown Characteristics of Transformer Insulation using Model

Jinho Lee, Jayoon Koo
Hanyang University

FD-3995 Performance Analysis of Unimorph Type Piezo vibration Actuator for Haptic Devices

Ji-Ho Kim, Jin-Heon Oh, Min-Hea Park, Kee-joe Lim
Chung-Buk National University

FD-4065 Characteristics of Ferroelectric Vinylidene Fluoride-trifluoroethylene(VF₂-TrFE) Copolymer Thin Films on Al₂O₃/Si(100) for Metal-Ferroelectric-Insulator-Semiconductor Structure

Sang-Hyun Jeong, Kwang-Ho Kim
Cheongju University

FD-4073 Optimization of Nonstoichiometric CaCu₃Ti₄O₁₂ Thin Films via Continuous Composition Spread Sputtering

Hyo Min Kang¹, Seok-Jin Yoon¹, Yong Soo Cho², Ji-Won Choi¹
¹Korea Institute of Science of Technology, ²Yonsei University

FD-4107 Electrical Properties of Cr₂vO₃-doped ZnO-Co₃O₄ Varistor

You Bi Kim¹, Youn Woo Hong², Young Jin Lee², Sei Ki Kim², Man Ho Jo¹
¹Yonsei University, ²Korea Institute of Ceramic Engineering and Technology

FD-4207 Cantilever Type MEMS Energy Harvesting Device using Single Crystal Lead Magnesium Niobate-lead Titanate (PMN-PT) by Inductively Coupled Plasma (ICP) Etching

Junman Lee, Joonteak Jung, Hongsoo Choi
Daegu Gyeongbuk Institute of Science & Technology

FD-4247 Hydrothermal Synthesis of Monodisperse Ba_{1-x}Sr_xTiO₃ Nanopowder and Its Dielectric Characterization

Changyeon Baek¹, San Moon¹, Chang-Hak Choi², Do Kyung Kim¹

¹Korea Advanced Institute of Science and Technology, ²Samsung electromechanics

Nov. 14, 2013 (Thu.)

FD-2 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 2) Conference Room Lobby

Chairs : Dr. Praveena Kuruva (Indian Institute of Science)

16:30-18:00

Dr. Youngdo Jung (Korea Institute of Machinery and Materials)

FD
Poster

FD-1250 Hybrid Architecture of Generator using ZnO Nanosheets and Photovoltaic Device

Gyu Cheol Yoon, Kyung-Sik Shin, Keun Young Lee, Ju Hyuck Lee, Sang-Woo Kim

Sungkyunkwan University

FD-1272 The Surface Chemical Reaction on the Etched ZrO₂ Thin Films using a Adaptively Coupled Plasma Source

Jong-Chang Woo¹, Chang-Auck Choi¹, Woo-Seok Yang¹, Yoon-Soo Chun², Chang-Il Kim²

¹Electronics and Telecommunications Research Institute, ²Chung-Ang University

FD-1289 Flexible Hybrid Cell Coupled Piezoelectric and Aphotovoltaic Properties for Multi-type Energy Harvesting

Kyung-Sik Shin, Gyu Cheol Yoon, Sung Kyun Kim, Sang-Woo Kim

Sungkyunkwan University

FD-1300 Unidirectional High-power Generation from Perovskite ZnSnO₃ Nanocubes/polymer Hybrid Piezoelectric Nanogenerator

Keun Young Lee, Sang-Woo Kim

Sungkyunkwan University (SKKU)

FD-1395 Highly Stretchable Micro-patterned Piezo-pyroelectric Hybrid Nanogenerator

Ju-Hyuck Lee, Sang-Woo Kim

Sungkyunkwan University

FD-1404 High Performance Planar Type Flexible Piezoelectric Thin Film Energy Harvester

Myoung Sub Noh¹, Min Gyu Kang¹, Seok Jin Yoon¹, Chong Yun Kang^{1,2}

¹Korea Institute of Science and Technology, ²Korea University

FD-1443 Design and Fabrication of a Hollow Tray-shaped Ultrasonic Motor

SeongKyu Cheon, SeongSu Jeong, NaLee Kim, YongWoo Ha, MyongHo Kim, TaeGone Park

Changwon National University

FD-1498 Synthesis and Dielectric Properties of Copper-substituted Strontium Niobate Ceramics

Haena Yim, So Yeon Yoo, Seok-Jin Yoon, Yung-Eun Sung, Ji-Won Choi

Korea Institute of Science and Technology

- FD-1517 Genrating Characteristics of an Eye Shaped Piezoelectric Harvester**
Yong-Woo Ha¹, Seong-Su Jeong¹, Na-lee Kim¹, Seong-Kyu Cheon¹, Min-Ho Park², Tae-Gone Park¹
¹Changwon National University, ²Defense Agency for Technology and Quality
- FD-1528 High Efficient Direct Current Power Generation from Two-Dimensial ZnO Nanosheets/ Anionic Layer based Piezoelectric Energy Harvester**
Sung Kyun Kim, Kwon-Ho Kim, Keun Young Lee, Sang-Woo Kim
Sungkyunkwan University
- FD-1562 Electrical and Optical Properties of Er2O3 - Doped Potassium Sodium Niobate-Silicate Glass-ceramics**
Ploypailin Yongsiri, Kamonpan Pengpat
Chiang Mai University
- FD-1632 Direct Growth of V-doped ZnO Nanosheet on CVD Grown Graphene Nanosheet for Transparent and Flexible Nanogenerator Application**
Tae Yun Kim, Manoj Gupta, Sang-Woo Kim
Sungkyunkwan University
- FD-1633 A Study of Self-compensation Effect in High Performance Insulating and Semiconducting Piezoelectric Nanogenerators**
Dohwan Kim, Keun Young Lee, Sang-Woo Kim
Sungkyunkwan University
- FD-1638 Energy Harvesting Device with PZT Film using Sol-gel Method**
Jun-Hyuk Kwak, Ha Bich Trinh, Su A Park, Kyungjun Song, Shin Hur
Korea Institute of Machinery & Materials (KIMM)
- FD-1641 Highly Transparent and Stretchable Piezoelectric Nanogenerator using Graphene Electrode**
Seong Su Kim, Ju-Hyuck Lee, Keun Young Lee, Sang-Woo Kim
Sungkyunkwan University
- FD-1653 Design of Piezoelectric Energy Harvesting System with Protective Urethane Rubber Coating**
Daniel Song, Min Sik Woo, Chan Ho Yang, Seong Kwang Hong, Tae Hyun Sung
Hanyang University
- FD-1695 Development of High Pressure Pump for Needle-free Injection**
Young-Bog Ham¹, Eun-Joo Lee², Jung-Ho Park¹, So-Nam Yun¹
¹Korea Institute of Machinery and Materials, ²Woosong University
- FD-1715 High Performance of ZnO Piezoelectric Nanogenerator assisted by P-type Polymer**
Sung Soo Kwak, Keun Young Lee, Sang-Woo Kim
Sungkyunkwan University
- FD-1726 Piezoelectric Energy Harvester for TPMS**
Hyung-Won Kang¹, Chan-Sei Yoo¹, Seung-Ho Han¹, Hyeung-Gyu Lee¹, Chan-Hee Kang², Sun-Mi Oh², Tae-Seung Lee², Jung-Wook Park³
¹Korea Electronics Technology Institute, ²Hyundai & Kia Corporate, ³Yonsei University

FD-1878 Effect of Design Parameters on Piezoelectric Thin Film Bulk Acoustic Resonators using Finite Element Analysis

Namkyoung Choi, Ki-Bok Kim, Yong-Il Kim, Miso Kim
Korea Research Institute of Standards and Science

FD-1891 The Vibrational Characteristics of the Serial and Parallel Triple-layered Multimorph Ceramics for High Performance Piezoelectric Acoustic Actuators

Hye Jin Kim¹, Woo Seok Yang¹, Kwangsoo No²
¹*Electronics and Telecommunications Research Institute, ²KAIST*

FD-1916 Dielectric Properties of Ga2O3 Doped Barium Iron Niobate Ceramics

Kachaporn Sanjoom, Gobwute Rujijanagul
Chiangmai University

FD-1956 Preparation and Dielectric Properties of (1-x)SrFe0.5Nb0.5O3-xBaTiO3 Ceramics

Thanatep Phatungthane, Gobwute Rujijanagul
Chiangmai University

FD-2054 A Piezoelectric Nanogenerator with Ga-Doped ZnO Nanorods Synthesized by an Aqueous Solution Method

Suhyun Yoon, Sang-Woo Kim
Sungkyunkwan University

FD-2104 Synthesis of Nano BaTiO3 using Hydrate Salt Method and the Dispersion of Nano Particle

Chang Hyun Lee¹, Hyo Soon Shin¹, Dong Hun Yeo¹, Gook Hyun Ha², Sahn Nahm³
¹*Korea Institute of Ceramic Engineering and Technology, ²Korea Institute of Materials Science, ³Korea University*

FD-2107 Lead-Free Piezoelectric Ceramics Li0.03(K0.5Na0.5)0.97(Ta0.1-xSbxNb0.9)O3

Ching-Hsing Pei¹, Kai-Huang Chen², Ming-Chang Kuan², Jing-Jou Tang¹, Chien-Min Cheng¹, Chun-Hao Chang¹
¹*Southern Taiwan University of Science and Technology, ²Tung-Fang Design University*

FD-2125 (1-x)K0.5Na0.5Ta0.1Nb0.9O3+xBaTiO3 Lead-Free Piezoelectric Ceramics

Ching-Hsing Pei¹, Kai-Huang Chen², Ming-Chang Kuan², Chun-Kai Wang¹, Chien-Min Cheng¹
¹*Southern Taiwan University of Science and Technology, ²Tung-Fang Design University*

FD-2142 Lead-Free Piezoelectric Ceramics (Ba0.92Ca0.08)(Ti1-xZrx)O3

Chien-Min Cheng¹, Ming-Chang Kuan², Ching-Hsing Pei¹, Kai-Huang Chen², Chun-Kai Wang¹
¹*Southern Taiwan University of Science and Technology, ²Tung-Fang Design University*

FD-2217 Investigation of (Ba0.7Sr0.3)(Ti0.9Zr0.1)O3 Ferroelectric Thin Films

Kai-Huang Chen¹, Da-Huei Lee², Wen-Shan Chen², Yi-Pin Lin¹, Chien-Min Cheng²
¹*Tung-Fang Design University, ²Southern Taiwan University of Science and Technology*

- FD-2218 Nonvolatile Bi_{3.9}(Ti_{2.9}V_{0.1})O₁₂ Ferroelectric Random Access Memory**
Kai-Huang Chen¹, Wen-Shan Chen², Yu-Zung Chiou², Yi-Pin Lin¹, Chien-Min Cheng²
¹Tung-Fang Design University, ²Southern Taiwan University of Science and Technology
- FD-2226 The Magnetic Properties of Quantum Optical Transitions of Quasi Two Dimensional Electron Phonon Interacting System in Si and ZnS**
Su Ho Lee¹, J.H. Sug², J.T. Lee¹
¹Donga University, ²Kyoungpook National University
- FD-2288 The Study of Transparent Protect Layer for Preventing Performance Reduction in Digital X-ray Detector**
Jinseon Kim¹, Gyuseok Cho¹, Jungwook Shin¹, Yongkeun Song², Sangsik Kang³, Sanghee Nam¹
¹Inje University, ²Korea Institute of Radiological & Medical Sciences, ³International University of Korea
- FD-2337 Fabrication, Structure and Property of Epoxy-based Composites with Metal-insulator Core-shell Structure Fillers**
Yujuan Niu, Feng Xiang, Hong Wang
Xi'an Jiaotong University
- FD-2339 Micropatterning of Pb(Zr,Ti)O₃ Films by He Plasma Jet Assisted Water Lift-off Process**
Takahiro Niwa, Kazuhiro Nakanishi, Yuko Imazawa, Tatsuo Ishijima, Takeshi Kawae, Akiharu Morimoto
Kanazawa University
- FD-2423 Piezoelectric Force Sensor with Microstructured Polymer for 3-axis Force Measurements**
Wook Choi¹, Junwoo Lee¹, Jinseok Kim², Jeong Hoon Lee¹
¹Kwangwoon University, ²Korea Institute of Science and Technology

Nov. 15, 2013 (Fri.)

FD-3 (Ferroelectrics, Piezoelectrics, and Dielectrics: Processing and Applications 3) Conference Room Lobby

Chair : Dr. Miso Kim (Korea Research Institute of Standards and Science)

13:00-14:30

- FD-0251 A Square-type Rotary Ultrasonic Motor using Longitudinal Modes**
Yingxiang Liu, Junkao Liu, Weishan Chen, Peilian Feng
Harbin Institute of Technology
- FD-0256 A Cylindrical Traveling Wave Ultrasonic Motor using Bonded-type Composite Transducer**
Xiaohui Yang, Weishan Chen, Yingxiang Liu, Junkao Liu
Harbin Institute of Technology
- FD-0295 Improvement and Miniaturization of a T-Shape Linear Ultrasonic Motor with Single Foot**
Yingxiang Liu, Weishan Chen, Peilian Feng, Junkao Liu
Harbin Institute of Technology
- FD-0397 Generating Characteristics of a Modified Unimorph-type Piezoelectric Harvester**
Tae-Gone Park, Seong-Su Jeong
Changwon National University

- FD-0414 Dielectric and Leakage Current Characteristics of the (1-x)Ba(Zr,Ti)O₃-x(Ba,Ca)TiO₃ Thin Films**
Jinbao Xu
Xinjiang Technical Institute of Physics & Chemistry
- FD-0421 Relation of External Mechanical Stress to Properties in Piezoelectric Materials for Energy Harvesting**
Soon-Jong Jeong, Dong-Hwan Lim
Korea Electrotechnology Research Institute
- FD-0455 Effect of BT Template Size on Piezoelectric Properties of Textured PMN-PT Ceramics**
Juhyeong Jo¹, Sin-Woong Kim¹, Sang-Hyeon Lee², Min-Soo Kim¹, In-Sung Kim¹, Soon-Jong Jeong¹, Jaesung Song¹
¹Korea Electrotechnology Research Institute, ²Gyeongsang National University
- FD-0585 Structures and Dielectric Properties of Bi_{1.5}ZnNb_{1.5}O₇ Ceramics Doped with Fe³⁺**
Qian Zhang, Shihua Ding, Wenwu Song, Tianxiu Song, Zhuowei Zeng, Xiangqing Zhong
Xihua University
- FD-0593 Investigations on Structure and Dielectric Properties of Zr-doped Bi_{1.5}ZnNb_{1.5}O₇**
Zhuowei Zeng, Shihua Ding, Tianxiu Song, Qian Zhang, Xiangqing Zhong
Xihua University
- FD-0625 Dielectric and Piezoelectric Properties of Lead-free 0.95(Na_{0.5}K_{0.5})NbO₃-0.05(Bi_{0.5}K_{0.5})Zr_{1-x}Ti_xO₃ Ceramics**
Min Xiao, Dingquan Xiao, Zhuo Wang, Tao Huang, Jiagang Wu, Fangxu Li, Bo Wu
Sichuan University
- FD-0630 Phase Transition and Piezoelectric Properties of (K_{0.44}Na_{0.52})(Nb_{0.96}-xSbx)O₃-0.04LiSbO₃ Lead-free Ceramics**
Chao Liu, Dingquan Xiao, Tao Huang, Zhuo Wang, Bo Wu, Fangxu Li, Jianggang Wu, Jianguo Zhu
Sichuan University
- FD-0635 Effects of K/Na Ratio on the Electrical Properties of KNbO₃ Doped KNLNST Lead-free Ceramics**
Jian Ma, Dingquan Xiao
Sichuan University
- FD-0676 Electro-Optical Properties of Combined Dielectric Layers with Thin and Thick BaTiO₃ Films**
Sung Park¹, Ji Hye Kim¹, Youn Cheol Kim², Jae Chun Lee¹, Ju-Hyeon Lee³
¹Myongji University, ²Kongju National University, ³Sunmoon University
- FD-0717 SrTiO₃ Buffer Layer Enhanced Ferroelectricity of Al-doped BaTiO₃ Films for FeRAM Applications**
Ahmed I. Ali¹, li-Won Kim², V. Senthilkumar², Yong Soo Kim²
¹Helwan University, ²University of Ulsan

FD-0828 Generating Characteristics of a Honeycomb Shaped Piezoelectric Energy Harvester

Na Lee Kim, Seong Su Jeong, Seong Kyu Cheon, Yong Woo Ha, Jong Kyu Park, Tae Goe Park
Changwon National University

FD-1136 Effect of Engineered Nanomorphology by Soft-Contact-Pressing on the Enhancement of the Mobility in an Ferroelectric Organic Field-Effect Transistor for Nonvolatile Memory Application

Min-Hoi Kim¹, Jae-Hyun Kim², Jin-Hyuk Kwon², Jaehoon Park³, Jin-Hyuk Bae²
¹Seoul National University, ²Kyungpook National University, ³Hallym University

FD-1211 Dielectric Properties of CaMgSi₂O₆ Glass-Ceramics with Cr₂O₃-Fe₂O₃-TiO₂

Young Jun Eoh, Eung Soo Kim
Kyonggi University

FD-2639 Ferroelectric Properties of Aerosol-Deposited PbTiO₃ Thick Films with Different Stress Conditions

Jungkeun Lee¹, Soohwan Lee¹, Min-Geun Choi¹, Im Jun No², Young-Min Kong³, Jungho Ryu⁴,
Dae-Yong Jeong¹
¹Inha University, ²Korea Institute of Science and Technology(KIST), ³University of Ulsan, ⁴Korea Institute of Materials Science(KIMS)

Nanostructured Materials for Energy Devices (NM)

Oral Presentation

Nov. 13, 2013 (Wed.)

NM-1 (Nanostructured Materials for Energy Devices 1)

302

Chairs : Dr. Eun Dong Kim (Korea Electrotechnology Research Institute)

15:00-16:45

Prof. Aldo Di Carlo (University of Rome "Tor Vergata")

NM-4356 Metal Chalcogenide Hierarchical Nanostructures for Energy Generation

15:00-15:30 Nosang V. Myung

Invited Speech *University of California at Riverside*

NM-1451 Electric-field-assisted Alignment of CdTe Microwires for Optoelectronics and Paper Electronics

15:30-15:45

Hyunik Park, Suyeon Oh, Donhwan Kim, Jihyun Kim

Korea University

NM-2193 Determination of Substitutional Elements in Ca₃Co₄-xM_xO₉ (M = Fe, Cr, Ga) Thermoelectric Oxide using X-ray Absorption Spectroscopy Technique

15:45-16:00

Supree Pinitsoontorn¹, Natkrita Prasoesopha¹, Pinit Kidkhunthod², Pornjuk Srepusharawoot¹, Teerasak Kamwanna¹, Vittaya Amornkitbamrung¹

¹*Khon Kaen University*, ²*Synchrotron Light Research Institute (Public Organization)*

NM-2784 Two-step Synthesis to Form Vertical SrTiO₃/TiO₂ Composite Nanorods on FTO Substrates

16:00-16:15

Yung-kuan Tseng, Chi-Lon Fern, Meng-Lung Huang

National Yunlin University of Science and Technology

NM-0917 Characterization of VLS Grown Ge on Si Nanowire Diodes

16:15-16:30

Lin Chen¹, Dongwoo Suh², Wei Lu¹

¹*University of Michigan*, ²*Electronics and Telecommunications Research Institute*

NM-4505 Ionic Liquid Mediated TiO₂ Quantum Dots for Energy Applications

16:30-16:45

Varsha Khare¹, Sung Yong Kim¹, Caroline Lee², Seung-kyu Yang², Sung Hoon Ahn¹

¹*Seoul National University*, ²*Hanyang University*

Nov. 14, 2013 (Thu.)

NM-2 (Nanostructured Materials for Energy Devices 2)

302

Chairs : Prof. Nosang V. Myung (University of California at Riverside)

09:00-10:30

Prof. Mara Bruzzi (University of Florence)

NM-2555 Dye Solar Cells for Building Integration

09:00-09:30

Aldo Di Carlo

Invited Speech *University of Rome*

NM-0609 Fabrication of Dye and Si Quantum Dot Co-sensitized Solar Cells for Performance Enhancement

09:30-09:45

Hyunwoong Seo¹, Min-Kyu Son², Daiki Ichida¹, Giichiro Uchida¹, Naho Itagaki¹, Kazunori Koga¹, Masaharu Shiratani¹

¹Kyushu University, ²Pusan National University

NM-3344 Cu1-xSnxS as an Efficient Counter Electrode for Quantum Dots Sensitized Solar Cells

09:45-10:00

Kandasamy Prabakar, Dennyson Savariraj, Heeje Kim

Pusan National University

NM-4429 Structural and Electrical Properties of CdS-PVA-PEG Composite Film

10:00-10:15

Shanmugam Govindaraj, Krishnakumar Varadharajan

Periyar University

NM-0583 Photocatalytic Activity of Ion-doped ZnO Powders

10:15-10:30

Xiaojiang Yang¹, Wenwu Song¹, Xiaobing Liu¹, Yun Liu²

¹Xihua University, ²Chiba University

Nov. 14, 2013 (Thu.)

NM-3 (Nanostructured Materials for Energy Devices 3)

302

Chairs : Dr. Chong Min Koo (Korea Institute of Science and Technology)

13:00-14:45

Prof. Satoshi Wada (University of Yamanashi)

NM-3431 Low Temperature Thermally Stimulated Current (TSC) Characterization of Nanoporous TiO2 Films

13:00-13:30

Invited Speech

Riccardo Mori, Mara Bruzzi, Ennio Carnevale, Monica Scaringella, Franco Bogani

University of Florence

NM-4036 Carbon Nanotubes and Graphene as Electrodes in TCO Free Bulk Heterojunction Solar Cells

13:30-14:00

Invited Speech

Claudio Ciceroni¹, Martin Otto², Martina Dianetti¹, Giacomo Ulisse¹, Luigi Salamandra¹, Gianpaolo Susanna¹,

Thomas Brown¹, Andrea Reale¹, Aldo Di Carlo¹, Daniel Neumaier², Francesca Brunetti¹

¹University of Rome Tor Vergata, ²Gesellschaft Für Angewandte Mikro und Optoelektronik Mit Beschraenkter Haftung-AMO GmbH

NM-4366 Hierarchical Structured Titanium Oxides for Energy and Environmental Applications

14:00-14:15

Xiao Li Zhang

The University of New South Wales

NM-3534 Preparation of Titanium Oxide Nanotube on Titanium Substrate by Anodization for DSSCs Application

14:15-14:30

Ting-Wei Liaw, Ching-Loon Chen, Cheng-Yu Yang, Kuan-Ting Lin, Jerry Kung

National United University

NM-4523 Design and Fabrication of High Temperature Creep Testing Machine

14:30-14:45

Muhammad Zubair Khan¹, Adil Mahi², Aleem Ullah², Muhammad Usman Aslam¹

¹University of Science and Technology, ²Ghulam Ishaq Khan Institute of Engineering Science and Technology

NM-0712 Electroactive Nanostructure Polymers Actuators

15:00-15:30 Chong Min Koo

Invited Speech *Korea Institute of Science and Technology*

NM-2760 Microstructured Semiconductor Sensors for Medical Dosimetry Systems

15:30-15:45 Mara Bruzzi

INFN - Firenze and University of Florence

NM-1991 Preparation of Barium Titanate Nanoparticles with Necking Structure / Polymer Complex Capacitor and Their Dielectric Properties

15:45-16:00

Shuhei Tsukamoto¹, Eigo Kobayashi¹, Shintaro Ueno¹, Koichi Nakashima¹, Tohru Suzuki², Tetsuro Uchikoshi², Yoshio Sakka², Satoshi Wada¹

¹University of Yamanashi, ²National Institute for Materials Science

NM-2384 Chemically-modified Graphene Nano-platelet and Its Electrode Applications

16:00-16:15

Hee Jin Jeong, Seung Yol Jeong, Joong Tark Han, Gang-Jun Baeg, Geon-Woong Lee
Korea Electrotechnology Research Institute

NM-1438 Electrochemical Preparation of BaTiO₃ for Nano-PbO₂ Electrode: Morphological and Electrocatalytic Application Study

16:15-16:30

Muthuraman Govindan, Kannan Karunakaran, Il Shik Moon
Sunchon National University

NM-3413 Experimental Investigation on Thermomagnet Effect for a Magnetic Fluid Heat Transport Device

16:30-16:45

Wu Zhijiang, Yin Shaoyou, Xu Yansheng, Long Jianyou
Shunde Polytechnic

NM
Oral

Nov. 13, 2013 (Wed.)

NM-1 (Nanostructured Materials for Energy Devices 1)

Conference Room Lobby

Chair : Prof. Hyunwoong Seo (Kyushu University)

16:30-18:00

NM-2461 Flexible Energy Harvesting Microchip using Streaming Potential of Nano-pored Three-dimensional PDMS

Sung Il Han, Jeong Hoon Lee

Kwangwoon University

NM-2509 Thermodynamic Process Optimization of SiC Nanofiber Synthesis from Exfoliated Graphite and Amorphous Silica

Seong-Min Jeong¹, Kyoung-Jin Lee², Hae-Jin Hwang², Won-Seon Seo¹
¹Korea Institute of Ceramic Engineering and Technology, ²Inha University

NM-2582 Electrosorption and Electrochemical Properties of Natural Carbon Electrode for Capacitive Deionization

Jae-Wook Lee¹, Jae-Hyeok Lee¹, Tae-Young Kim², Kyung-Hee Park²
¹Chosun University, ²Chonnam National University

NM-2583 Dye-sensitized Solar Cells using Multi-functionalized Plant Oil Binder

Kyung Hee Park¹, Tae-Young Kim², Hyun-Seok Ko², Chang Kook Hong², Jae Wook Lee¹
¹Chosun University, ²Chonnam National University

NM-2598 Synthesis and Characterization of Ag Nanoparticles Adsorbed in Laponite

Seung-Kyu Yang, Youhyuk Kim

Dankook University

NM-2691 Adsorption Equilibrium and Kinetics of Natural Dyes on Photoelectrode for Dye-Sensitized Solar Cells

Tae Young Kim¹, Nam Jin Jeon¹, Shin Han¹, Kyung Hee Park¹, Jae Wook Lee², Byoung Jun Min¹, Sung Yong Cho¹
¹Chonnam National University, ²Chosun University

NM-2732 Current Status of Hydrogen Separation through Membrane Technology in Pre-combustion Capture Process

Jung Hoon Park

Dongguk University

NM-2733 Electrical and Mechanical Properties of Graphene-Coated Metal Bipolar Plates for Polymer Electrolyte Membrane Fuel Cell

Donghyun Kim¹, Jungsoo Kim¹, Gwoon Choi¹, Minhyon Jeon², Dae-Geun Nam¹
¹Korea Institute of Industrial Technology, ²Inje University

NM-2754 Preparation and Oxygen Permeation Properties of BaCrO_x Coated Ba_{0.5}Sr_{0.5}Co_{0.8}Fe_{0.2}O_{3-δ} Tube Type Membrane

Myung Jae Seo¹, Jung Hoon Park²

¹Korea Institute of Energy Research, ²Dongguk University

NM-2770 Fabrication and Characterization of Reduced Graphene Oxide Modified Nickel Hydroxide Electrode for Energy Storage Applications

Md. FarukHossain, Junli Yin, Jae Y. Park

Kwangwoon University

NM-2785 Control of Growth Density of Hydrothermal Method for Synthesizing Zinc Oxide Nanowires

Yung-kuan Tseng, Shun-lung Su, Sheng-kai Li

National Yunlin University of Science and Technology

NM-2830 ZnO Nanorods Grown on Cellulose Film and Its Electro-mechanical Behavior

Seong Cheol Mun, Hyun-U Ko, Jaehwan Kim

Inha University

NM-2984 Fabrication and Characterization of Silica Nanotubes using Thermal Treatment

Ji Eun Lee, Byeong Geun Kim, Seong-Min Jeong, Won-Seon Seo

Korea Institute of Ceramic Engineering and Technology

NM-3074 ZnO/ZnSe Core/Shell Nanostructures applying for High Efficient ZnO-based Dye-sensitized Solar Cells

Woohyung Lee, Dong-Cheon Kang, Su-Wung Baek, Kwang-Il Choi, Cheol Hyun Lim, Suk Ho Lee

Southwestern Research Institute of Green Energy Technology

NM-3116 First Principles Computational Studies of Catalytic Activity and Electrochemical Stability of Pt-Co Alloy Nanoparticles

DohyunKwak, Seunghyo Noh, Byungchan Han

DGIST

NM-3185 Fabrication of ZnO/Al₂O₃ Multilayer Nanotubes applying for Dye-sensitized Solar Cells

Kwang-Il Choi, Su Wung Baek, Dong Cheon Kang, Woo Hyung Lee, Cheol Hyun Lim, Suk Ho Lee

Southwestern Research Institute of Green Energy

NM-3213 Three-Dimensional Hierarchical Hematite Architecture with Self-Doped Sn⁴⁺ For Photoelectrochemical Water Splitting

Sangbaek Park¹, Hae Jin Kim¹, Chan Woo Lee¹, Hee Jo Song¹, Sang Hyeon Kim¹, Seong Sik Shin¹, Dong-Wan Kim², Kug Sun Hong¹

¹Seoul National University, ²Ajou University

NM-3254 Fabrication of Nano-sized Transparent Conducting Oxide Patterns by Nano-imprint Lithography and Lift-off Process on Glass Substrates

Su Yeon Lee, Hee Chul Lee

Korea Polytechnic University

NM-3376 Application of Nano-sized Materials for Highly Improved Conductivities of Solid Polymer Electrolytes

Eun-Bee Kim, Kwang-Min Kim, Tae-Seop Han, Hee-Woo Rhee

Sogang University

NM-3541 Various Energy Acceptors and Donors in the Förster Resonance Energy Transfer System for the Quasi-solid State Dye-sensitized Solar Cell

Sok Kyun Choi¹, Byeong Cheol Jeon¹, Young Ji Yoon¹, Do Kyung Lee², Jae Hong Kim¹

¹*Yeungnam University*, ²*Catholic University of Daegu*

NM-3545 Synthesis and Photovoltaic Performance of Multi-Functional Porphyrins for Dye-sensitized Solar Cells

Young Rock Kim¹, Chi Hwan Lee¹, Nguyen Thi Hai¹, Dong Gyun Son¹, Yoon Soo Han², Jae Hong Kim¹

¹*Yeungnam University*, ²*Catholic University of Daegu*

NM-3552 Novel Organic Photosensitizer System for High Voltage-offering Tandem pn-Dye-sensitized Solar Cells

Chi Hwan Lee, Byeong Cheol Jeon, Ji Hye Kim, Kwang Soon Ahn, Jae Hong Kim

Yeungnam University

NM-3555 Optimization of Organic Sensitizing System for Dye-sensitized Solar Cells composed of ZnO Photo Electrode

Young Rock Kim¹, Ji Young Park¹, Joo Hei Jung¹, Do Kyung Lee², Jae Hong Kim¹

¹*Yeungnam University*, ²*Catholic University of Daegu*

NM-3559 Highly Efficient Organic Photosensitizers for p-type Dye-sensitized Solar Cells

Chi Hwan Lee, Sok Kyun Choi, Sang Mok Kim, Kwang Soon Ahn, Jae Hong Kim

Yeungnam University

NM-3561 Enhancement of Photovoltaic Performance in Dye-sensitized Solar Cells Containing Novel Julolidine Chromophores

Jae Hong Kim¹, Le Quoc Bao¹, Ji Young Park¹, Chi Hwan Lee¹, Jae-Hong Kim¹, Yoon Soo Han²

¹*Yeungnam University*, ²*Catholic University of Daegu*

NM-3628 Self-assembled Growth of III-V Nanowire Array on Si for Low-cost Optical Sensors

Myung Sang Kim¹, Ari Lee¹, Hyun Wook Shin², Myung-Soo Han¹, Hyo Jin Kim¹, Won Geun Jang¹, Sang Jun Lee³, Taek-Soo Ji⁴, Jae Cheol Shin¹

¹*Korea Photonics Technology Institute*, ²*Kyung Hee University*, ³*Korea Reserch Institute of Standards and Science*, ⁴*Chonnam National University*

NM-3635 Physical and Chemical Treatment to Improve the Purity of the Silica

Na-Ri Yeom, Young-Hyun Lee

Yeongwol Eco-Materials Industry Foundation

NM-3685 Synthesis and Characterization of Metal-deposited Composite Nanowires for Solar Cell via Electrospinning and Electroless Deposition

Seong-bong Yim, Sung Mook Choi, Joo-Yul Lee

Korea Institute of Materials Science(KIMS)

NM-3757 Synthesis of Molybdenum Disulfide Nano Sheets using Sonication Method

Thang Nguyen Phan, Kyoung Soon Choi, Soo Young Kim
Chung-Ang University

NM-3860 Lead Free K₂FeO₄ Nanowires based Flexible Nanogenerators

Mi-Ri Joung¹, Haibo Xu¹, Jin-Seong Kim¹, In-Tae Seo¹, Sahn Nahm¹, Chong-Yun Kang², Seok-Jin Yoon²
¹*Korea University*, ²*Korea Institute of Science and Technology*

NM-4114 Equal Channel Angular Pressing of Aluminium Alloys

Chaiyasit Banjongprasert, Chonlada Donrong, Torranin Chairuangsi
Chiang Mai University

NM-4144 Anomalous of Excitation Power Dependent Photoluminescence of InGaAsN/GaAs T-shaped Quantum Wires

Pawinee Klangtakai¹, Sakuntam Sanorpim², Per-Olof Holtz³, Fredrik Karlsson³, Kentaro Onabe⁴
¹*Khon Kaen University*, ²*Chulalongkorn University*, ³*Linköping University*, ⁴*The University of Tokyo*

NM-4225 Indium Tin Oxide Thin Films with Graded Refractive Indices as Anti-reflector of Silicon-based Solar Cells

Gyujin Oh, Eun Kyu Kim
Hanyang University

NM-4253 Modification of Dye-sensitized Solar Cell Working Electrode using TiO₂ Nanoparticle/N-doped TiO₂ Nanofiber Composites

Sineenart Suphankij, Thanit Tangcharoen, Athapon Simpraditpan, Wanichaya Mekprasart, Wisanu Pecharapa
King Mongkut's Institute of Technology Ladkrabang

Nov. 14, 2013 (Thu.)

NM-2 (Nanostructured Materials for Energy Devices 2)

Conference Room Lobby

Chair : Dr. Hee Jin Jeong (Korea Electrotechnology Research Institute)

16:30-18:00

NM-0332 Rattler Filling Effect on Thermoelectric Properties of an In_{0.3-x}Bi_xCo₄Sb₁₂ Skutterudite System

So-Young Kim^{1,2}, Soon-Mok Choi³, Won-Seon Seo¹, Young-Soo Lim¹, Hyung Koun Cho², Ji-Ho Kim⁴
¹*Korea Institute of Ceramic Engineering and Technology (KICET)*, ²*Sungkyunkwan University*, ³*Korea University of Technology and Education*, ⁴*Korea National University of Transportation*

NM-0355 Effect of Annealing on the PL and Photocatalytic Properties of Solution Combusted ZnO Nanopowders

Sung Park¹, Byoung-Ho Yoo¹, Ji-Hye Kim¹, Youn Cheol Kim², Jae Chun Lee¹, Ju Hyeon Lee³
¹*Myongji University*, ²*Kongju National University*, ³*Sunmoon University*

NM-0368 Switching Characteristics of Colloidal Photonic Crystal Display

Yong-Hae Kim
ETRI

NM
Poster

NM-0461 Hydrothermal Preparation, H₂ Evolution from Water-Splitting Reaction and Dye-Sensitized Solar Cells of Nanotubes Constructed from Low-Cost White Pigment TiO₂

Sorapong Pavasupree¹, Thanakorn Wirunmongkol¹, Nattaporn Tonanon², Surawut Chuangchote³, Athapon Simpraditpan⁴, Wisanu Pecharapa⁴

¹Rajamangala University of Technology Thanyaburi, ²Chulalongkorn University, ³King Mongkut's University of Technology Thonburi, ⁴King Mongkut's Institute of Technology Ladkrabang

NM-0464 Characterization of the Graphite Oxides Reduced by Thermal and/or Chemical Treatments

Seong Eun Shim¹, Dohoon Kim¹, Jungsoo Kim², Weontae Oh¹

¹Dong-Eui University, ²Korea Institute of Industrial Technology

NM-0466 Hydrothermal Synthesis of Anatase Nanotubes Derived from a Natural Leucosene Mineral

Deaw Aphairaj¹, Sorapong Pavasupree², Thanakorn Wirunmongkol², Sutham Niyomwas³, Pichet Limsuwan¹

¹King Mongkut's University of Technology Thonburi, ²Rajamangala University of Technology Thanyaburi, ³Prince of Songkla University

NM-0482 Thermal Properties of Polyimide-graphene Composite Films

Seongeun Shim¹, Dohoon Kim¹, Seongyeob Park¹, Weontae Oh¹, Jungsoo Kim²

¹Donguei University, ²Korea Institute of Industrial Technology

NM-0539 Superhydrophobicity of Tree-like Fractal Morphologies from Silica Nanoparticles

Dae Ho Lee, Hojung Kim, Se Won Han, Dong Pil Kang

Korea Electrotechnology Research Institute

NM-0714 Superhydrophobic and Icephobic Properties of OTS-F Coating Al with Etching Conditions

Se Won Han, Jin Jeong, Dae Ho Lee, Dong Phil Kang

KERI (Korea Electrotechnology Research Institute)

NM-0820 Steam Injection to Liquid Si to Synthesize SiO_x Nanoparticles

Bo Yun Jang, Joon Soo Kim, Jin Seok Lee

Korea Institute of Energy Research

NM-0879 Enhanced Thermoelectric Properties of Sb-doped MnTe Compounds

Bongseo Kim, Inhye Kim, Bok-ki Min, Minwook Oh, Sudong Park, Heewoong Lee

Korea Electrotechnology Research Institute

NM-0933 Analysis on the Characterization of CdS and Dye Co-sensitized Solar Cell with TiO₂ Sol-gel Solution

Min-Kyu Son¹, Hyunwoong Seo², Soo-Kyoung Kim¹, Songyi Park¹, Myeong-Soo Jeong¹, Hee-Je Kim¹

¹Pusan National University, ²Kyushu University

NM-1048 Fabrication and Characterization of a Composite Structure with Hydrothermally Grown ZnO-nanowires and Spray-deposited PVDF-coat for Energy Harvesting Device Application

Young-Taek Lim¹, Shizuyasu Ochiai², Paik-Kyun Shin¹

¹Inha University, ²Aichi Institute of Technology

NM-1349 Effects of Ga Doping on Growth Behavior and Electrical Property of ZnO Nanorods Synthesized by Hydrothermal Method

Geun Chul Park, Sang Hyub Lee, Seung Muk Lee, Jun Hyuk Choi, Soo Min Hwang, Tae Woong Kim,
Jun Hyung Lim, Jinho Joo
Sungkyunkwan University

NM-1381 Improved Characteristics of Dye-sensitized Solar Cell with Anti-reflection Layer Fabricated by Nano-imprint Lithography

Ho-Gyeong Yun¹, Kyung-Won Lee¹, Sung-Hun Hong¹, Kuk-Hee Han¹, In-Hwan Lee²
¹IT Materials & Components Laboratory, ²Chonbuk National University

NM-1425 Effects of Dual Doping on Thermoelectric Properties of β -Zn₄Sb₃

Kwang Ho Bae^{1,2}, Minseok Song¹, Young Soo Lim¹, Won-Seon Seo¹, Soon-Mok Choi³, Kyung Wook Jang⁴,
Hae-Jin Hwang²
*¹Korea Institute of Ceramic Engineering and Technology, ²Inha University, ³Korea University of
Technology and Education, ⁴Hanseo University*

NM-1430 Thermoelectric Properties of Hot-pressed In_{0.2}Yb_{0.1}Co₄Sb₁₂

So Young Kim^{1,2}, Minseok Song¹, Chang-Hyun Lim¹, Kwang Ho Bae¹, Jang Yeul Tak¹, Hyeon Jin Yu¹,
Young Soo Lim¹, Won-seon Seo¹, Soon-Mok Choi³, Hyung Koun Cho²
*¹Korea Institute of Ceramic Engineering & Technology, ²Sungkyunkwan University, ³Korea University
of Technology and Education*

NM-1512 High-temperature Charge Transport and Thermoelectric Properties of Perovskite CaV_{1+x}O₃

Jang Yeul Tak^{1,2}, Young Soo Lim¹, Won-Seon Seo¹, Soon-Mok Choi³, Hyung Koun Cho²
*¹Korea Institute of Ceramic Engineering & Technology, ²Sungkyunkwan University, ³Korea University
of Technology and Education*

NM-1570 Fabrication of Piezoelectric ZnO Nanogenerator

Balasubramaniam Saravanakumar, So Yoon Shin, Sang Jae Kim
Jeju National University

NM-1610 Synthesis of C-LFP Powders by Sol-Gel and Microwave Assist and Change Microwave Assist Position Process

Chan Park, Dongsik Bae
Changwon National University

NM-1654 Novel ITO/AgOx/ITO Nanoarray Electrode for Organic Solar Cells

Wei Wang, Gun-Hwan Lee, Jungheum Yun
Korea Institute of Materials Science

NM-1830 A Phase-controlled Synthesis of Nickel Hydroxide Nanoparticles: Characterization and Their Application

Seung-Youl Kang, Seong Deok Ahn
Electronics and Telecommunications Research Institute

- NM-2008 Annealing Effects on Thermoelectric Properties of In-filled CoSb₃**
 Chang-Hyun Lim^{1,2}, Minseok Song¹, So Young Kim¹, Kwang Ho Bae¹, Jang Yeul Tak¹, Hyeon Jin Yu¹,
 Young Soo Lim¹, Won-Seon Seo¹, Cheol-Hee Park³, Soon-Mok Choi⁴, Hyung-Ho Park²
¹Korea Institute of Ceramic Engineering and Technology, ²Yonsei University, ³LG Chem / Research Park, ⁴Korea University of Technology and Education
- NM-2257 Nano Porous Cellulose Aerogel and Polyurethane Membranes / Composite Membranes for Control of Drug Delivery Characteristics**
 Eunbyul Go^{1,2}, Changyeoul Kim¹, Sangil Hyun¹, Donhaeng Lee³
¹KICET, ²Inha University, ³Inha University Hospital
- NM-2310 Preparation of Pt Nanopatterns on Self-assembled PMMA-b-PHEMA Thin Film using a Drying Process**
 Jae-Young Lee, Hong-Ki Lee
Woosuk University
- NM-2327 Efficient Electron Generation Module for X-ray Device using the CNT Cold Cathode Emitter**
 K. K. Im¹, M. W. Kim¹, G. J. Nam¹, J. U. Kim²
¹Nexview^{TX}, ²Korea Electrotechnology Research Institute (KERI)
- NM-2431 Quantum Dot Sensitized Solar Cell with Increased Efficiency by Incorporating CuS Counter Electrode and Polysulphide Electrolyte**
 Dennyson Savariraj, Prabakar Kandasamy, Hee Je Kim
Pusan National University
- NM-2852 Low Temperature Performances of Lithium Secondary Batteries using Cu-SPB Conductive Material with Graphite Anode**
 Adnan Yaqub¹, You-Jin Lee², Min Ji Hwang², Chil-Hoon Doh²
¹KERI - University of Science & Technology (UST), ²Korea Electrotechnology Research Institute
- NM-2974 Air Stable Inorganic-organic Heterojunction Solar Cells with PbS CQD Treated by Halide Material**
 Gabseok Seo¹, Tae Kyu Ahn¹, Sang Il Seok^{1,2}
¹Sungkyunkwan University, ²Korea Research Institute of Chemical Technology
- NM-3415 Fabrication and Evaluation of Magnetite Nanoparticles and Their Composites for Localized Hyperthermia Application**
 Changyeoul Kim¹, Eunhee Lee^{1,2}
¹KICET, ²Hanyang University

Advanced LED and Lighting Technology (LT)

Oral Presentation

Nov. 13, 2013 (Wed.)

LT-1 (Advanced LED and Lighting Technology 1)

303

Chairs : Prof. Ja-Soon Jang (LIFTRC & Yeungnam University)

09:00-10:30

Prof. Shigefusa F. Chichibu (Tohoku University)

LT-0934 Unraveling Mystery of Efficiency Droop in III-V LEDs

09:00-09:30 E. Fred Schubert¹, Jaehee Cho²

Invited Speech ¹Rensselaer Polytechnic Institute (RPI), ²Chonbuk National University

LT-3525 Managing Piezoelectric Fields to Enhance Optical Emission Efficiency in Blue and Green InGaN based LEDs

09:30-10:00

Invited Speech Max Migliorato
University of Manchester

LT-0619 High-power and High-efficiency Blue Light-emitting Diode with >4-W Output Power in a Single-chip Package

10:10-10:15

Tak Jeong¹, Jong-Hyeob Baek¹, Jun-Seok Ha², Han-Youl Ryu³

¹Korean Photonics Technology Institute, ²Chonnam National University, ³Inha University

LT-3353 Enhanced Light Extraction Efficiency of Deep-Ultraviolet Light-Emitting Diodes by Al-Coated Selective-Area-Grown GaN Stripes

10:15-10:30

Dong Yeong Kim, Jong Won Lee, Seungjae Oh, Sunyong Hwang, Junhyuk Park, Jong Kyu Kim
Pohang University of Science and Technology

Nov. 13, 2013 (Wed.)

LT-2 (Advanced LED and Lighting Technology 2)

303

Chairs : Prof. Max Migliorato (University of Manchester)

13:00-14:30

Prof. Anthony H.W. Choi (University of Hong Kong)

LT-3466 Growth of InN and Related Alloys using DERI Method toward Fabrication of Optoelectronics Devices

13:00-13:30

Invited Speech Tomohiro Yamaguchi¹, Ke Wang², Tohru Honda¹, Euijoon Yoon³, Tsutomu Araki², Yasushi Nanishi^{2,3}
¹Kogakuin University, ²Ritsumeikan University, ³Seoul National University

LT-3356 Spatio-time-resolved Cathodoluminescence Studies on Group-III-nitride Semiconductors

13:30-14:00

Invited Speech Shigefusa Chichibu, Youichi Ishikawa, Masanori Tashiro, Kouji Hazu, Kentaro Furusawa

Tohoku University

LT-3188 Analysis on Thermal and Optical Performance of Silicon-based LED Platform

14:00-14:15

Zorigt Chuluunbaatar, Sung-Jin Cho, Cong Wang, Nam-Young Kim
Kwangwoon University

LT
Oral

055

LT-2071 Characteristics of InGaN-based Long-wavelength (11-22) Semipolar LED using Combined Defect Reduction Techniques

14:15-14:30

Jongjin Jang, Geunho Yoo, Kyuseung Lee, Daehong Min, Seunghwan Moon, Jaehwan Kim, Sooryong Chae, Okhyun Nam
Korea Polytechnic University

Nov. 13, 2013 (Wed.)

LT-3 (Advanced LED and Lighting Technology 3)

303

Chairs : Prof. Tomohiro Yamaguchi (Kogakuin University)
Dr. Jaehee Cho (Chonbuk National University)

15:00-16:30

LT-3569 III-Nitride Light-emitting Diodes Incorporating Nanosphere-patterned Nanophotonic Structures

15:00-15:30

Invited Speech

Anthony H.W. Choi
The University of Hong Kong

LT
Oral

LT-3582 Growth of Wurtzite Nitride and Oxide Films by Metalorganic Chemical Vapor Deposition for the Device Application

15:30-16:00

Invited Speech

Masatomo Sumiya, Liwen Sang, Yoshitomo Harada
National Institute for Materials Science

LT-3159 Nanowire-Based Hierarchical Morphologies for Enhancement of Light Extraction in InGaN Blue Light-Emitting Diodes

16:00-16:15

Byeong Uk Ye¹, Beom Jun Kim², Hu Young Jeong¹, Jin-Hoe Hur¹, Jong-Lam Lee², Jeong Min Baik¹
¹Ulsan National Institute of Science and Technology (UNIST), ²Pohang University of Science and Technology (POSTECH)

LT-4239 High-performance GaN-based Light-emitting Diodes using ZnO Transparent Conducting Electrode and PdAl-based p-bonding Electrodes

16:15-16:30

Sei-Min Kim¹, Seon-Ho Jang¹, Seok-Heon Lee², Ja-Soon Jang^{1,3}
¹Yeungnam University, ²Quantum Device, ³LIFTRC

Nov. 14, 2013 (Thu.)

LT-4 (Advanced LED and Lighting Technology 4)

303

Chairs : Dr. Masatomo Sumiya (National Institute for Materials Science)
Dr. Meeryoung Cho (Korea Institute of Lighting Technology)

09:00-10:15

LT-0287 An Engineering Method to Estimate Junction Temperatures of Light Emitting Diodes in Multiple LEDs Application

09:00-09:30

Invited Speech

Xiaobing Luo, Xing Fu
Huazhong University of Science and Technology

LT-3495 Improved White Light Emitting Diode Characteristics by Coating GdAG:Ce Phosphor

09:30-09:45

Charusheela Joshi¹, Pooja Yadav¹, S.V. Moharil²
¹Shri Ramdeobaba College of Engineering and Management, ²RTM Nagpur University

LT-3312 Material Classification using Hyperspectral Images (HSI) and LED Light

09:45-10:00 Min-Sheob Shim, Sungho Kim, Jasoon Jang
Yeungnam University

LT-0874 Study on Optical Performances of Nonuniform Phosphor Distribution in Phosphor Dip-transfer Coating for Phosphor-converted White LEDs

10:00-10:15 Huai Zheng, Xiaobing Luo
Huazhong University of Science and Technology

Nov. 14, 2013 (Thu.)

LT-5 (Advanced LED and Lighting Technology 5)

303

Chair : Prof. Xiaobing Luo (Huazhong University of Science & Technology)

13:00-14:30

LT-3735 Review on the Application of LED Fishing Lights

13:00-13:30 Heui-Chun An¹, Sam-Kwang Cho¹, Ja-Soon Jang²
Invited Speech ¹National Fisheries Research & Development Institute, ²LIFTRC & Yeungnam University

LT-3053 Integrated Optical and Emotion Assessment Techniques for User Centered Guidelines Development in LED System Lighting

13:30-14:00 Meeryoung Cho
Invited Speech *Korea Institute of Lighting Technology*

LT-2907 Performance of CSK Scheme for V₂ Visible Light Communication

14:00-14:15 Hyeon-Cheol Kim, Ja-Soon Jang, Sung-Yoon Jung
Yeungnam University and LED-IT Fusion Technology Research Center

LT-2175 Comparative Chemical Wet Etching Studies of Semipolar (11-22) Undoped and Si-doped GaN Grown on m-sapphire

14:15-14:30 Hye-Rin Yi, Ki-Ryoung Song, Sang-Hyun Han, Jae-Hwan Lee, Sung-Nam Lee
Korea Polytechnic University

Nov. 14, 2013 (Thu.)

LT-6 (Advanced LED and Lighting Technology 6)

303

Chair : Prof. Ja-Soon Jang (LIFTRC & Yeungnam University)

15:00-16:30

LT-1739 IT Convergence of OLED/LED Lighting System for Color Therapy

15:00-15:15 Woo Je Lee, Hyun Sung Yu, Sang Jeon Hong
Myongji University

LT-2885 Optimal Signal Amplitude of OFDM Systems in Dimmable Visible Light Communications

15:15-15:30 Kyungsu Yun¹, Changho Lee², Kang-Il Ahn³, Rimhwan Lee¹, Ja-Soon Jang¹, Jae Kyun Kwon¹
¹Yeungnam University, ²Samsung Electronics, ³Mando Global R&D Center

LT-1238 Luminescence Properties and Morphology of Y3Al5O12:Ce3+ Phosphors using Different Alumina as Starting Materials via Molten Salt Synthesis

15:30-15:45

Xiang Wang, Jin-hong Li, Wei-min Guan, Ping-lu Shi, Hai-kun Liu
China University of Geosciences

LT-1260 Luminescence Properties of Eu3+-doped MgAl2O4 Spinel Synthesized from Micro-emulsion at Low Temperature

15:45-16:00

Wei-min Guan, Jin-hong Li, Xiang Wang
China University of Geosciences

LT-3284 High Current-density Light-emission Study in Planar Organic Light-emitting Electrochemical Cell

16:00-16:15

Jinpeng Li¹, Tomo Sakanoue², Shimpei Ono³, Taishi Takenobu¹
¹Waseda University, ²Yamagata University, ³Central Research Institute of Electric Power Industry

LT-2172 Growth and Characterization of Polar (0001) and Nonpolar (10-10) ZnO Nano-rods Grown on Sapphire Substrates by using Hydrothermal Synthesis

16:15-16:30

Hyo-Soo Son¹, Nak-Jung Choi¹, Il-Kyu Park², Sung-Nam Lee¹
¹Korea Polytechnic University, ²Yeungnam University

Nov. 13, 2013 (Wed.)

LT-1 (Advanced LED and Lighting Technology 1)

Conference Room Lobby

Chair : Prof. Hyunsoo Kim (Chonbuk National University)

16:30-18:00

LT-1686 Study of Thermal Properties of Borosilicate Glass-ceramics of Various Al₂O₃/ZnO Ratios for LED Packaging

Jimin Kang, Seunggu Kang
Kyonggi University

LT-1731 Effect of Microlens Array Fill Factor on the Outcoupling Efficiency of the Organic Light-emitting Diodes

Deok Hyeon Hwang¹, Ow Tae Kwon¹, Won Jae Lee², Min Jong Song³, Tae Wan Kim¹
¹Hongik University, ²Gachon University, ³Kwangju Health College

LT-1735 Percolative Alignment Effect of Diamond Particle on Thermal Interface Material for LED

Bong-Man Choi, Yong-Beom Jeong, Hea-Dong Yim, Beom-Hoan O
Inha University

LT-1779 The Growth of Semi-polar (11-22) GaN Layer Grown by HVPE with the Control of Gas Flows on the Semi-polar (11-22) GaN Template

Ju-Hyung Ha¹, Mi-Seon Park¹, Won-Jae Lee¹, Byoung-Chul Shin¹, Young-Jun Choi², Hae-Yong Lee², Sung-Min Hwang³
¹Dong-Eui University, ²LumiGNtech Co., Ltd., ³Soft-Epi Inc.

LT-1784 Effect of the Surface Treatment at the Glass Frit on the Crystallization Behavior of Cordierite Glass-ceramics for LED Packaging

Yuna Lee, Seunggu Kang
Kyonggi University

LT-1786 Effects of Group V/III Ratio and GaN Inter-layer on the Crystal Quality of InN Grown by Hydride Vapor Phase Epitaxy Method

Juan Wang¹, Ju-Hyung Ha¹, Won-Jae Lee¹, Young-Jun Choi², Hae-Yong Lee², Jung-Gon Kim³
¹Dong-Eui University, ²LumiGNtech Co., Ltd., ³Kyoto Institute of Technology

LT-1992 A Development of Microlens Arrays for Outcoupling of OLEDs

Hyun Soo Kim, Il Yeong Kim, Dae Seon Park, Chang Kyo Kim
Soonchunhyang University

LT-1994 Effect of Crystallization on Thermal Properties of CaO-MgO-SiO₂ based Glass Ceramics for LTCC Application

Jihwan Won, Seunggu Kang
Kyonggi University

- LT-2051 Growth of High Quality AlN Layers using High-temperature MOCVD**
Kyungjae Lee¹, Jinwan Kim¹, Daeyong Eom¹, Minhwan Jeon¹, Jonghyun Yoo², Sain Hong², Okhyun Nam¹
¹Korea Polytechnic University, ²Top-Engineering Co, Ltd.
- LT-2151 Comparative Studies with Nonpolar (1-100) ZnO Films Grown on m-plane Sapphire Substrates using Atomic Layer Deposition and RF Magnetron Sputter**
Nak-Jung Choi, Hyo-Soo Son, Hyun-Jun Choi, Kyoung-Kook Kim, Sung-Nam Lee
Korea Polytechnic University
- LT-2176 Improved Efficiency Droop of GaN-based Light Emitting Diodes by using the Multi-chip Array Structure**
Gyu-Jae Jeong, Hodol Yoo, Kyoung-Kook Kim, Sung-Nam Lee
Korea Polytechnic University
- LT-2201 Design and Growth of Deep-Ultraviolet Light Emitting Diodes with Al Composition Graded p-AlGaIn Structure**
Jinwan Kim, Kyungjae Lee, Minhwan Jeon, Daeyong Eom, Okhyun Nam
Korea Polytechnic University
- LT-2435 Inverted Quantum Dot Light Emitting Diode with Inorganic Charge Transport Layers**
Yu Jin Park^{1,2}, Jiwan Kim², Chul Jong Han², Jeongno Lee², Jeong In Han¹, Min Suk Oh²
¹Dongguk University, ²Korea Electronics Technology Institute (KETI)
- LT-2533 Growth of (11-22) Semipolar Long-wavelength InGaIn/GaN LED Structures using Strain Relief Super-lattice Layers**
Seunghwan Moon, Jongjin Jang, Daehong Min, Jaehwan Kim, Sooryong Chae, Okhyun Nam
Korea Polytechnic University
- LT-2679 Using the Un-doped GaN Current Blocking Layer to Improve the Efficiency of the Light Output of the Light-emitting Diode**
Yeong Hun Jang, Su Chang Ahn
Korea Photonics Technology Institute (KOPTI)
- LT-2713 Photoluminescence Properties of Non-rare Earth Ba(Ca,Mg)-Al(Ge,Fe)-Si-O-N:Ti⁴⁺, Mn²⁺ LED Phosphors**
Ok Geun Jeong¹, Jong Cheon Park¹, Jeong Ho Ryu², Hyun Cho¹
¹Pusan National University, ²Korea National University of Transportation
- LT-2715 Analysis of Twice Line Frequency Light Flicker of a LED Lamp Driven by Single-Stage PFC Circuit**
Yi Li, Gyung-Seok Han, Hee-Jun Kim
Hanyang University
- LT-2731 Design of a Single-Stage Single-Switch PFC Circuit with Small Output Current Ripple for a LED Lamp**
Yi Li, Gyung-Seok Han, Hee-Jun Kim
Hanyang University

- LT-2773 An Experimental and Numerical Analysis Study on Humidity Control Module in LED Lighting**
Chul-sook Kim¹, Sang-joon Oh¹, Ju-han Lee¹, Tae-beom Seo²
¹Graduate School of Inha University, ²Inha University
- LT-2825 Ammothermal Growth of Bulk GaN Crystal using NaNH₂ as Basic Mineralizer**
Jang Bo Shim, Seok Jong Jeong, Young Kuk Lee
Korea Research Institute of Chemical Technology
- LT-2900 Effects of (Al,Ga)Ox/GaN Interface States on GaN-based Schottky-type Light-emitting Diodes**
Shuhei Fujioka¹, Ryosuke Amiya¹, Takeyoshi Onuma², Tomohiro Yamaguchi¹, Tohru Honda¹
¹Kogakuin University, ²Tokyo National College of Technology
- LT-3017 Impact of Native Surface Oxide on GaN Layers for their Surface Band Bending**
Ryosuke Amiya, Yohei Sugiura, Daiki Tajimi, Tomohiro Yamaguchi, Tohru Honda
Kogakuin University
- LT-3131 Efficient LED Lighting for Elderly People**
Jiyea Shin, Chan-Su Lee
Yeungnam University
- LT-3304 Improvement of Heat Conduction of Die Attach Layer for High Power LED Package**
Hae-Dong Yim, Dong-Jin Lee, Yang-Gyeom Kim, Bong-Man Choi, Young-Hoon Kim, Yong-Beom Jeong, Beom-Hoan O
Inha University
- LT-3368 Carrier Concentration Effects on Electrical Characteristics of GaN based Schottky Diodes**
Jihwan Kim, Dae-Keun Shin, M. Siva Pratap Reddy, Kil-ho Jung, Sang-Jun Lee, Ja-Soon Jang
LED-IT Fusion Technology Reseach Center(LIFTRC)
- LT-3381 Plasmon-enhanced Quantum Efficiency of Phosphor near Silver Nanoparticles**
Yang-Gyeom Kim, Dong-Jin Lee, Hae-Dong Yim, Yong-Beom Jeong, Young-Hoon Kim, Bong-Man Choi, Jae-Hyeung Park, Se-Geun Park, Seung-Gol Lee, Beom-Hoan O
Inha University
- LT-3517 Evolving Light-Emitting Diodes by Genetic Algorithm-based Optimization**
Dong Yeong Kim¹, Junhyuk Park¹, Sunyong Hwang¹, Han Youl Ryu², Jong Kyu Kim¹
¹Pohang University of Science and Technology, ²Inha Univeristy
- LT-3531 Strong Correlation between Capacitance and Breakdown Voltage of GaInN/GaN Light-emitting Diodes**
Jaehee Cho¹, E. Fred Schubert², Joong Kon Son³, Cheolsoo Sone³, Dong Yeong Kim⁴, Jong Kyu Kim⁴
¹Chonbuk National University, ²Rensselaer Polytechnic Institute, ³Samsung Electronics, ⁴Pohang University of Science and Technology
- LT-3762 Influence of Interference on Extraction Efficiency of Ultraviolet Vertical Light Emitting Diodes**
Hyung Jo Park, Seung Hwan Kim, Jun Beom Park, Tak Jeong, Jong Hyeob Baek
Korea Photonics Technology Institute

LT-3807 Orange Polymer Light-emitting Diodes based on Polythiophene with Electron Withdrawing Group

Cheol Min Kim¹, Kyoung Soon Choi¹, Hyeok Jin Hong², Sien Ho Han², Soo Young Kim¹

¹Chung-Ang University, ²Korea Polytechnic University

LT-3851 Lowering Sintering Temperature of AlN Ceramics with MgO-CaO-Al2O3-SiO2 Glass Addition

Hwa-Jun Lee¹, Sang-Woo Kim², Sung-Soo Ryu¹

¹Korea Institute of Ceramic Engineering and Technology, ²Sungkyunkwan University

LT-3870 Ohmic Contact to Nonpolar p-type GaN using Ni/Au

Ji-Myon Lee¹, Dong-Min Lee¹, Jaekwan Kim¹, Sungnam Lee², Keun Man Song³

¹Sunchon National University, ²Korea Polytechnic University, ³KANC

LT-3935 RF-MBE Growth of GaN/Al Heterostructures on 4H-SiC

Ohsawa Shinya, Daiki Tajimi, Tomohiro Yamaguchi, Tohru Honda

Kogakuin University

LT-3944 Numerical Analysis of Enhanced Blue InGaN/GaN Light Emitting Diode with Graded Indium Composition Barriers

Ho Young Chung, Kyeong Heon Kim, Su Jin Kim, Hee Dong Kim, Tae Geun Kim

Korea University

LT-4042 Advanced Synthetic Approaches of Nanocrystal Quantum Dots for LED Applications

Kyungnam Kim¹, Chul Jong Han², Yun Chang Park³, Isnaini Isnaini⁴, Yong-Hoon Cho⁴, Sohee Jeong¹

¹Korea Institute of Machinery & Materials, ²Korea Electronics Technology Institute, ³National NanoFab Center, ⁴KAIST

LT-4078 Development of Intelligent LED Lighting System with Bluetooth Wireless Interface

Woo Seok Yang¹, Hye Myeong Kim¹, Young Seek Cho¹, Seyoung Choi¹, Jaerock Kwon², Dae Hee Park¹

¹Wonkwang University, ²Kettering University

LT-4081 SiNx Nanopillars on AlGaInP-based LED using a Self-assembly ZnO Nanomasks Coating by SILAR Method

X. F. Zeng¹, Shih-Chang Shei², Shouu-Jinn Chang¹

¹National Cheng Kung University, ²National University of Tainan

LT-4084 Multi-nanostructures on the Surface of GZO/GaN-based LED to Enhance Light-extraction Efficiency by a Solution Method

Shih-Chang Shei

National University of Tainan

LT-4131 Fabrication of Electrochemical Luminescence Cells using Silica-based Gel Type Electrolytes

Jae Wook Bin¹, Sang Gon Kim¹, Dong Joo Kwak¹, Youl Moon Sung¹, Hoon Kyu Shin²

¹Kyungsung university, ²National Center for Nanomaterials Technology

LT-4217 Metal Contacts to Catalysis-free ZnO Nanorods Grown on p-type GaN using a Thermal Chemical Vapor Deposition

Seon-Ho Jang, Sei-Min Kim, Young-Woong Lee, Jun-Hyuk Choi, Myoung-sung Moon, Ji-Hoon Woo,

Ja-Soon Jang

Yeungnam University

LT-4229 Electrochemiluminescence Cell Properties using Ti-W-O Mixed Oxide Anode

You Sung Lim, Hyun Woo Choi, Youl Moon Sung, Joo Sin Lee, Min Woo Park
Kyungsung University

LT-4332 Development of Test Method Applying Conoscopy for Sapphire Wafer Reliability

Hyoung-Seuk Choi
Korea Institute of Ceramic Engineering & Technology

LT-4378 Fabrication of Geometric Sapphire Shaping In-GaN/Al2O3(S) LED Scribed by using Wet Chemical Etching

Anil Kawan¹, Soon Jae Yu¹, Hwa Jin Park¹, Ju-Ok Seo², Seok-Beom Yoon³
¹*Sunmoon University*, ²*Heesung Electronics Co., Ltd.*, ³*Kongju National University*

Nov. 14, 2013 (Thu.)

LT-2 (Advanced LED and Lighting Technology 2)

Conference Room Lobby

Chair : Prof. Sung-Yoon Jung (Yeungnam University)

16:30-18:00

LT
Poster

LT-0228 Investigation of Air-Hybrid DBR Structure for the Improvement of Light Output Power in AlGaInP-based LED

Ho Soung Ryu, Sueng Ho Park, Hwa Sub Oh
Korea Photonics Technology Institute

LT-0247 Electroluminescent Properties of Organic Light-emitting Diodes using CuPc

Jungbok Lee¹, Taewan Kim², Joon Ho Ahn³, Won Jae Lee¹
¹*Gachon University*, ²*Hongik University*, ³*Electrical Industry Reserch Institute of Korea (ERIK)*

LT-0313 OLED Lightings with an Integrated Optical Monitoring System

Dongkyun Shin, Jongwoon Park
Korea University of Technology and Education

LT-0360 Developing PWM Controller for Driving Backlight Illumination in LED Systems

Keehong Um¹, Sooyeup Yoo²
¹*Hansei University*, ²*Amotech Co., Ltd.*

LT-0373 Photoluminescence of Fluorine Containing Apatite Phosphor Materials for Light Emitting Diodes

Jung-Il Lee¹, Kyoung Won Cho¹, Hyun Cho², Jeong Ho Ryu¹
¹*Korea National University of Transportation*, ²*Pusan National University*

LT-0376 Tunable Upconversion Luminescence of Yb3+, Ho3+, Tm3+ Co-doped Scheelite Structural Double Molybdate Crystals

Jung-Il Lee¹, Kyoung Won Cho¹, Hyun Cho², Jeong Ho Ryu¹
¹*Korea National University of Transportation*, ²*Pusan National University*

LT-0388 Three-dimensional Surface Roughening of AlGaInP-based Light Emitting Diodes via One-step Wet Etching

Chang-Hwan Kim, Sang Hyun Jung, Hyeong-Ho Park, Hyun-Beom Shin, Ho Kwan Kang
Korea Advanced Nano Fab Center

LT-0398 Carrier Transport Mechanisms of Hybrid ZnO Nanorod-polymer LEDs

Dong Ick Son, Byoung Wook Kwon, Sungjae Cho, Won Kook Choi
Korea Institute of Science and Technology

LT-0728 Characteristics of c-plane and a-plane AlGaIn/AlN Films Grown by Metalorganic Chemical Vapor Deposition

Yong Gon Seo, Sun Hye Shin, Doo Soo Kim, Hyung-Do Yoon, Sung-Min Hwang
Korea Electronics Technology Institute

LT-0750 Effects of Current Crowding on Reliability Characteristics of GaN-Based Light-Emitting Diodes

Eunjin Jung, Seongjun Kim, Young-un Gil, Seonghoon Jeong, Munsik Oh, Hyunsoo Kim
Chonbuk National University

LT-0761 Influence of Thermal Stress on the Optical Properties of InGaIn/GaN Quantum Wells

Yong Gon Seo¹, Sun Hye Shin¹, Doo Soo Kim¹, Tae Hoon Jung², Jong-Hyup Baek², Sung-Min Hwang¹
¹*Korea Electronics Technology Institute, ²Korea Photonics Technology Institute*

LT-0799 Optical Characteristics of Green Light Emitting Organic Devices: Finite Element Approach

Youngwook Hwang, Hyeonggi Lee, Taeyoung Won
Inha University

LT-0808 Computational Study on Organic Light Emitting Diodes with Emission Layer

Hyeonggi Lee, Youngwook Hwang, Taeyoung Won
Inha University

LT-0813 Junction Temperature and Internal Quantum Efficiency of High Power Ceramic Package LEDs

Byungjin Ma, Kwanhoon Lee
Korea Electronics Technology Institute

LT-0817 Gallium Oxide Nanoparticle Electrodes Mixed with Single-wall Carbon Nanotube Networks for Deep Ultra-violet Light-emitting Diodes

Kyong Heon Kim¹, Sang Young Park¹, Hee Woong Shin¹, Byeong Ryong Lee¹, Ho-Myoung An², Tae Geun Kim¹
¹*Korea University, ²Osan College*

LT-0952 Patterned Diffuser Panel in LED Flat Lighting for Improvement of Luminance

Won-Sik Choi, Hao Cui, Ja-Soon Jang, Si-Hyun Park
Yeungnam University

LT-0993 Enhancement of Optical Performance of Near-UV Nitride-based Light Emitting Diodes with Different Aluminum Composition Barrier Structure

Chin-chi Hsiang¹, C. K. Wang¹, Y. Z. Chiou¹, J. Lee¹, J. J. Tang¹, W. S. Chen¹, C. M. Cheng¹, D. H. Lee¹, K. H. Chen², W. Y. Yan³

¹*Southern Taiwan University of Science and Technology, ²Tung Fang Design University, ³High Power Opto. Incorporation*

- LT-1026 YAG: Ce Phosphor Coated with SiO₂: Eu: Au Film for Enhancing Color Rendering Index of White LED**
Kwang-Cheol Lee, So-Ra Gang, Deokgi Kim
Korea Photonics Technology Institute
- LT-1078 Transparent Conductive Electrode using ITO-Ag-Ga₂O₃ Multilayers for Near Ultraviolet Light-Emitting Diodes**
Kie Young Woo¹, Hee Woong Shin¹, Suk Won Kim¹, Byeong Ryoung Lee¹, Jae Hoon Lee¹, Kyeong Heon Kim¹, Su Jin Kim¹, Ho Myoung An², Tae Geun Kim¹
¹*Korea University*, ²*Osan College*
- LT-1086 Improved Electrical and Optical Properties of Indium Gallium Tin Oxide Films via Hydrogen Post-annealing**
Tae Geun Kim¹, Ho-Myoung Ahn², Su Jin Kim¹, Hee Dong Kim¹, Kyong Heon Kim¹, Sang Young Park¹, Kie Young Woo¹, Hee Woong Shin¹, Byeong Ryoung Lee¹, Suk Won Kim¹
¹*Korea University*, ²*Osan College*
- LT-1230 Transient Voltage Suppressor Diode Design for The Protection of High Brightness GaN-Based LEDs from Various ESD Shocks**
Daohung Bouangeune¹, Ju-Young Jung¹, Sang-Sik Choi², Chel-Jong Choi¹, Deok-Ho Cho², Kyu-Hwan Shim¹
¹*Chonbuk National University*, ²*Sigetronics, Inc.*
- LT-1281 Ag-based Ohmic Contacts to p-GaN for High-efficiency GaN-based Light-Emitting Diodes**
Munsik Oh, Seongjun Kim, Eunjin Jung, Seonghoon Jeong, Youngun Gil, Gwangsun Seo, Hyunsoo Kim
Chonbuk National University
- LT-1292 Design and Manufacture of High Power Improved LED Floodlight Considering Efficiency and Long Lighting**
Seung-Myeong Baek¹, Dong-Soon Kwag²
¹*Changwon Moonsung University*, ²*Kyungil University*
- LT-1437 Synthesize and Physical Properties of Diopside/AlN Composites for LED Package**
Seunggu Kang, Manhyung Han
Kyonggi University
- LT-1494 Study on the Crystallization Behavior of Diopside Glass-ceramics Fabricated by LTCC Process**
Seunggu Kang, Yongsung Kim
Kyonggi University
- LT-1534 Study on Transmittance Characteristics of Silicone Encapsulant for LED by Thermal and Optical Stress Test**
Je-Min Kim, Byung-Jin Ma, Kwan-Hun Lee
Korea Electronics Technology Institute (KETI)
- LT-3451 Effect of Chip Wavelength and Particle Size on the Performance of Two Phosphor Coated W-LEDs**
P. J. Yadav¹, C. P. Joshi², S. V. Moharil¹
¹*R.T.M.Nagpur University*, ²*Shri Ramdeobaba K. N. Engineering College*

LT-3648

Investigation of Nano-pillar Structure for the Improvement of Light Output Power in AlGaInP-based LED

Ho Soung Ryu¹, Sueng Ho Park², Hyung Joo Lee³, Young Jin Kim³, Young Dae Cho³, Min Joo Park¹, Joon Seop Kwak¹, Hwa Sub Oh²

¹*Sunchon National University*, ²*Korea Photonics Technology Institute*, ³*AUK Incorporation*

LT-4520

Synthesis of Aluminum Nitride Powders and Fibers by Direct Nitridation and Carbothermal Reduction Nitridation

Thi My Linh Dang^{1,2}, Changyeoul Kim¹, Dae Ho Yoon²

¹*KICET*, ²*Sungkyunkwan University*

Thin Film Processing and Devices (TF)

Oral Presentation

Nov. 14, 2013 (Thu.)

TF-1 (Thin Film Processing and Devices 1)

304

Chairs : Prof. Soon-Gil Yoon (Chungnam National University)
Prof. Migaku Takahashi (Tohoku University)

15:00-17:00

TF-2960 Structural Characterization of GaN-based LEDs and SiC for Power Devices: the Role of TEM

15:00-15:30

Invited Speech

Soon-Ku Hong¹, Jinsub Park², Jung-Hoon Song³, Dong-Cheol Oh⁴, Takafumi Yao⁵

¹Chungnam National University, ²Hanyang University, ³Kongju National University, ⁴Hoseo University,

⁵Tohoku University

TF-4527 Texture Control for High Performance Al-doped ZnO Films

15:30-16:00

Invited Speech

Sang-Im Yoo

Seoul National University

TF-0963 A Sub-nanometer-thin Continuous TiN Film: Metal or Non-metal?

16:00-16:30

Invited Speech

Alexey Y. Kovalgin, Hao Van Bui, Rob A. M. Wolters

University of Twente

TF-2075 Statistical Modeling and Analysis for PECVD SiO₂ Deposition Process Development

16:30-16:45

Tae-min Ha, Jung Mo Gu, Sang Jeen Hong

Myongji University

TF-4355 Aluminum Island Films Formation under the Electron Irradiation of the Dielectric Surface

16:45-17:00

I.P. Ivanenko, A.A. Khaidarov, E.Yu. Zykova, I.K. Gainullin

Moscow State University

Nov. 15, 2013 (Fri.)

TF-2 (Thin Film Processing and Devices 2)

302

Chairs : Prof. Alexey Y. Kovalgin (University of Twente)
Prof. Soonku Hong (Chungnam National University)

09:00-10:30

TF-2295 Current Perspectives of CoPt based Granular Perpendicular Recording Media - Stacking Sequence Coherency of hcp/fcc Transition Metal Alloys and Pseudo hcp Structure-

09:00-09:30

Invited Speech

Shin Saito, Migaku Takahashi

Tohoku University

TF-2878 Simultaneous Determination of Carrier Concentration and Optical Transparency of Thin Films of Transparent conducting Oxide Semiconductors

09:30-10:00

Invited Speech

Chaman Singh, Shyama Rath

University of Delhi

TF
Oral

067

TF-3184 Nanoscale Floating Gate Memory Device using Self-Assembled Bismuth Nanocrystals in Bi₂Mg₂/3Nb₄/307 (BMN) Thin Films on Flexible Polymer Substrate

10:00-10:15

Hyun-June Jung, Hyung-Jin Choi, Soon-Gil Yoon
Chungnam National University

TF-2223 Effect of Yttrium Contents on Electrical Properties of Solution-Processed Y-InSnO Thin Film Transistor

10:15-10:30

Jun Hyuk Choi, Tae Woong Kim, Soo Min Hwang, Seung Muk Lee, Geun Chul Park, Sang Hyub Lee, Jun Hyung Lim, Jinho Joo
Sungkyunkwan University

Nov. 15, 2013 (Fri.)

TF-3 (Thin Film Processing and Devices 3)

302

Chair : Prof. Shyama Rath (University of Delhi)

10:45-12:00

TF
Oral

TF-0319 The Antibacterial Effect of Silver Nanoparticle-based Nanostructures Prepared on Transparent Glass and Flexible Substrates

10:45-11:15

Invited Speech

So Heo, Soon Yoon
Chungnam National University

TF-3538 The Diamond-Like Carbon Film on Ceramic Substrate for Efficient Power Dissipation of Light Emitting Diodes

11:15-11:30

Yu-Kai Tang, Cheng-Yu Yang, Chi-Feng Lin, Jui-Ming Hsu, Jing-Shyang Horng, Jerry Kung
National United University

TF-3533 Composition-dependent Thermoelectric Power Factors of β -Ag_xTe_{1-x} Thin Films Synthesized by Topochemical Transformation Reaction

11:30-11:45

Hyunsung Jung¹, Nosang Myung²
¹Korea Institute of Ceramic Engineering & Technology, ²University of California-Riverside

TF-1420 High Transparent and Low Resistive ZTO/Ag/ZTO Electrode Prepared by Radio-frequency Sputtering

11:45-12:00

Rina Pandey, Jeong Do Yang, Se Hee Cho, Young Soo No, Dong Hee Park, Won Kook Choi
Korea Institute of Science and Technology

Nov. 14, 2013 (Thu.)

TF-1 (Thin Film Processing and Devices 1)

Conference Room Lobby

Chair : Prof. Soon-Gil Yoon (Chungnam National University)

16:30-18:00

TF-1712 Dry Etching Characteristics of ZTO Thin Films for Transparent Conducting Oxide Application using High Density Plasma

Han-Soo Kim¹, Jong-Chang Woo², Young-Hee Joo¹, Kyung-Rok Choi¹, Yoon-Soo Chun¹, Chang-Il Kim¹
¹Chung-Ang University, ²Electronics and Telecommunications Research Institute(ETRI)

TF-1856 Characteristics of the AZO Grain Size Changes Depending on the RF-magnetron Power

Bum-Suk Lee, Young-Hee Joo, Yoon-Soo Chun, Jong-Chang Woo, Chang-Il Kim
 Chung-Ang University

TF-2132 Dry Etching Properties of PAR Substrate for Flexible Embedded TFT Applications using High Density Plasma

Young-Hee Joo, Jong-Chang Woo, Yoon-Soo Chun, Chang-Il Kim
 Chung-Ang University

TF-2322 Field Emission Characteristics of the Nanostructured Oxide Materials Synthesized using the Conventional Anodic Oxidation Process

M. W. Kim¹, K. K. Kim¹, G. J. Nam¹, D. H. Kim², H. G. Cho², J. U. Kim²
¹NexviewTM, ²Korea Electrotechnology Research Institute (KERI)

TF-3142 A Study on Graphene Thin Films Grown on Sapphire Substrate using PLD

ByoungJin Na, TaeHwa Kim, Cheon Lee
 Inha University

TF-3147 Deposition of Monocrystalline Silicon Thin Films applying for Solar Cells by Atmospheric Plasma Enhanced Chemical Vapor Deposition

Cheolhyun Lim, Su-Wung Baek, Kwang-Il Choi, Dong-Cheon Kang, Woohyoung Lee, Jun Young Kwon, Sukho Lee
 Southwestern Research Insitute of Green Energy Technology

TF-3173 Properties of Graphene Oxide Thin Films coated using the Electrophoretic Method

Jungyeon Kim, Young-Hwan Kim, Seong-Il Kim
 Korea Institute of Science and Technology

TF-3180 Electroluminescence of p-Ge/i-Ge/n-Si Hetero Junction PIN LED

Yeon-Ho Kil, Hyeon Deok Yang, Joung Hee Kim, Joo Yong Jeong, Zagarzusem Khurelbaatar, Sukill Kang, Tae Soo Jeong, Chel-Jong Choi, Taek Sung Kim, Kyu-Hwan Shim
 Chonbuk National University

TF-3206 Growth of CoxMn3-xO4 Thin Films and Evolution of their Surface Morphologies to Checkerboard

Taeyoung Koo¹, Jaeyoung Kim¹, Yoonhee Jeong², Jonghyun Song³
¹Pohang Accelerator Laboratory, ²Pohang University of Science and Technology, ³Chungnam National University

- TF-3225 Induced Optical Density in Ag-SiO₂-TiO₂ Photochromic Films**
 Bonghoon Kang¹, Dong-Soo Choi², Gi-Tae Joo³
¹Far East University, ²Sungkyunkwan University, ³Seoul National University of Science & Technology
- TF-3228 Effect of Surfactant on Electrical/Thermoelectric Properties of Electrodeposited Bi₂Telluride Thin Films**
 In-Joon Yoo¹, Youngsup Song¹, Dong Chan Lim¹, Kyu Hwan Lee¹, Joo Yul Lee¹, Yang Do Kim², Jae-Hong Lim¹
¹Korea Institute of Materials Science, ²Pusan National University
- TF-3271 Effects of Source Concentration and Temperature on the Microstructure and Properties of ZnO Thin Films deposited by MOCVD using Ultrasonic Nebulization**
 Choon-Ho Lee, Min-Seok Choi
 Keimyung University
- TF-3326 Diagnostic of Capacitively Coupled Radio Frequency Plasma: An Approach through Electrical Discharge Characteristic**
 Sung-Suk Wi, EuiJeong Son, Yun-Gi Kim, Hae June Lee, Ho-Jun Lee
 Pusan National University
- TF-3447 Fabrication of High Ordered Nanoporous GaN by Electrochemical Etching**
 Joonmo Park¹, Jin-Ho Kanga², Byeong Uk Ye¹, Ji-hyun Kim¹, Seung-Jae Lee³, Jong Hyeob Baek³, Sang-Wan Ryu², Jeong Min Baik¹
¹Ulsan National Institute of Science and Technology, ²Chonnam National University, ³Korea Photonics Technology Institute
- TF-3550 Improvement of Electro-Optical Property in PDLC Device by using Various Cross-linker System**
 Sok Kyun Choi, Young Rock Kim, Hee Jin Ahn, Jae Hong Kim
 Yeungnam University
- TF-3688 Study on the Early Stage of Al Thin Film Synthesis via Metal-organic Chemical Vapor Deposition**
 Kyu Seomoon, Kisoo Kim, Pyungwoo Jang, Chisup Jung, Kwang-Ho Kim
 Cheongju University
- TF-3834 Hydrogen Sensor using the Pd-film Supported on Anodic Aluminum Oxide**
 Bum-Joon Kim, Jung-Sik Kim
 University of Seoul
- TF-3873 Growth and Superconducting Properties of Bi₂Sr₂CaCu₂O_{8+δ} Thin Films Incorporated with Iridate Nanoparticles**
 Jeffrey De Vero¹, Inwoong Hwang¹, Hyeonseop Shin¹, Alvin Carl Santiago², Doopyo Lee³, Roland Sarmago², Jonghyun Song¹
¹Chungnam National University, ²University of the Philippines, ³Pohang University of Science and Technology
- TF-3900 NOR-logic Circuits Consisting of Nanoparticle Films Vertically Stacked on Plastics**
 Jinyong Choi, Junggwon Yun, Kyoungah Cho, Sangsig Kim
 Korea University

- TF-3907 Study on Phase Transition Properties of YBCO Thin-Film Wire with Different Thickness and Specific Resistance of Stabilization Layer Deposited by Thermal Evaporation Method**
Ho Ik Du, Soung Ouk Heo, Tae Min Kim, Byoung Sung Han, Byoung Jung Choi, Byung Yoon Chu, Sung Chae Yang
Chonbuk National University
- TF-3967 Effect of Narrow Si Trench Width on Residual Strain in Ge Epilayers**
Byongju Kim¹, Sun-Wook Kim¹, Hyunchul Jang¹, Jeong-Hoon Kim¹, Sangmo Koo¹, Dae-Hyun Kim², Byoung-Gi Min², Dae-Hong Ko¹
¹Yonsei University, ²SEMATECH
- TF-3979 Microwave Annealing Effect on Electrical Characteristics of Sputtered ZnO-based Thin Film Transistors on Plastics**
Sukhyung Park, Kyoungah Cho, Kyungwhan Yang, Sangsig Kim
Korea University
- TF-4041 Low-temperature, High Performance Metal Oxide Thin Film Transistors Fabricated with Heated Metal Oxide Solution**
Keun Ho Lee¹, Hyun Woo Lee¹, Seon Woong Han¹, Hong Koo Baik¹, Jai Youl Lee², Se Jong Lee³
¹Yonsei University, ²Yeungnam University, ³Kyungsung University
- TF-4067 Characteristics of Germanium Channel Metal–Oxide–Semiconductor Field-Effect Transistor with ALD Beryllium Oxide Dielectric Layer for High Performance Devices**
H.S. Shin¹, J.H. Yum², P. Kirsch², G. Bersuker², S. K. Banerjee³, J.C. Lee³, J. Oh⁴, H.D. Lee¹
¹Chungnam National University, ²SEMATECH, ³University of Texas at Austin, ⁴Yonsei University
- TF-4099 Electrical and Optical Properties of Zn-doped SnO₂ Thin Films with Continuous Composition Spread**
JinJu Lee^{1,2}, SeokJin Yoon¹, YongSoo Cho², JiWon Choi¹
¹Korea Institute of Science and Technology, ²Yonsei University
- TF-4137 Analysis of Thermal Stability of Ni Silicide Formed with Ni/Er/Ni/TiN Structure for Schottky Barrier MOSFETs**
Sung-Kwen Oh, Hong-Sik Shin, Meng Li, Horyeong Lee, Hi-Deok Lee
Chungnam National University
- TF-4248 Characteristics of a-SiC:H/a-SiGe:H Hetero-junction Thin Film Solar Cells with and without a-Si:H Buffer Layer at the p/i Interface**
Won Ho Son, Young Soon Moon, Si Hun Lee, Tae Yong Lee, Sie Young Choi
Kyungpook National University
- TF-4274 Study of the N₂O Plasma Treatment Process Optimization for Protection Layer Materials**
Jong-woo Kim¹, Sung Haeng Cho², Chi-Sun Hwang², Min Ki Ryu², Jae-Eun Pi², In-Yong Eom², Heeok Kim², Eun Suk Park², Oh Sang Kwon², Sang-Hee Ko Park², Byeong-Kwon Ju¹
¹Korea University, ²ETRI

TF-4286 A Fabrication of VOx/ZnO/VOx Multilayer Thin Film for Uncooled Microbolometer Infrared Detectors

Myung-Soo Han, Su-bin Moon, Dae Hyeon Kim, Hang Ju Ko, Jae Cheol Shin, Hyo Jin Kim, Won Geun Jang
Korea Photonics Technology Institute

TF-4414 Properties of AZO (Al doped ZnO) Films according to Amount of Al Dopant by Sol-gel Process

Sang-Hun Nam, Ki-Hwan Hwang, Hyeon Jin Seo, Dong Woo Ju, Jin Su Lee, Jung Hoon Yu, So Hyoun Jeon, Jin-Hyo Boo
Sungkyunkwan University

Nov. 15, 2013 (Fri.)

TF-2 (Thin Film Processing and Devices 2)

Conference Room Lobby

Chair : Prof. Soonku Hong (Chungnam National University)

13:00-14:30

TF-0283 Leakage Current and Threshold Voltage Characteristics of a-Si:H TFTs through Depending on Processing Conditions

Kee-Jeong Yang
DGIST

TF-0290 Fabrication of Zn-doped ITO (ZITO) Thin Films for Organic Light Emitting Diodes by RF Magnetron Sputtering

SeongHo Han, SuKyoung Kwon, KyuMann Lee
Korea University of Technology and Education

TF-0318 Trifluoromethylation of Poly(lactic acid) in a Catalyst-Free System

Sungchul Hong, Sangeun Lee, Moon-Sun Kim
Sungkyunkwan University

TF-0468 Metal-organic Chemical Vapor Deposition of ZrN (111) Films

Joo Jin
Chonbuk National University

TF-0487 Photoluminescence in Epitaxially-grown BaTiO₃:Eu³⁺ Films on SrTiO₃(100) Substrates by a Chemical Solution Process

Young-Sun Jeon¹, Seung-Dae Kim¹, Ju-Hoon Park¹, Young-Hwan Lee², Seung Hwangbo³, Jin-Tae Kim⁴, Kyu-Seog Hwang¹
¹Nambu University, ²Chunnam Techno University, ³Honam University, ⁴Chonsun University

TF-0501 Virtual Metrology for SiO₂ Plasma Etch Process using Optical Emission Spectroscopy

Boomsoo Kim, Dongsun Seo, Sang Jeon Hong
Myongji University

TF-0531 Endpoint Detection in Bosch TSV Process using Etch Cycle Detection

Sung-Hwan Shin, Young-Kook Park, Seung-Soo Han
Myongji University

- TF-0579 Endpoint Detection using Hidden Markov Model for SiNx/SiOx Plasma Etch Process**
Young-Kook Park, Sung-Hwan Shin, Seung-Soo Han
Myongji University
- TF-0606 Femtosecond Laser Processing for Nanoscale Metal Film**
Y. H. Tsai, C. Y. Ho, C. Ma
Hwa Hsia Institute of Technology
- TF-0848 Electrical Characteristics of Organic Light-Emitting Diodes Depending on the Electron-Injection Materials of Metal Carbonates Series**
Yong-Gil Kang¹, Seung-Tae Kim¹, Gwi-Yeol Kim¹, Jong-Yeol Shin², Tae-Wan Kim³, Jin-Woong Hong¹
¹Kwangwoon University, ²Sahmyook University, ³Hongik University
- TF-0851 Structures and Characteristics of Delafossite CuCr1-xO2 Thin Films prepared by using Pulsed Laser Deposition**
Umar Sidik, Hee-Young Lee, Jai-Yeoul Lee
Yeungnam University
- TF-0872 H2S Gas Sensing Properties of Pt-functionalized ZnS Nanowires Enhanced by UV Irradiation**
Youngho Mun, Sunghoon Park, Hyunsung Ko, Chongmu Lee
Inha University
- TF-0873 CO Gas Sensing Properties of ZnO/ZnS Core-shell Nanowires**
Sunghoon Park, Hyunsung Ko, Soyeon An, Chongmu Lee
Inha University
- TF-0915 The Growth of Dominant Anatase (or rutile) TiO2 Phase using RF Magnetron Sputter**
Ji Cheon Lim, Kyung Wha Lee, Kyu Jeong Song
Chonbuk National University
- TF-0966 Structural and Electrical Properties of Semiconducting YBa2Cu3O6+x Thin Films with Coating Number**
Tae-Ho Lee¹, Sung-Gap Lee¹, Hye-Rin Jung¹, Young-Hee Lee²
¹Gyeongsang National University, ²Kwangwoon University
- TF-0979 Superior Resistive Switching Properties based Solution Processed High-k Thin Films for Nonvolatile Memory**
Ki-Hyun Jang, Kwang-Won Cho, Jung-Hoon Park, Tae-Hwan Lim, Sung-Min Park, Sung-Wan Moon, Se-Man Oh, Won-Ju Cho
Kwangwoon University
- TF-1068 Effect of Cu Pad Morphology on the Direct-Cu Pillar Process in CMOS Image Sensor**
Seonjea Lee¹, Eunmi Choi¹, Areum Kim¹, Hee Soo Choi¹, Yinhua Cui¹, Dong Joon Kim², Sung Gyu Pyo¹
¹Chung-Ang University, ²Magnachip Semiconductor, Ltd.

TF-1173 Polarization-dependent EXAFS Study of MgB2 Thin Films on Different Thickness of Crystalline SiC Buffer Layers

Witha B.K Putri¹, Duc H. Tran¹, Byeongwon Kang¹, Oh-Young Lee², Won-Nam Kang², Dong-Seok Yang¹, Takafumi Miyanaga³

¹Chungbuk National University, ²Sungkyunkwan University, ³Hirosaki University

TF-1198 Enhanced Sensing Properties of Fully Depleted Silicon-on-insulator based Extended Gate Field-effect Transistors with Dual-gate Operation

Tae-Eon Bae, Hyun-June Jang, Won-Ju Cho

Kwangwoon University

TF-1333 ZnO Transparent Conducting Oxide Thin Film Prepared by Aerosol-Deposition Process

Jinhwan Kim, Jung-Hyuk Koh

Kwangwoon University

TF-1358 Synthesis of Sol-Gel-Derived Ti-silicate/Si Films and Characterization of their Microstructure, Chemical Structure, Composition, and Consequent Dielectric Properties with Rapid Thermal Process Temperature

Seung Muk Lee, Soo Min Hwang, Geun Chul Park, Jun Hyuk Choi, Tae Woong Kim, Sang Hyub Lee, Jun Hyung Lim, Jinho Joo

Sungkyunkwan University

TF-1384 Residual Stress Relaxation of Ba_{0.6}Sr_{0.4}TiO₃ Multi-layer Thin Films using La_{0.5}Sr_{0.5}CoO₃ Buffer Layer

Woo-Sung Choi^{1,2}, Min-Gyu Kang¹, Byeong-Kwon Ju², Seok-Jin Yoon¹, Chong-Yun Kang^{1,2}

¹Korea Institute of Science and Technology, ²Korea University

TF-1388 Analysis on Characteristics of DLC Coating Thin Film in Tungsten Carbide for Medical Thermal-infrared Lenses

Yongpil Park, Taegon Kim, Minwoo Cheon

Dongshin University

TF-1496 Selective Lateral Wet Etching of Ge Buffer Layer for Device Integration in GaN on Ge on Si Hetero Epitaxial Layer Structure

Yeon-Ho Kil, Young-Jae Park, Hyun-Duk Yang, Taek Sung Kim, Chang-Hee Hong, Chel-Jong Choi, Kyu-Hwan Shim

Chonbuk National University

TF-1502 Window Layer of Tunable Boron Doped Nanocrystalline Silicon Oxide Film for Solar Cell Applications

Jinjoo Park, Chonghoon Shin, Hyeongsik Park, Junhee Jung, Sungjae Bong, Youn-Jung Lee, Vinh Ai Dao, Junsin Yi

Sungkyunkwan University

TF-1522 Electrical Properties of Mesa Structural Near-Infrared n-Type Nanocrystalline FeSi₂/p-Type Si Heterojunction Photodiodes

Nathaporn Promros¹, Suguru Funasaki², Ryuhei Iwasaki², Tsuyoshi Yoshitake²

¹King Mongkut's Institute of Technology Ladkrabang, ²Kyushu University

- TF-1523 GaN Epitaxy Layer Grown on Si (111) Substrate using Low Temperature Ge Buffer Layer**
Yeon-Ho Kil, Young-Jae Park, Teak Sung Kim, Chang-Hee Hong, Chel-Jong Choi, Kyu-Hwan Shim
Chonbuk National University
- TF-1593 Preparation of Al Doped ZnO Thin Films by MOCVD using Ultrasonic Nebulization**
Choon-Ho Lee, Do-Woo Kim
Keimyung University
- TF-1627 Highly Selective and Sensitive One-Chip Array Sensor Composed of Thin Films, Metal Catalysts and Nanostructures**
Soo Deok Han^{1,2}, Hi Gyu Moon², Jin Sang Kim², Seok Jin Yun², Chong Yun Kang^{1,2}
¹KU-KIST Graduate School of Converging Science and Technology, ²Korea Institute of Science and Technology
- TF-1756 Effect of TiNx Inter/Outer Layer on Ag-Cr Thin Films at Elevated Temperatures for Low Emissivity Applications**
Chadrasekhar Loka, Ho Tak Yu, Kee-Sun Lee
Kongju National University
- TF-1770 Comparative Study of Effects of Growth Temperature and O₂ Partial Pressure on Properties of TiO₂ Thin Films**
Min-Wook Pin¹, Won-Jae Lee¹, Eun-Ho Choi², Young-Zo Yoo²
¹Dong-Eui University, ²Samsung Corning Precision Materials
- TF-1859 Analysis of Current-Voltage-Temperature (I-V-T) and Capacitance-Voltage-Temperature (C-V-T) Characteristics of Au/n-Si Schottky Barrier Diode with PEDOT: PSS Interfacial Layer**
Zagarzusem Khurelbaatar, Kyu-Hwan Shim, Jung-Hwan Hyung, Gil-Song Kim, Joo-Young Jeong, Chel-Jong Choi
Chonbuk National University
- TF-1860 Functionality Tuning in ZnO ALD Thin Films by Local Doping**
Yoon Jang Chung, Won Jin Choi, Chang Wan Lee, Seong Gu Kang, Young Kuk Lee
Korea Research Institute of Chemical Technology
- TF-1871 Effect of Ti Buffer Layer on the Optical Characteristics of Si₃N₄/SnZnO/AZO/Ag/Ti/ITO Multi-layered Films**
Sang Yun Lee, Gun Eik Jang
Chungbuk National University
- TF-1896 Structures and Characteristics of Li-doped NiO Thin Films Prepared by using RF-Magnetron Sputtering**
Ho-Beom Kwon, Hee-Young Lee, Jai-Yeoul Lee
Yeungnam University
- TF-1901 The Optical and Electrical Properties of ZTO/Ag/ZTO Multi-layer Films with AlN and Al₂O₃ Blocking Layer**
Sang Yun Lee, Yong Jun Shin, Gun Eik Jang
Chungbuk National University

- TF-1920 Growth of Ge Layer on 8 Inch Si(100) Substrates by using RTCVD**
Yeon-Ho Kil, Hyeon Deok Yang, Joung Hee Kim, Joo Yong Jeong, Sukill Kang, Tae Soo Jeong, Chel-Jong Choi, Taek Sung Kim, Kyu-Hwan Shim
Chonbuk National University
- TF-2019 Structure of V-Cr-Y Thin Films by RF Sputtering for Hydrogen Separation**
Byounggon Lee, Yongho Yoon, Jihoon Jung
Kyonggi University
- TF-2033 Optical Characteristics of ITO Thin Film with Different Thickness of SiO₂ and Nb₂O₅ Buffer Layer for Touch Sensor Application**
Yong An Kwon, Gun Eik Jang
Chungbuk National University
- TF-2034 Optical Annealing Effects for the Low Temperature Sputtered Al and In Co-doped ZnO Thin Films**
Sang-Uk Park, Jung-Hyuk Koh
Kwangwoon University
- TF-2039 Characterization of Backside Passivation Process for Through Silicon Via Wafer**
Dong Hyun Kang¹, Jung Mo Gu¹, Young Don Ko², Sang Jeen Hong¹
¹Myongji University, ²University of Toronto
- TF-2090 Growth of Crack-free (11-22) Semi-polar Thick GaN Layers on m-plane Sapphire by Hydride Vapor Phase Epitaxy**
Byeongchan So, Youngjong Won, Seohwi Woo, Dongheon Lee, Minho Kim, Okhyun Nam
Korea Polytechnic University
- TF-2100 Growth of (11-22) Semipolar In-rich InGaN Layer on Low Defect GaN Template**
Daehong Min, Jongjin Jang, Kyuseong Lee, Seunghwan Moon, Jaehwan Kim, Sooryong Chae, Okhyun Nam
Korea Polytechnic University
- TF-2157 Deep Germanium Etching by using Inductively Coupled CF₄ Plasma**
Hyun-Deok Yang, Ji-Hyun Yu, Yeon-Ho Kil, Jong-Hee Kim, Taek-Sung Kim, Vallivedu Janardhanam, Chel-Jong Choi, Kyu-Hwan Shim
Chonbuk National University
- TF-2167 Electrical and Optical Characteristics of Epitaxially-grown Ge-on-Si p-i-n Photodetectors for the Corresponding C-band Spectrum Range**
Hyun-Deok Yang, Ji-Hyun Yu, Yeon-Ho Kil, Jong-Hee Kim, Taek-Sung Kim, Vallivedu Janardhanam, Chel-Jong Choi, Kyu-Hwan Shim
Chonbuk National University
- TF-2168 Relationship of Layer Thickness, Growth Rate and Orientation for Ba_{0.67}Sr_{0.33}TiO₃/LaNiO₃ Thin Film System**
Xiaoyang Chen, Minglei Fan, Xiaoshan Zhang, Ping Yu
Sichuan University

- TF-2187 Bipolar Switching Characteristics of CBTi144 Thin Films for RRAM Devices**
Jian-Yang Lin¹, Chia-Lin Wu¹, Kai-Huang Chen²
¹National Yunlin University of Science and Technology, ²Tung-Fang Design University
- TF-2275 Influence of Oxygen on the Properties of Transparent Ga-Al-ZnO Thin Film**
JeongSoo Hong¹, Nobuhiro Matsushita¹, Kyunghwan Kim²
¹Tokyo Institute of Technology, ²Gachon University
- TF-2340 Synthesis of Epoxy-ZrO₂ Hybrid Thin Film with High Refractive Index**
Young Taec Kang¹, Dong Pil Kang¹, Dong Jun Kang¹, Il Doo Chung²
¹Korea Electrotechnology Research Institute, ²Pusan National University
- TF-2356 EQCM Studies of the Effect of Sulfamic Acid on the Formation Cu-Se Compounds**
Dang Thi Bich Hop¹, Pham Hong Quang², Duc H. Tran³, Do Thi Kim Anh⁴, Do Phuc Quan⁴, Ngo Dinh Sang⁵, W. B. K. Putri³
¹Vietnam Academy of Science and Technology, ²PetroVietnam University, ³Chungbuk National University, ⁴Hanoi University of Science, ⁵National University of Civil Engineering
- TF-2370 Synthesis and Fabrication of Fiber-textured Thin Films of AMO₄ (A=Ca-Ba, M=W, Mo) via Chemical Solution Processing**
Zhiqiang Xu^{1,2}, Xiaoyang Chen¹, Guobin Hu¹, Xu Liu¹, Ping Yu¹
¹Sichuan University, ²Kunming University
- TF-2449 Epitaxial Lateral Overgrowth of m-plane GaN on m-plane Sapphire by Hydride Vapor Phase Epitaxy**
Minho Kim, Seohwi Woo, Byeongchan So, Jongjin Jang, Daehong Min, Okhyun Nam
Korea Polytechnic University
- TF-2564 Effect of Amino Ligand Size in Si Precursors on Initial Reaction with an -OH-terminated Si (001) Surface for Atomic Layer Deposition**
Ji-Su Kim, Jin-Hoon Yang, Yong-Chan Jeong, Dae-Hee Kim, Seung-Bin Baek, Yeong-Cheol Kim
Korea University of Technology and Education
- TF-2721 Improved Surface Morphology of Ultrananocrystalline Diamond Film by Deaggregation of Nanodiamond Seeds**
Jong Cheon Park¹, Ok Geun Jeong¹, Tae Gyu Kim¹, Jin Kon Kim¹, Jeong Ho Ryu², Sungu Hwang¹, Hyun Cho¹
¹Pusan National University, ²Korea National University of Transportation
- TF-2787 Synthesis of c-axis Preferred Orientation Aluminum Doped Zinc Oxide Transparent Conductive Thin Films by Ultraviolet and Infra assisted Sol-gel Method**
Yung-kuan Tseng, Feng-Ming Pai, Chao-Hsien Wu
National Yunlin University of Science and Technology
- TF-2943 Improvements in the Bias Illumination Stability of Amorphous Phase InGaZnO Thin Film Transistor by Thermal Treatment**
Woo-Byoung Kim¹, Dong Keun Lee², Sang Ouk Ryu¹
¹Dankook University, ²Korea Advanced Nano Fab Center

TF-2990 Crystal Structure Change of Epitaxial Bismuth Iron Oxides Thin Film with a Composition Limit Grown by Pulsed Laser Deposition

Joong-Hee Nam¹, Hans Christen², Young Hun Jeong¹, Ji Sun Yun¹, Jeong Ho Cho¹

¹Korean Institute of Ceramic Engineering and Technology, ²Oak Ridge National Laboratory

TF-2993 Organic Thin Film Transistor based Non-volatile Memory Device with Plasma Polymerized Polymer Electret as Memory Layer

Hee-Sung Kim¹, Boong-Joo Lee², Shizuyasu Ochiai³, Paik-Kyun Shin¹

¹Inha University, ²Namseoul University, ³Aichi Institute of Technology

TF-3006 Optimal Processing of AZO Films by the Sputtering Method

Joongwon Kim, Abhishek Sharma, Sang-Im Yoo

Seoul National University

Flexible and Printable Electronic Materials and Devices (FM)

Oral Presentation

Nov. 13, 2013 (Wed.)

FM-1 (Flexible and Printable Electronic Materials and Devices 1)

304

Chair : Prof. Yong-Young Noh (Dongguk University)

09:00-10:15

FM-4392 Excited State Charge Transfer Complex: from Its Nature to Application

09:00-09:30 Young-Seo Park, Sunghun Lee, Won-Ik Jeong, Kwon-Hyeon Kim, Jang-Joo Kim

Invited Speech *Seoul National University*

FM-2405 Organic Light Emitting Diodes based on Planar and Fiber Shaped Textile Substrates

09:30-10:00 Kyung Cheol Choi, Woohyun Kim, Seonil Kwon

Invited Speech *KAIST*

FM-1335 Transparent Ultrathin Silver Oxide Electrodes for Flexible Organic Solar Cells

10:00-10:15 Jungheum Yun, Myung-kwan Song, Wei Wang, Gun-Hwan Lee

Korea Institute of Materials Science

Nov. 13, 2013 (Wed.)

FM-2 (Flexible and Printable Electronic Materials and Devices 2)

304

Chair : Prof. Maria Antonietta Loi (University of Groningen)

13:00-14:30

FM-4423 Solvent-free, Jet-on-demand Printing of Organic Materials: Digital-mode Organic Vapor-jet Printing

13:00-13:30

Invited Speech Seunghyup Yoo, Jungmin Choi

KAIST

FM-0535 Light Extraction via Nano-structure and High Refractive Index Layer in OLED

13:30-14:00 Doo-Hee Cho, Jin-Wook Shin, Seung Koo Park, Nam Sung Cho, Chul Woong Joo, Joohyun Hwang,

Invited Speech Jonghee Lee, Jaehyun Moon, Jin Woo Huh, Hye Yong Chu, Jeong-Ik Lee

ETRI

FM-2560 Micropattern Fabrication onto Transparent Polyimide Surface using Hot Embossing and Transfer Printing Techniques

14:00-14:15

Masahiro Satano, Satoshi Takamiya, Hirotaka Maenosono, Yasushiro Nishioka

Nihon University

FM-3489 Fracture Behaviors of Cu Films Screen-Printed on Elastomeric Substrates

14:15-14:30

Minkwan Koh, Kwang-Seok Kim, Bum-Geun Park, Kwang-Ho Jung, Seung-Boo Jung

Sungkyunkwan University

FM
Oral

Nov. 13, 2013 (Wed.)

FM-3 (Flexible and Printable Electronic Materials and Devices 3)

304

Chair : Dr. Mario Caironi (Italian Institute of Technology)

15:00-16:30

FM-2929 Light-emitting Polymer/Carbon Nanotube Hybrid Field-effect Transistors - below and above the Percolation Limit

15:00-15:30

Invited Speech

Jana Zaumseil

*Friedrich-Alexander-Universität Erlangen-Nürnberg***FM-4453 High on/off Ratio and Mobility Solution Processable Carbon Nanotubes Transistors**

15:30-16:00

Maria A. Loi

Invited Speech

*University of Groningen***FM-1742 2D and 3D Graphene-based NO₂ Chemical Sensors on Paper Substrates**

16:00-16:15

Gwangseok Yang, Chongmin Lee, Hyunik Park, Jihyun Kim

*Korea University***FM-3687 Electric Field-assisted Positioning of Chemical-vapor-deposited Graphene on Plastic Substrate**

16:15-16:30

Sooyeoun Oh¹, Hyunik Park¹, Jiwan Kim², Min Suk Oh², Jihyun Kim¹¹*Korea University*, ²*Korea Electronics Technology Institute*FM
Oral

Nov. 14, 2013 (Thu.)

FM-4 (Flexible and Printable Electronic Materials and Devices 4)

304

Chairs : Prof. Taishi Takenobu (Waseda University)

09:00-10:15

Dr. Doo-Hee Cho (Electronics and Telecommunications Research Institute)

FM-4457 Direct-written Organic Photodetectors and Field-effect Transistors for Large-area Plastic Imagers

09:00-09:30

Invited Speech

Mario Caironi

*Istituto Italiano di Tecnologia***FM-4556 Devices on Inch-size Solution-processed Single-crystalline Films of High-mobility Organic Semiconductors**

09:30-10:00

Invited Speech

Jun Takeya

*University of Tokyo***FM-1609 Solution Processed Zirconia Dielectric for Low Temperature Device Electronics using in situ Exothermic Reaction**

10:00-10:15

Musarrat Hasan, Seung Won You, Manh Cuong Nguyen, Yoon Seok Jeon, Duc Tai Tong, Rino Choi

Inha University

Nov. 14, 2013 (Thu.)

FM-5 (Flexible and Printable Electronic Materials and Devices 5)

304

Chair : Dr. ByoungGon Yu (Electronics and Telecommunications Research Institute)

13:00-14:00

FM-1373 Flexible, Printed, and Stretchable Carbon-Nanotube Transistors

13:00-13:30 Taishi Takenobu

Invited Speech *Waseda University*

FM-4094 Synthesis of Graphene through Microwave-assisted Exfoliation

13:30-13:45 Jaehee Lee¹, Gi-Wan Hwang², Tran Nam Trung¹, Eui-Tae Kim¹

¹Chungnam National University, ²ABC Nanotech Co. Ltd

FM-3795 Morphology-dependent Mechanical Properties of Complex Interfaces in Multilayered Nanofilms

13:45-14:00

Youngho Park, Ji-Eun Choi, Sangil Hyun, Eunhae Koo

Korea Institute of Ceramic Engineering & Technology

FM
Oral

Nov. 13, 2013 (Wed.)

FM-1 (Flexible and Printable Electronic Materials and Devices 1)

Conference Room Lobby

Chair : Prof. Seunghyup Yoo (Korea Advanced Institute of Science and Technology)

16:30-18:00

FM-2686 Non-overlapping Single Layer of Reduced Graphene Oxide Sheets for Flexible Transparent Electrodes

Hyeri Kim¹, YoungRae Jang¹, Jeseung Yoo², Young-Soo Seo², Soon-Dong Park¹, Chan-Joong Kim¹, Jaseung Koo¹

¹KAERI(Korea Atomic Energy Research Institute), ²Sejong University

FM-2737 Improvement of Solution Processed Metal Oxide Thin Film Transistor by Self-assembled Monolayers

Mijung Lee, Jae Won Hwang, Jun Hyeock Lee, Jinwoo Park

Kookmin University

FM-2768 Effect of Electrode Materials and Switching Direction in Graphene Oxide Resistive Switching Memory Devices

Young Dae Seo, Mu Seok Go, Mi Jung Lee

Kookmin University

FM-2791 Conducting Properties of Cotton Yarn Coated with Reduced Graphene Oxide for Electronic Textiles

Jaeyong Kim, Jeong In Han

Dongguk University

FM-2802 Electrohydrodynamically Driven Printing of Copper Ion based Solution

Youngsup Song, Sung Mook Choi, Joo Yul Lee, Kyu Hwan Lee, Dong Chan Lim, Jae-Hong Lim

Korea Institute of Materials Science

FM-2817 Producing of Flexible and Patterned PI/FTO Film

Da-Hye Kim¹, Seung Hun Huh¹, Chul Kyu Song², Sung Hwan Park², Bo Min Kim², Doh-Hyung Ryu³, Jong Hak Kim⁴

¹KICET, ²Solar Ceramic Co. Ltd., ³Seoul National University of Science and Technology, ⁴Yonsei University

FM-2913 Mechanical Integrity of Flexible Transparent Graphene Electrode for Flexible Touch Sensor

Kyoungtae Eun¹, Se-In Oh¹, Min Yang², Sung-Hoon Choa¹

¹Seoul National University of Science and Technology, ²Kookmin University

FM-2946 Synthesis and Characterization of Blue Glazed Ceramic Ink for Ink-jet Printing

Jin-Ho Kim, Kyu-Sung Han, Ki-Chan Lee, Kwang-Taek Hwang, Woo-Suk Cho

Korea Institute of Ceramic Engineering and Technology

- FM-2953 Synthesis of (Ni,Co,Mg)Al₂O₄ Ceramic Nano Pigment by Polymerized Complex Method**
Kyu-Sung Han, Jin-Ho Kim, Bo-Ram Son, Woo-Suk Cho
Korea Institute of Ceramic Engineering and Technology
- FM-2996 Application of Photonic Crystals to Organic Single Crystals**
Bo-Lun Shih¹, Kenichi Maruyama¹, Jinpeng Li¹, Masaki Imakawa¹, Wataru Takahashi¹, Shu Hotta², Taishi Takenobu¹
¹Waseda University, ²Kyoto Institute Technology
- FM-3331 Characteristics of ITO Ink Coated Layer on Flexible Glass Substrate**
Sung-Jei Hong¹, Sun Young Jee¹, Min-Sun Kim¹, Jong-Woong Kim¹, Young-Chul Lee², Seung-Boo Jung², Jeong In Han³
¹Korea Electronics Technology Institute, ²Sungkyunkwan University, ³Dongguk University
- FM-3359 Flexible Metal Grids Embedded Transparent Conductive Electrode for Organic Electronics**
Sunghoon Jung, Do-Geun Kim
Korea Insitue of Materials Science
- FM-3421 Electrical and Optical Properties of Antimony Doped Tin Oxide/Ag-grid Films for Transparent Conducting Electrodes by Electrohydrodynamic-jet Printing**
Jung-hun Kim¹, Hong-Jin Kim¹, Sung-Churl Choi², Chang-Yeoul Kim¹
¹Korea Institute of Ceramic Engineering and Technology, ²Hanyang University
- FM-3476 Fabrication of Light Guide Plates with Nano-patterned Organic Films by using Nano-imprint Lithography**
Se Yong Park, Hee Chul Lee
Korea Polytechnic University
- FM-3641 Inkjet Process Optimization for Zinc-Tin Oxide Thin-Film Transistors**
Seung Hyun Lee, Woon-Seop Choi
Hoseo Univ.
- FM-3718 Polyimide Stiff Islands on Polydimethylsiloxane Elastomer for Stretchable Electronics**
Soon-Won Jung¹, Jeong Seon Choi¹, Chan Woo Park¹, Bock Soon Na¹, Sang Chul Lim¹, Sang Seok Lee¹, Hye Yong Chu¹, Sung-Min Yoon², Jae Bon Koo¹
¹ETRI, ²Kyung Hee University
- FM-3767 Transport Property of Water Vapor in Nanostructured Barrier Films**
Youngho Park, Sangil Hyun, Ji-Eun Choi, Eunhae Koo
Korea Institute of Ceramic Engineering & Technology
- FM-3801 Extended Thermal Stability in Doped Graphene using Diffusion Barrier Layer**
Ki Chang Kwon, Soo Young Kim
Chung-Ang University
- FM-3802 N-type Organic Thin-Film Transistors Fabricated on Polydimethylsiloxane Elastomers**
Jeong Seon Choi¹, Soon-Won Jung¹, Chan Woo Park¹, Bock Soon Na¹, Sang Chul Lim¹, Sang Seok Lee¹, Hye Yong Chu¹, Sung-Min Yoon², Jae Bon Koo¹
¹ETRI, ²Kyung Hee University

FM-3898 Electroluminescent Properties of Hybrid Light-Emitting Diodes Consisting of Nanoparticles-Conducting Polymer Composites as Emissive Layers

Kiyeol Kwak, Kyoungah Cho, Hohyeon Ryu, Sangsig Kim
Korea University

FM-4015 Fabrication of Polyimide-based Stretchable and Foldable Substrates for Stretchable Electronics

Bock Soon Na, Chan Woo Park, Soon-Won Jung, Sang Chul Lim, Sang Seok Lee, Hye Yong Chu, Jae Bon Koo
ETRI

FM-4350 Electrochromic Nanowires for Flexible Display

Tae-Youb Kim, Seong M. Cho, Chil Seong Ah, Hojun Ryu
Electronics and Telecommunications Research Institute

FM-4404 A Facile Approach to Improve Light Extraction for Organic Light Emitting Devices (OLEDs) via Photo-induced Azobenzene Surface Relief Gratings (SRGs)

Juhwan Kim¹, Hong-Ju Park², Yong-Young Noh³, Dong-Yu Kim¹
¹Gwangju Institute of Science and Technology (GIST), ²Samyang Corporation EMS BU, ³Dongguk University

Nov. 14, 2013 (Thu.)

FM-2 (Flexible and Printable Electronic Materials and Devices 2)

Conference Room Lobby

Chair : Dr. Mario Caironi (Italian Institute of Technology)

16:30-18:00

FM-0284 Electro-optic Characteristics of Polymer Dispersed Liquid Crystal Films for Flexible Display according to Driving Conditions

Kee-Jeong Yang
DGIST

FM-0442 Improvement of Interfacial Stability of X-ray Film for the Application of Flexible Medical Imaging Sensor

SungJin Noh¹, JungWook Shin¹, SungHun Kim¹, YoungKyu Lee¹, GyuSeok Cho¹, SungKwang Park², SangHee Nam¹
¹Inje University, ²Busan Paik Hospital

FM-0560 Effect of Sintering Temperatures on Electrical and Optical Properties of FC-LED Package Fabricated with Direct Printing Method

Young-Chul Lee, Jae-Ha Kim, Ji-Na Choi, Seung-boo Jung
Sungkyunkwan University

FM-0962 Enhanced Performances in Inverted Bottom-emission Organic Light-emitting Diodes with KBH4-doped Electron Injection Layer

Hyunkoo Lee¹, Yongwon Kwon², Heeyoung Jung², Chi-Sun Hwang¹, Changhee Lee²
¹Electronics and Telecommunications Research Institute, ²Seoul National University

- FM-1131 Bias Stability of Zinc-oxide Thin-film Transistors Prepared by Electrohydrodynamic Spraying Technique**
Young-Jin Kwack, Woon-Seop Choi
Hoseo University
- FM-1206 An Experimental Study for Applied All Printing Process and Performance Analysis on the Inverted Photovoltaic Cells**
Sungwoo Bae¹, Sun-Woo Kwak², Taik-Min Lee², Inyoung Kim², Yong-Young Noh¹
¹Dongguk University, ²Korea Institute of Machinery & Materials
- FM-1321 Interface Engineering between CdSe/ZnS Quantum Dots and ZnO Nanoparticles for Solution Processible Display**
Byoung-Ho Kang¹, Han Jae Shin¹, Dong Ic Lee¹, Chang-Taeg Seo¹, Sung-Woo Lim², Sang-Won Lee², Shin-Won Kang²
¹GUMI Electronics & Information Technology Research Institute, ²Kyungpook National University
- FM-1507 Piezoelectric Characteristics of PZT Thick Films on the Flexible Substrates by Aerosol Deposition for Energy Harvesters**
Dong-Jin Shin, Jung-Hyuk Koh
Kwangwon University
- FM-1544 Low-Temperature Processible Conductive Pastes for Printed Electronics**
Ho Sun Lim, Seung-Nam Kim, Seong-Dae Park
Korea Electronics Technology Institute
- FM-1546 Fabrication of Functional Optical Layer based on a Nano-particle Composite for Highly Efficient Organic Light-emitting Devices**
Chur-Hyun Shin, Eul Yong Shin, Jae-Hyun Lee, Yoonseuk Choi
Hanbat National University
- FM-1550 Molecular Ordering of Organic Semiconductor Layer with Various Surface Alignment Techniques**
Eul-Yong Shin¹, Chur-Hyun Shin¹, Jin-Hyuk Bae², Yoonseuk Choi¹
¹Hanbat National University, ²Kyungpook National University
- FM-1555 Photoinitiator-free Photosensitive Polyimides as Gate Insulators for Pentacene Thin-film Transistors**
Hye Jung Suk¹, Hoon Joo Yang², Mi Hye Yi¹, Taek Ahn²
¹Korea Research Institute of Chemical Technology, ²Kyungsung University
- FM-1581 Thermally Crosslinked Polyvinyl Alcohol (PVA) for the Passivation Layer of Pentacene Thin-film Transistors**
Hye Jung Suk¹, Taekjun Kim², Mi Hye Yi¹, Taek Ahn²
¹Korea Research Institute of Chemical Technology, ²Kyungsung University
- FM-1676 Cs2CO3 Doped-organic/Ag Thin Film as Architecture for Transparent Electrode Applications**
Jaehyun Moon, Jin Woo Huh, Seung Koo Park, Jonghee Lee, Doo-Hee Cho, Joohyun Hwang, Jin-Wook Shin, Jun-Han Han, Chul Woong Joo, Nam Sung Cho, Keunsoo Lee, Byung-Gon Yu, Jeong-Ik Lee
Electronics and Telecommunications Research Inst. (ETRI)

FM-1717 Carrier Type Conversion from Ambipolar to Unipolar Transport by Doping on Ambipolar Top-gated PCBM OFETsDongyoon Khim¹, Dong-Yu Kim¹, Yong-Young Noh²¹Gwangju Institute of Science and Technology, ²Dongguk University**FM-1825 Microstructural Analysis of Front Contact Interface in Silicon Solar Cells Deposited by Inkjet Printing**Seong Gu Kang¹, Chang Wan Lee¹, Yoon Jang Chung¹, Seok Jong Jeong¹, Taek-Mo Chung¹, Chang-Gyoun Kim¹, Donghwan Kim², Young Kuk Lee¹¹Korea Research Institute of Chemical Technology, ²Korea University**FM-1845 Improvement of Joint Strength with Hybrid Cu Nanopaste for Electronic Packaging System**

Kwang-Ho Jung, Kwang-Seok Kim, Bum-Geun Park, Seung-Boo Jung

*Sungkyunkwan University***FM-1969 Electrical Characteristic and PF Emission of Semiconductor using Carbon Doped Silicon Oxide**

Teresa Oh

*Cheongju University***FM-2256 The Properties of ITO Thin Films on Plastic Substrates via Ionized Physical Vapor Deposition (IPVD)**Kyung-Hyun Kim¹, Chan-Hwa Hong¹, Jae-Heon Shin¹, Nae-Man Park¹, Chang-Woo Song¹, Seung-Yong Pyun², Jong-Sun Yon², Woo-Seok Cheong¹¹ETRI, ²SKC-Haas**FM-2311 Full Color Guest-Host Liquid Crystal Displays on Plastic Substrate**

Gi Heon Kim, Won-Jae Lee, Hojun Ryu

*ETRI***FM-2420 Effect of a Top Insulator on Turn-On Voltage in Organic Field-Effect Transistors with a Multilayer Insulator**Min-Hoi Kim¹, Jae-Hyun Kim², Jin-Hyuk Kwon², Jin-Hyuk Bae²¹Seoul National University, ²Kyungpook National University**FM-2524 Preparation of Invisible Metal-grid Transparent Electrodes by Electrohydrodynamic Printing and Its Application to Optoelectronic Devices**

Sujay Kumar, Youngwoo Lee, Chanho Yang, Jongmyung Cha, Jihoon Kim

*Kongju National University***FM-2624 Photonic Sintering Characteristics of Silver Paste on Polymer Substrate**

Jimi Eom, Sung-Jei Hong, Min-Gi Kwak, Jong-Woong Kim

*Korea Electronics Technology Institute***FM-2724 Random Polymeric Micro Hole Array for Organic Light Emitting Diode Light Extraction**Keunsoo Lee¹, Jaehyun Moon¹, Hye Yong Chu¹, Jeong-Ik Lee¹, Byeong-Kwon Ju²¹Electronics and Telecommunications Research Institute, ²Korea University

Oxide Semiconductors: Fundamentals and Advanced Applications (OS)

Oral Presentation

Nov. 13, 2013 (Wed.)

OS-1 (Oxide Semiconductors: Fundamentals and Advanced Applications 1)

Halla A

Chairs : Prof. Sang Yeol Lee (Cheongju University)

14:00-15:00

Prof. George Kiriakidis (University of Crete and FORTH)

OS-2889 Low-temperature Fabricated Metal-oxide Thin-film-devices using Photochemical Activations

14:00-14:30

Invited Speech

Sungkyu Park

Chung-Ang University

OS-4302 Photocatalytic Wastewater Treatment by Titanium Dioxide Nanocatalysts Constructed from Natural Minerals

14:30-14:45

Patiya Kemacheevakul¹, Jerawut Kaewsaene¹, Sorapong Pavasupree², Surawut Chuangchote¹

¹King Mongkut's University of Technology Thonburi, ²Rajamangala University of Technology Thanyaburi

OS-0614 Growth of WO₃ Nanorods on ITO Substrate by Seeded Growth Hydrothermal Reaction

14:45-15:00

Chai Yan Ng, Khairunisak Abdul Razak, Zainovia Lockman

Universiti Sains Malaysia

OS
Oral

Nov. 13, 2013 (Wed.)

OS-2 (Oxide Semiconductors: Fundamentals and Advanced Applications 2)

Halla A

Chair : Prof. John F. Wager (Oregon State University)

15:00-17:00

OS-1145 High Performance of Amorphous SiZnSnO Thin-Film Transistor with Novel Transistor Structure

15:00-15:30

Invited Speech

Sang Yeol Lee

Cheongju University

OS-0949 Metal Oxide Semiconductors as Visible Light Photocatalysts

15:30-16:00

George Kiriakidis^{1,2}, Vasilis Binas²

Invited Speech

¹Univ. of Crete, ²IESL/FORTH

OS-4376 Highly Sensitive Stretchable Transparent Piezoelectric Nanogenerators with Reliable Power-Generating Performance

16:00-16:30

Invited Speech

Sang-Woo Kim

Sungkyunkwan University

OS-2649 Fabrication and Electrical Characterization of p-type Oxide Thin-Film Transistors
 16:30-16:45 Hyuck-In Kwon¹, Chan-Yong Jeong¹, Ick-Joon Park¹, Myeonghun U¹, Sang-Hun Song¹, In-Tak Cho²,
 Jong-Ho Lee²
¹Chung-Ang University, ²Seoul National University

OS-2296 III-V Nanowire Array on Silicon for Energy Applications
 16:45-17:00 Jae Cheol Shin¹, Won Jun Choi², Kyoung Jin Choi³
¹Korea Photonics Technology Institute, ²Korea Institute of Science and Technology, ³Ulsan National
 Institute of Science and Technology

Nov. 14, 2013 (Thu.)

OS-3 (Oxide Semiconductors: Fundamentals and Advanced Applications 3)

Halla A

Chairs : Prof. Kee Joo Chang (Korea Advanced Institute of Science and Technology)
 Prof. Jun Seop Kwak (Suncheon National University)

13:00-14:45

**OS-0765 Understanding on the Photo-bias Instability of Metal Oxide Thin Film Transistors for Next
 Generation Active Matrix Display**
 13:00-13:30 Jae Kyeong Jeong
 Invited Speech Inha University

OS-4321 Double-Face Roles of Hydrogen in Amorphous In-Ga-Zn-O
 13:30-14:00 Toshio Kamiya, Hideya Kumomi, Hideo Hosono
 Invited Speech Tokyo Institute of Technology

OS-3084 Brush Painted Ti-doped In₂O₃ Electrode for Organic Solar Cells
 14:00-14:15 Jin-A Jeong, Han-Ki Kim
 Kyung Hee University

**OS-1817 Characterizations on the Nonvolatile Memory Behaviors of the All-Oxides Charge-Trap-
 Type Transparent Memory Transistors**
 14:15-14:30 Jun-Yong Bak, Sung-Min Yoon
 Kyung Hee University

OS-4395 A Raman Spectroscopic Probe of the Magnetic Domain Structure of NiOx Nanopowders
 14:30-14:45 Harneet Kaur, Shyama Rath
 University of Delhi

Nov. 14, 2013 (Thu.)

OS-4 (Oxide Semiconductors: Fundamentals and Advanced Applications 4)

Halla A

Chair : Prof. Toshio Kamiya (Tokyo Institute of Technology)

15:00-16:45

**OS-0336 Effects of O-vacancy Defects, Hydrogenation, Thermal Annealing, and Electric Fields on
 the Stability of Oxide-based Thin-film Transistors**
 15:00-15:30 Hyeon-Kyun Noh¹, Young Jun Oh², Kee Joo Chang²
 Invited Speech ¹Samsung Electronics Co., ²Korea Advanced Institute of Science and Technology

OS-4405 First-principles Electronic Structure Calculations of Hydrogen in InGaZnO

15:30-16:00 Maengsuk Kim, Chul-Hong Park

Invited Speech Pusan National University

OS-2377 Strain Tunable Spin Orbit Interaction Dominated Electron Transport in Strongly Correlated Oxide SrIrO₃

16:00-16:15

Lunyong Zhang, Yanbin Chen, Yanfeng Chen

Nanjing University

OS-0734 Investigation on the Performance of UV Sensor by Printing ITO Nanocrystals

16:15-16:30

Jieun Koo, Sangtae Lee, Jiho Chang

National Korea Maritime University

OS-0929 Sonochemical Synthesis and Characterizations of F-Sb Codoped SnO₂ Nanoparticles

16:30-16:45

Wisanu Pecharapa¹, Russameeruk Noonuruk¹, Wanichaya Mekprasart¹, Naratip Vittayakorn¹, Jaran Sriharathikhun²

¹King Mongkut's Institute of Technology Ladkrabang, ²National Electronics and Computer Technology Center, National Science and Technology Development Agency

OS
Oral

Nov. 13, 2013 (Wed.)

OS-1 (Oxide Semiconductors: Fundamentals and Advanced Applications 1)

Conference Room Lobby

Chairs : Prof. Joon Seop Kwak (Suncheon National University)

16:30-18:00

Dr. Jang-Hee Yoon (Korea Basic Science Institute)

OS-2243 Radiation Pattern Analysis of the Vertical Light-emitting Diodes with SiO₂ Nano-extractor

Hyokun Son¹, June Key Lee¹, Jong Hyeob Baek², Hee-Sung Ku², Nam Hwang², Sang-Mook Kim²

¹Chonnam National University, ²Korea Photonics Technology Institute (KOPTI)

OS-2277 Fabrication of Oxide TFTs using Chicken Albumen as Gate Dielectric on Paper Substrate

Da-Bin Jeon, Jun-Yong Bak, Sung-Min Yoon

Kyung-Hee University

OS-2282 Fabrication and Characterization of Oxide Semiconductor Thin Film Transistors using Solution-processed Aluminum-zinc-tin Oxide Active Channel

Kyeong-Ah Kim, Jun-Yong Bak, Sung-Min Yoon

Kyung-Hee University

OS-2400 Enhanced Optical Output Performance in InGaN/GaN Light-emitting Diode Embedded with SiO₂ Nanoparticles

Dae-Woo Jeon¹, Lee-Woon Jang¹, Han-Su Cho¹, Kyeong-Seob Kwon¹, Myeong-Ji Dong¹, Jin-Woo Ju², Tae-Hoon Chung², Jong Hyeob Baek², In-Hwan Lee¹

¹Chonbuk National Univ., ²Korea Photonics Technology Institute

OS-2464 High Sensitive Graphene-based Sensor for Immunoassay

Yong Kyoung Yoo¹, Jeong Hoon Lee¹, Kyo Seon Hwang²

¹Kwangwoon University, ²Korea Institute of Science and Technology (KIST)

OS-2468 Development of ITO & OMO Electrodes for Large-sized Touch Screen Panels

Woo-Seok Cheong, Chan-Hwa Hong, Kyung-Hyun Kim, Nae-Man Park, Chang-Woo Song, Jae-Heon Shin
ETRI

OS-2473 Effects of Channel Width on the Electrical Characteristics of InZnO Thin-Film Transistors under High Drain Voltage

Chang-Woo Song¹, Jae-Heon Shin¹, Nae-Man Park¹, Kyung-Hyun Kim¹, Chan-Hwa Hong¹, Hyuck-In Kwon², Woo-Seok Cheong¹

¹Electronics and Telecommunications Research Institute, ²Chung-Ang University

OS-2479 Hybrid MIS AlGaIn/GaN HFET with Atomic-layer-deposited Al₂O₃ and Sputtered HfO₂

C.G. Song, S.K. Oh, J.S. Kwak

Suncheon National University

OS-2661 Optical and Electrical Properties of OLED Lighting Device on Silver Nanowires TCO

Dong Chan Shin, Kyung-Mo Yeon, Yong-Taeg Oh

Chosun University

- OS-2670 Substrate Temperature Dependence of the Electrical and Optical Properties of TiInZnO/
Ag/TiInZnO Multilayer Films Deposited by RF/DC Magnetron Co-sputtering**
Gi-Seok Heo¹, Yu-Ri Lee², Young-Baek Kim¹, Dong-Chan Shin²
¹Korea Institute of Industrial Technology, ²Chosun University
- OS-2672 Growth Mechanism of ZnO Nano-structure by PLD**
Se-Yun Kim, Joon-Hyung Lee, Jeong-Joo Kim, Young-Woo Heo
Kyungpook National University
- OS-2675 Application of TiInZnO/Ag/TiInZnO Multilayer Anodes for Dye-Sensitized Solar Cells**
Gi-Seok Heo¹, Yu-Ri Lee², Young-Baek Kim¹, Dong-Chan Shin²
¹Korea Institute of Industrial Technology, ²Chosun University
- OS-2747 Combinatorial Synthesis of Ta-In-Zn-O Quarternary TCO Thin Films and Its Characteristics**
Jae-Cheol Park, Ho-Sung Kim, Tae-Won Kim
Korea Institute of Industrial Technology
- OS-2814 Effect of Excess Zn Addition on Electrical and Optical Characteristics of In₂O₃-SnO₂-ZnO
(ITZO) Thin Films Prepared by RF-magnetron Sputtering**
Jung-A Lee¹, Joon-Hyung Lee¹, Young-Woo Heo¹, Hee Young Lee², Jeong-Joo Kim¹
¹Kyungpook National University, ²Yeungnam University
- OS-2869 Dielectric and Impedance Spectroscopy of Alkaline Earth Stannates**
Robertas Grigalaitis, Maksimv Ivanov, Ringaile Katiliute, Povilas Seibutas, Juras Banys, Andrius Stanulis,
Aivaras Kareiva
Vilnius University
- OS-2874 Direct Nano- and Micro Patterning of Antimony-doped Tin Oxide using Antimony-doped
Tin Oxide Nano-particle Dispersed Resin**
Hak-Jong Choi, Ju-Hyeon Shin, Je-Hong Choi, Yang-Doo Kim, Soyoung Choo, Sang-Woo Ryu, Heon Lee
Korea University
- OS-2958 Fabrication of Al-doped Sn-Zn-O Semiconducting Thin Films by RF Magnetron Sputtering**
Abhishek Kumar Sharma, Joongwon Kim, Sang-Im Yoo
Seoul National University
- OS-3039 Effect of Post Annealing Process on the Characteristics of Flexible and Transparent ITO
Film Grown by Roll-to-Roll Sputtering for Touch Panel Applications**
Han-Ki Kim, Dong-Ju Kim
Kyung Hee University
- OS-3144 Enhanced Charge Storage Performance in AlTi₄₀x/Al₂O₃ Multilayer Charge Trapping
Memory Devices**
Changjie Gong, Bo Xu, Yidong Xia, Jiang Yin, Zhiguo Liu
Nanjing University

OS-3152 Effect of Electron Beam Irradiation on the Bias Stability of a-IGZO Thin-film Transistors

Young Joon Yoon, Sung Hwan Cho, Chang-Yeoul Kim, Hyo Tae Kim
Korea Institute of Ceramic Engineering and Technology

OS-3244 Electrochemical Characterization of ITiO Films for DSSC

Yu-Jung Cha, Na-Hyun Kwon, Jang-Hee Yoon
Korea Basic Science Institute

OS-3248 The Characteristics according to Amount of Gold Nanoparticles on Boron-Doped Diamond Electrodes

Yu-Jung Cha, Song-Yi Han, Jang-Hee Yoon
Korea Basic Science Institute

OS-3310 Preparation and Characterization of the Tunnel Junctions using AZO(ZnO: Al 2wt.%) Thin Films

Su-Wung Baek^{1,2}, Kwang-Il Choi¹, Woo-hyoung Lee¹, Dong-Cheon Kang¹, Cheolhyun Lim¹, Sukho Lee¹, O-Bong Yang²
¹Southwestern Research Institute of Green Energy Technology, ²Chonbuk National University

OS-3321 Nano-sized Patterned Protection Glass with Highly Transmittance and Self-cleaning Effect for Photovoltaic Systems

Yang-Doo Kim, Ju-Hyeon Shin, Joong Yeon Cho, Heon Lee
Korea University

OS-3363 The Effect of Temperature on the Fluorescence of the Mn Doped ZnO Quantum Dots Derived by Sol-gel Method

InYea Kim, Young Jin Do, Jongsung Kim
Gachon University

OS-3371 O2 Plasma Treatments on the TiO2 Photo-electrodes of Dye-sensitized Solar Cells based on Natural Photosensitizers

Dong-Cheon Kang, Su-Wung Baek, Kwang-Il Choi, Cheol-Hyun Lim, Woo-hyoung Lee, Suk-Ho Lee
Southwestern Research Institute of Green Energy Technology

OS-3384 Effect of TMAH Treatment on the Electrical Characteristics of Ni/Au/Al2O3/GaN MIS Schottky Structures

M. Siva Pratap Reddy¹, Jihwan Kim¹, Dae-Kuen Shin¹, Ki-Hong Kim¹, Jung-Hee Lee², Ja-Soon Jang¹, V. Rajagopal Reddy²
¹Yeungnam University, ²Kyungpook National University

OS-3391 Highly Sensitive ZnO Microwire based UV Photodetector

Rajneesh Mohan, Balasubramaniam Saravanakumar, Sang Jae Kim
Jeju National University

OS-3456 Mechanical Characteristics of the a-IGZO and Graphene based Flexible Display under the Influence of External Forces

Hak-Jun Kim, Hyeon-Seok Seo, Youn-Jea Kim
Sungkyunkwan University

- OS-3850 Preparation of La₂NiO₄ Thin Films and Its p-type Electrical Characteristics**
Dang-Hoang Hop, Jung-A Lee, Young-Woo Heo, Jeong-Joo Kim, Joon-Hyung Lee
Kyungpook National University
- OS-4031 Characteristics of Si-Zn-Sn-O Thin Film Transistor depending on Annealing Conditions**
Sang Min Han, Sang Yeol Lee
Cheongju University
- OS-4072 Effect of Thickness of Ag on Optical Properties of Low Emissive SiZO/Ag/SiZO Multilayer Structure**
Moo Yeol Bae, Sang Yeol Lee
Cheongju University
- OS-4140 Effect of ZnO Nanorods Thickness on Efficient Electrochemical Luminescence Cells Fabrication**
Hyung Seok Oh¹, Min Ki Choi¹, Youl Moon Sung¹, Min Woo Park¹, Hoon Kyu Shin²
¹*Kyungsung University*, ²*National Center for Nanomaterials Technology (NCNT)*
- OS-4163 Synthesis and Characterization of Sulfur-Mesoporous Carbon and Conducting Polymer-Organosulfur Composite for Lithium/Sulfur Batteries**
Eun Hyuk Chung¹, Seong Mi Yu¹, Jeong Hee Choi², Chil-Hoon Doh², Jong Sung Jin¹, Euh Duck Jeong¹
¹*Korea Basic Science Institute*, ²*Korea Electrotechnology Research Institute*
- OS-4295 A New Gate Driver Circuit Scheme for Long Operation-time using Double-gate Oxide TFTs**
Jae-Eun Pi, Chi-Sun Hwang, Sang-Hee Ko Park, Jong-Woo Kim, Oh Sang Kwon, Eun Suk Park, In-Yong Eom, Heeok Kim
Electronics and Telecommunications Research Institute
- OS-4319 Effect of the Concentration of Oxygen Sources on the Lattice Constant of Electrochemically Grown Cu₂O Thin Films**
Shunsuke Sato, Atsushi Ashida, Takeshi Yoshimura, Norifumi Fujimura
Osaka Prefecture University
- OS-4323 Laser Annealing of Solution Processed Oxide TFT**
J.-H. Yang¹, C.-S. Hwang¹, J.-H. Kwon², Y.-J. Chang³, H.-J. Kim³, J. Park¹
¹*ETRI*, ²*Univ. of Chicago*, ³*Univ. of Seoul*
- OS-4341 High Performance InTiZnO Thin Film Transistors Fabricated by Pulsed Laser Deposition**
F.K. Shan, B.C. Shin
Donggeui University
- OS-4344 High Performance InGaZnO Thin-film Transistors with Al₂O₃-Ta₂O₅ Dielectric Stacks Fabricated by Pulsed Laser Deposition**
F.K. Shan, B.C. Shin, W.J. Lee
Donggeui University

OS-4417 Effects of Ga Doping on Structural, Optical and Electrical Properties of ZnMgBeO UV-range Transparent Conducting Thin Films

Yun-Sik Kim, Hoang Ba Cuong, Byung-Teak Lee
Chonnam National University

Nov. 14, 2013 (Thu.)

OS-2 (Oxide Semiconductors: Fundamentals and Advanced Applications 2)

Conference Room Lobby

Chairs : Prof. Sang Yeol Lee (Cheongju University)

16:30-18:00

Dr. Jang-Hee Yoon (Korea Basic Science Institute)

OS-0230 Highly Stable Amorphous Zinc-tin Oxide Thin Film Transistors by Hf Doping

Dongsuk Han, Jaehyung Park, Yujin Kang, Jongwan Park
Hanyang University

OS-0326 Improvement of (11-22) Semipolar GaN Overgrown on Nano Structure using SiO₂ Dots

Dae-Woo Jeon¹, Jae-Chul Song¹, Tae Hoon Jeong¹, Tak Jeong¹, Sang-Heung Lee¹, Jong Hyeob Baek¹, In-Hwan Lee², Jin-Woo Ju¹
¹Korea Photonics Technology Institute, ²Chonbuk National University

OS-0410 Oxygen Effects on the Optical and Electrical Properties of Tin Oxide Films Prepared by rf Magnetron Sputtering

Tae Young Ma, Mu Hee Choi
Gyeongsang National University

OS-0757 Effects of Negative Gate-Bias Stress on the Performance of Solution-Processed Zinc Oxide Transistors

Woo-Sub Lee¹, Hyunji Shin¹, Jae Eun Hwang², Xue Zhang³, Jin-Hyuk Bae⁴, Jong Sun Choi¹, Hong Doo Kim², Jaehoon Park³
¹Hongik University, ²Kyunghee University, ³Hallym University, ⁴Kyungpook National University

OS-0809 The Characteristics of ZnO Thin Films Deposited on PES Substrate at Various Oxygen Pressure by Pulse Laser Deposition

SangHyun Kim, HyunMin Lee, NakWon Jang, HongSeung Kim, Young Yun
Korea Maritime University

OS-0836 Synthesis, Microstructure, and Electrical Properties of CuFe_{1-x}SnxO₂ Delafossite Oxide

Lerdkead Naka-in, Teerasak Kamwanna, Vittaya Amornkitbamrung
Khon Kaen University

OS-0867 Growth of p-Cu₂O with Growth Time on n-ZnO Nanorod by a Two-step Potentiostatic Method

Hyunghoon Kim, Ho Seong Lee
Kyungpook National University

OS-0967 Effect of Buffer Layer and Deposition Parameters on Thermochromic Properties of VO₂

Dimitra Vernardou¹, Dimitris Louloudakis¹, Manolis Gagaoudakis², Vicky Kampylafka³, Emanouel Spanakis², Nikos Katsarakis⁴, Manolis Koudoumas¹, Elias Aperathitis³, George Iliadis⁵, George Kiriakidis^{2,3}
¹Technological Educational Institute of Crete, ²University of Crete, ³IESL/FORTH, ⁴Technological Educational Institute of Crete / FORTH, ⁵UNIGLASS SA

OS-1016 Charge Transport at High Temperature in Solution-processed Zinc Tin Oxide Thin Film Transistor

Kyeong Min Yu¹, Jae Min Song¹, Byung Seong Bae¹, Myunghee Jung², Eui-Jung Yun¹
¹Hoseo University, ²Anyang University

OS-1064 Stabilities of a-IGZO Thin Films under Light Illumination with Various Wavelengths and Intensities

Ju-Yeon Kim, Kyeong Min Yu, So Hyun Jeong, Eui-Jung Yun, Byung Seong Bae
Hoseo Univ.

OS-1105 Improved Bias Stability of a Solution-Processed ZTO Thin-Film Transistors by using Double Active Layers

Seung Hyun Lee, Woon-Seop Choi
Hoseo Univ.

OS-1150 ZnO Nanowire based All-oxide Ultraviolet Photosensors using p-Cu₂O Layers

Ki Ryong Lee, Byung Oh Jung, Seung Ki Baek, Hyung Koun Cho
Sungkyunkwan University

OS-1195 Effect of Surface Roughness on Oxide/Metal/Oxide Multilayer Structure

Young Seon Lee, Sang Yeol Lee
Cheongju University

OS-1196 Low Resistance Mo Contacts to Amorphous Hafnium Indium Zinc Oxide

Seongjun Kim, Eunjin Jung, Munsik Oh, Young-Un Gil, Seonghoon Jeong, Gwangsun Seo, Hyunsoo Kim
Chonbuk National University

OS-1297 Enhanced Electrical Performance of Solution Processed Si-Zn-Sn-O Thin Film Transistor with Novel Structure

JunYoung Choi¹, SangSig Kim¹, SangYeol Lee²
¹Korea University, ²Cheongju University

OS-1314 Effect of Ca Addition on the Electrical Characteristics of Sol-gel Processed Zn-Sn-O Thin Film Transistor

Jeongin Jang, Ho Seong Lee
Kyungpook National University

OS-1406 The Effect of Post-Annealing Treatment on the Structural, Electrical and Optical Properties of Indium Zinc Tin Oxide (IZTO) Thin Films with Reduced Indium Content

Maryane Putri¹, Ki Hwan Kim¹, Chang Young Koo¹, Jung-A Lee², Jeong-Joo Kim², Hee Young Lee¹
¹Yeungnam University, ²Kyungpook National University

OS-1453 A Study on Reliability and Electrical Characteristics of Indium-Gallium-Zinc Oxide Thin Film Transistor

Chang-Hoon Han, Hyung-Joon Kim, Kwang-Soo Kim, Hyoung-Sun Park, Pyoung-Ho Choi, Sang-Sub Kim, Byoung-Deog Choi
Sungkyunkwan University

OS-1470 A Study on the Characteristics of MgZnO Schottky Diode by Rapid Thermal Annealing of Ag Schottky Metal

Jong Hoon Lee, Yun Been Na, Yong Rack Jung, Fan Zhang, Hong Seung Kim
Korea Maritime University

OS-1480 Enhanced Resistive Switching using Two-dimensional Electron gas (2DEG) as a Bottom Electrode

Jin Gwan Joung¹, Kwang Soo Yoo², Jin Sang Kim¹, Seung-Hyub Baek¹
¹*Korea Institute of Science and Technology (KIST)*, ²*University of Seoul*

OS-1492 Electrical Characteristics of Solution-processed ZnO TFT Device below 150°C

Jaeeun Hwang¹, Kyungmin Lee¹, Jaehoon Park², Hongdoo Kim¹
¹*Kyung Hee University*, ²*Hallym University*

OS-1636 Investigation of Amorphous Oxide Semiconductor Thin Films for Resistive Nonvolatile Memory Applications

Tae Ho Yeom¹, Jun Young Choi², Sang Yeol Lee¹
¹*Cheongju University*, ²*Korea University*

OS-1646 Manganese Oxide Nanofibers as New Oxidants in Vapor-Phase Polymerization

Tae-Sun Jun, Young Bum Jo, Yong Shin Kim
Hanyang University

OS-1697 Sputtered Ni-Al-O as p-type Sensor Material for Hydrogen and Methane

E. Gagaoudakis^{1,2}, G. Michael¹, I. Kortidis², V. Kampylafka², K. Tsagaraki², K. Moschovis^{1,2}, E. Aperathitis², E. Iliopoulos¹, G. Kiriakidis^{1,2}
¹*University of Crete*, ²*FORTH*

OS-1764 Effect of Inversion Charge Modification under Bias-temperature Stress in the Plasma-deposited SiN Films

Hyoung-Sun Park, Kyung-Su Lee, Hyun-Jin Kim, Hyung-Joon Kim, Pyeong-Ho Choi, Kwang-Soo Kim, Byoung-Deog Choi
Sungkyunkwan University

OS-1768 The Properties of AZO Film Deposited by RF Magnetron Sputtering in Ar+H₂ Gas Ambient as Functions of Substrate Temperatures

Jwayeon Kim¹, Byungjun Lee¹, Jaesung Cha¹, Hyunjoon Jin¹, Jongsu Han¹, Kyeongsoon Park²
¹*Hoseo University*, ²*Sejong University*

OS-1820 Improvement of Index-matched ITO Thin Film on the Flexible Substrates using by Ionized Physical Vapor Deposition

Chan-Hwa Hong^{1,2}, Jae-Heon Shin¹, Kyung-Hyun Kim¹, Nae-Man Park¹, Chang-woo Song¹, Byeong-Kwon Ju², Seung-Yong Pyun³, Jong-Sun Yon³, Woo-Seok Cheong¹
¹*ETRI*, ²*Korea University*, ³*SKC Haas*

OS-1937 Effects of Thin Conductive Layer on Oxide Thin Film Transistors with Double-Stacked Channel Structure

Min Suk Oh^{1,2}, Young Min Na^{1,2}, Byoung Wook Yoo¹, Jeongno Lee¹, Sung-Min Yoon²
¹*Korea Electronics Technology Institute (KETI)*, ²*Kyung Hee University*

OS-2095 Improved Electrical and Optical Properties of GaN based LED with ITO and GZO p-electrode by using Plasma Damage-free Sputtering

Min Joo Park, Joon Seop Kwak
Sunchon National University

OS-2105 Evaluation of Electrical Property of PbO(Lead Oxide) according to the Different Ratio of β -PbO- α -PbO for Application to Digital x-ray Detector

Gyu-seok Cho, Jung-wook Shin, Kyung-min Oh, Jin-seon Kim, Sang-hee Nam
Inje University

OS-2111 Atomic Layer Deposition of Zinc Tin Oxide Thin Film Transistors using Water and Hydrogen Peroxide as Reactants

Jin-Seong Park¹, Dong-Won Choi¹, Kwun-Bum Chung², Jung-Dae Kwon³
¹Hanyang University, ²Dankook University, ³Korea Institute of Materials Science

OS-2162 Effect of Excimer Laser Annealing on the Properties of IZO Thin Films prepared by Sol-gel Process

Chien-Yie Tsay, Tzu-Teng Huang
Feng Chia University

OS-2182 High Performance in Solution IGZO Thin Film Transistor by Ar/O₂ Plasma Treatment of Microwave Annealing at Low Temperature

Ja-Gyeong Gu¹, Kwan-Su Kim¹, Kwang-Won Cho¹, Jung-Hoon Park¹, Tae-Hwan Lim¹, Sung-Min Park¹, Sung-Wan Moon¹, Ho-Myoung An², Won-Ju Cho¹
¹KwangWoon University, ²Osan College

OS-2240 ITO/AgAl/ITO Multilayer Structure for Transparent Conducting Oxide

Nae-Man Park, Kyung Hyun Kim, Jaeheon Shin, Chang-Woo Song, Chan Hwa Hong, Woo-Seok Cheong
ETRI

OS-2890 Electrical Characteristic of a-IGZO Oxide TFTs with 3 Layer Gate Dielectrics for Flexible Display

Sang Chul Lim, Jae Bon Koo, Chan Woo Park, Soon-Won Jung, Bock Soon Na, Sang Suk Lee, Hye Yong Chu
Electronics and Telecommunications Research Institute (ETRI)

OS-4512 High Lewis Acid Strength Carbon Incorporated as Carrier Suppressor into Amorphous Indium Zinc Oxide TFT

Jang Yeon Kwon, Shanmugam Parthiban
Yonsei University

Power Electronic Materials and Devices (PE)

Oral Presentation

Nov. 12, 2013 (Tue.)

PE-1 (Power Electronic Materials and Devices 1)

304

Chair : Prof. Kyu-Hwan Shim (Chonbuk National University)

13:00-14:30

PE-2881 High-Performance GaN-based Nanochannel FinFETs With/Without AlGaIn/GaN Heterostructure

13:00-13:30 Jung-Hee Lee

Invited Speech *Kyungpook National University*

PE-4482 Recent Development of SiC High Temperature, High Power Density Modules

13:30-14:00 Kuang Sheng, Xueqian Zhong

Invited Speech *Zhejiang University*

PE-3223 An IGBT Half-bridge Module with Low Parasitic Inductance

14:00-14:15 Tong Gu, Shidong Cheng, Qing Guo, Weicheng Zhou, Kuang Sheng

Zhejiang University

PE-2578 Effect of SbI3 Doping on the Thermoelectric Properties of p-type Bi-Sb-Te

14:15-14:30 Jae-Uk Lee^{1,2}, Deuk-Hee Lee¹, Do Bin Hyun¹, Seung-Hyub Baek¹, Sahn Nahm², Jin-Sang Kim¹

¹Korea Institute of Science and Technology, ²Korea University

PE
Oral

Nov. 12, 2013 (Tue.)

PE-2 (Power Electronic Materials and Devices 2)

304

Chair : Dr. In Ho Kang (Korea Electrotechnology Research Institute)

15:00-16:45

PE-1037 Current Status of GaN Power Electronic Devices in ETRI

15:00-15:30 Jae Kyoung Mun¹, Sang Choon Ko¹, W. J. Chang¹, S. B. Bae¹, Y. R. Park¹, W. Y. Jang^{1,2}, J. J. Kim^{1,3},

Invited Speech C. H. Jun¹, Z. S. Kim¹, S. H. Moon¹, K. H. Lee⁴, E. S. Nam¹

¹ETRI, ²Sejong Univ., ³Chunbuk National Univ., ⁴Hanbat Univ.

PE-3705 Toward GaN-based Power Integrated Circuits

15:30-16:00 Kevin J. Chen

Invited Speech *The Hong Kong University of Science and Technology*

PE-2406 High-voltage GaN-on-Si High Electron Mobility Transistors with Lower Leakage and Collapse Effects using SiNx Surface Passivation Layer by Low Pressure Chemical Vapor Deposition

16:00-16:15

Sung Woon Moon, Jongsub Lee, Deokwon Seo, Sungdal Jung, Hong Goo Choi, Heejae Shim, Jeong Soon Yim, John Twynam, SungWon Roh

LG Innotek

PE-2711 High Performance Au-free Metallization for High-voltage GaN-based High-Electron-Mobility Transistors Fabricated Grown on 150mm Si Substrates

16:15-16:30

Deok Won Seo, Hong Goo Choi, Ki Min Kim, Jeong Soon Yim, Sungdal Jung, Jongsub Lee, Sung Woon Moon, John Twynam, Sung Won Roh
LG Innotek

PE-1232 Study of Phase Sensitivity on Harmonic Analysis based on Windowed DFT Algorithm

16:30-16:45

Shuping Song, MA Hongzhong
Hohai University

PE
Oral

Nov. 12, 2013 (Tue.)

PE (Power Electronic Materials and Devices)

Conference Room Lobby

Chair : Dr. Cheol Jong Choi (Chonbuk National University)

16:30-18:00

PE-0363 Developing Adaptable Power Supply for Driving Active Amplifier Systems with Variable Loads

Keehong Um¹, Sooyeup Yoo²

¹Hansei University, ²Amotech Co., Ltd.

PE-0745 Schottky Barrier Diode Embedded AlGaIn/GaN-on-Si Heterojunction Field Effect Transistor

Bong-Ryeol Park, Jung-Yeon Lee, Ho-Young Cha

Hongik University

PE-0755 Coplanar Waveguides based on Cobalt Magnetic Nanowire Arrays Substrates

Lixin Yuan, Zhenxing Yue, Siqin Meng

Tsinghua University

PE-0843 Recessed AlGaIn/GaN Power Transistors and Rectifiers

Jae-Gil Lee¹, Bong-Ryeol Park¹, Sang-Woo Han¹, Jung-Yeon Lee¹, Kwang-Seok Seo², Ho-Young Cha¹

¹Hongik University, ²Seoul National University

PE-1051 Fabrication of a 600V/20A 4H-SiC Schottky Barrier Diode

In Ho Kang

KERI

PE-1328 New Preceding Research for MEMS based Piezoelectric Energy Harvester with Flammable Materials

Woo Seok Kang, Jung-Hyuk Koh

Kwangwoon University

PE-1376 Analysis on Characteristics of Frequency Control Circuit to Generate High Voltage in Mobile X-ray Unit

Youngpyo Kim, Taegon Kim, Yongpil Park, Minwoo Cheon

Dongsin University

PE-1439 Growth and Characterization of the GaN Epilayers Grown on Nano-patterned Si(111) Substrates by MOCVD

Jong Ock Kim, Chul Jong Choi, Kyu Hwan Shim, Kee Young Lim

Chonbuk National University

PE-1708 Carrier Transport Mechanism of Ni/Ag Schottky Contacts to n-type GaN Grown on Si (111) Substrate

Joo-Young Jeong, V. Janardhanam, Kyu-Hwan Shim, Chel-Jong Choi

Chonbuk National University

- PE-1951 Effects of Electrostatic Discharge Stress on Current-Voltage and Reverse Recovery Time of Fast Recovery Power Diode**
 Daoheung Bouangeune¹, Hyun-Deok Yang¹, Joo-Young Jung¹, Sang-Sik Choi², Deok-Ho Cho², Chel-Jong Choi¹, Kyu-Hwan Shim¹
¹Chonbuk National University, ²Sigetronics, Inc.
- PE-2191 Ba0.3Sr0.7Zr0.18Ti0.82O3-xMgO Ceramics: Energy Storage and Breakdown**
 Xiaojian Sun, Arzigul Habibul, Xiaoshan Zhang, Danyang Zhang, Ping Yu
 Sichuan University
- PE-2299 Nanofabrication of Synthetic Mica in an Epoxy Matrix for High Voltage Insulation Systems using Electric Field Dispersion Process**
 Jae-Young Lee¹, Jae-Jun Park²
¹Woosuk University, ²Joongbu University
- PE-2301 Effect of Temperature on the Exfoliation of Layered Silicate in an Epoxy Resin using Electric Field Dispersion Process**
 Jae-Jun Park¹, Jae-Young Lee²
¹Joongbu University, ²Woosuk University
- PE-2448 Effects of Accelerated Thermal Aging Temperature on the Relation between the Electrical and Physical Properties of CSPE**
 In-Yong Kim¹, Hyun-Shin Park¹, Jung-Hoon Lee², Myeong-Gyun Kang², Jun-Soo Jeon², Seung-Hoon Lee², Yong-Deok Shin²
¹Korea Institute of Nuclear Safety, ²Wonkwang University
- PE-2534 Homoepitaxial Growth on 6H-SiC Seed by High Temperature Chemical Vapor Deposition using Tetramethylsilane**
 Deok-Hui Nam, Byeong Geun Kim, Ji-Young Yoon, Myung-Hyun Lee, Won-Seon Seo, Kyung-Hun Kim, Young Joon Yoon, Seong-Min Jeong
 Korea Institute of Ceramic Engineering and Technology
- PE-2656 Extraction of c-axis GaN Electron Mobility in Semi-vertical Schottky Barrier Diode Structure**
 Sunghoon Lee, Heejae Shim, Wonhee Choi, Jeong Soon Yim, Daeyoung Ko, Sung Woon Moon, Hong Goo Choi, Twynam John, SungWon Roh
 LG Innotek
- PE-2684 Effect of Synthesis Calcination Temperature on the Structural and Electrochemical Properties of LiNi1-x-yCoxMnyO2 Prepared by Carbonate Co-precipitation Method**
 Gi Won Yoo, Hyo Jin Jeon, Byung Chan Jang, Song Gi Min, Jong Tae Son
 Korea National University of Transportation
- PE-2744 Synthesis Mechanism of LiMnPO4 Nanofibers using Electrospinning Process**
 Cheong Kim, Bo Ra Kim, Jong Tae Son
 Korea National University of Transportation

PE-2775 The Effect of Multi-channel on the Performance of Field Effect Transistors in 4H-SiC for Improved Cooling of Power Devices

Min-Seok Kang, Jun-Wan Kwon, Sang-Mo Koo
Kwangwoon University

PE-2778 Atomic Force Microscopy-Assisted Normally-off AlGaN/GaN HEMTs

Sang-Mo Koo, Jung-Ho Lee, Min-Seok Kang
Kwangwoon University

PE-2790 The Effect of LiNi_{0.85}Co_{0.10}Al_{0.05}O₂ Cathodes at 55 °C by Iron-doping for Lithium Ion Batteries

Tae Jun Park, Su Bin Yang, Jong Tae Son
Korea National University of Transportation

PE-2846 Numerical and Experimental Analysis of Piezoresistance of Conductive Asphalt Concrete Containing Graphite

Ning Tang¹, Changjun Sun², Pan Pan¹, Shaopeng Wu¹
¹Wuhan University of Technology, ²Caofeidian Development Investment Group Co., LTD

PE-2980 Characterization of Excess Carbon on SiC Crystal Obtained by High Temperature Chemical Vapor Deposition

Byeong Geun Kim, Ji-Young Yoon, Deok-Hui Nam, Myung-Hyun Lee, Won-Seon Seo, Seong-Min Jeong
Korea Institute of Ceramic Engineering and Technology

PE-3748 Development of Surface Morphology for V-based Ohmic Contact to AlGaN/GaN HEMT

Sang Min Jung, Chang Taek Lee, Moo Whan Shin
Yonsei University

PE-3857 Heat Dissipation for Microprocessor using Multiwalled Carbon Nanotubes based Liquid

Bui Hung Thang¹, Pham Van Trinh¹, Nguyen Huu Hong², Phan Hong Khoi¹, Phan Ngoc Minh³
¹Institute of Materials Science, ²Le Qui Don Technical University, ³Vietnam Academy of Science and Technology

PE-4014 Negative Charging Effect of the Traps on the Gate Leakage Current of an AlGaN/GaN HEMT

Jeong Jin Kim, Jin Hong Im, Jeon Wook Yang
Chonbuk National University

Advanced Photovoltaic Materials and Devices (PV)

Oral Presentation

Nov. 13, 2013 (Wed.)

PV-1 (Advanced Photovoltaic Materials and Devices 1)

Halla B

Chairs : Dr. Sang Il Seok (Korea Research Institute of Chemical Technology)

09:00-10:45

Prof. Bumjoon Kim (Korea Advanced Institute of Science and Technology)

PV-3444 Strategies for High Efficiency Plastic Dye-Sensitized Solar Cells

09:00-09:30 Min Jae Ko

Invited Speech Korea Institute of Science and Technology (KIST)

PV-4522 Perovskite Solar Cells

09:30-10:00 Nam-Gyu Park

Invited Speech Sungkyunkwan University

PV-3303 Zn Doped TiO₂ Thin Film Grown by Nanocluster Deposition as a Novel Blocking Layer for Improved Dye-sensitized TiO₂ Solar Cell Performance

10:00-10:15

Thanh Tung Duong, Hyung-Jin Choi, Soon-Gil Yoon

Chungnam National University

PV-0445 Formation of Highly Crystallized ZnO Nanorods on RF Sputtered Zn Films by Hot-water Treatment for Dye-sensitized Solar Cells

10:15-10:30

Wai Kian Tan¹, Khairunisak Abdul Razak², Zainovia Lockman², Go Kawamura¹, Hiroyuki Muto¹, Atsunori Matsuda¹

¹Toyohashi University of Technology, ²Universiti Sains Malaysia

PV-4298 Fabrication and Photoelectronic Properties of Electrospun TiO₂ Nanofibers Composed of Bundle of Aligned Nanofibrils for Applications in Dye-Sensitized Solar Cells

10:30-10:45

Surawut Chuangchote¹, Takashi Sagawa²

¹King Mongkut's University of Technology Thonburi, ²Kyoto University

Nov. 13, 2013 (Wed.)

PV-2 (Advanced Photovoltaic Materials and Devices 2)

Halla B

Chair : Dr. Sang Il Seok (Korea Research Institute of Chemical Technology)

13:00-14:15

PV-4399 Design of Electroactive Materials for Improving Thermal Stability and Voc in Polymer Solar Cells

13:00-13:30

Invited Speech Bumjoon Kim

KAIST

PV
Oral

PV-4387 All-inorganic Nanocrystals ; Synthesis, Properties, and Application

13:30-14:00 Jong Soo Lee, Jeong Hyun Park, Min Ji Im
Invited Speech Daegu Gyeongbuk Institute of Science & Technology(DGIST)

PV-3439 Deposition of Sb₂S₃ onto Mesoporous TiO₂ via Thermal Decomposition of Single Source Precursors and its Application to Inorganic-organic Heterojunction Solar Cells

14:00-14:15 Yong Chan Choi, Jun Hong Noh, Tarak Nath Mandal, Woon Seok Yang, Sang Il Seok
Korea Research Institute of Chemical Technology

Nov. 13, 2013 (Wed.)

PV-3 (Advanced Photovoltaic Materials and Devices 3)

Halla B

Chairs : Prof. Jaehyeong Lee (Sungkyunkwan University)

15:00-16:15

Dr. Min Jae Ko (Korea Institute of Science and Technology)

PV-3697 Silicon Solar Cells: Past, Present and the Future

15:00-15:30 Yoon-Jung Lee, Cheolmin Park, Jaehyun Cho, Younseok Lee, Jinjoo Park, Minkyu Ju, Junsin Yi
Invited Speech Sungkyunkwan University

PV-4486 Chemical Approaches to the Development of Nanomaterials with Advanced Functionality for Next-generation Photovoltaics

15:30-16:00 Jeffrey M. Pietryga
Invited Speech Los Alamos National Laboratory

PV-3468 Enhanced Performance of Organic Solar Cells by Periodic Arrays of Three-dimensional ITO Nano-helices Electrodes

16:00-16:15 Hyunah Kwon¹, Juyoung Ham¹, Dong Yeong Kim¹, Seung Jae Oh¹, Gwan Ho Jung², Subin Lee¹, Sang Ho Oh¹, Jong-Lam Lee¹, Jong Kyu Kim¹
¹POSTECH, ²Univ. of Michigan

PV
Oral

Nov. 14, 2013 (Thu.)

PV-4 (Advanced Photovoltaic Materials and Devices 4)

Halla B

Chairs : Dr. Sohee Jeong (Korea Institute of Machinery & Materials)

09:00-10:15

Dr. Jeffrey M. Pietryga (Los Alamos National Laboratory)

PV-4477 Semiconductor Quantum Dots and Solar Energy Conversion

09:00-09:30 Victor I. Klimov
Invited Speech Los Alamos National Laboratory

PV-4424 Synergistic Plasmonic Arrangements in Dye-sensitized Solar Cells with Improved Stability

09:30-10:00 Jung-Yong Lee
Invited Speech KAIST

PV-4164 Metal Chloride Precursor Synthesization of Cu₂ZnSnS₄ Solar Cell Materials

10:00-10:15 Min Yen Yeh¹, Yu-Fong Huang¹, Dong-Sing Wu², Cheng-Liang Huang¹, Chyi-Da Yang¹, Po-Hsun Lei¹
¹National Kaohsiung Marine University, ²National Chung Hsing University

Nov. 14, 2013 (Thu.)

PV-5 (Advanced Photovoltaic Materials and Devices 5)

Halla B

Chair : Prof. Jung-Yong Lee (Korea Advanced Institute of Science and Technology)

13:00-14:30

PV-4559 Next-generation Silicon Solar Cell Technology

13:00-13:30 Donghwan Kim, Hae-Seok Lee, Sungeun Park

Invited Speech *Korea University*

PV-4160 Properties of Cuprous Oxide Thin Film Fabricated by Reactive Sputtering

13:30-13:45 Yu Sup Jung, Chung Wung Bark, Hyung Wook Choi, Kyung Hwan Kim

Gachon University

PV-0613 Effect of Solvent on Fabrication of Active Layers in PBDTTPD: PC71BM Bulk Heterojunction Solar Cell using Air Brush Coating Method

13:45-14:00

Shizuyasu Ochiai¹, Kannappan Santhakumar¹, Palanisamy Kumar¹, Jiro Tatsugi¹, Paik-Kyun Shin²

¹Aichi Institute of Technology, ²Inha University

PV-4305 Organic-inorganic Interface and Nanostructure Studies using Diverse x-ray Scatterings

14:00-14:15

Hyo Jung Kim¹, Hyun Hwi Lee²

¹Pusan National University, ²Pohang Accelerator Laboratory

PV-3866 Photovoltaics: A Materials and Technology Perspective

14:15-14:30

Balgovind Tiwari¹, Vijay (Kumar) Kulshreshtha²

¹Rajiv Gandhi University of Knowledge Technologies, ²West Benga University of Technology

PV
Oral

Nov. 13, 2013 (Wed.)

PV-1 (Advanced Photovoltaic Materials and Devices 1)

Conference Room Lobby

Chair : Prof. Jaehyeong Lee (Sungkyunkwan University)

16:30-18:00

PV-2319 Surface Recombination Evaluation of Silicon Wafer by Photoluminescence Intensity Ratio Method for Solar Cell Applications

Dohyun Baek, Jaehyeong Lee, Byoungdeog Choi
Sungkyunkwan University

PV-2388 Effect of Ga-doped ZnO Thin Film with ZTO Buffer Layer by Pulsed DC Magnetron Sputter for Dye-sensitized Solar Cells

Sang-Woo Song¹, Kyung-Ju Lee¹, Ji-Hyung Roh¹, On-Jeon Park¹, Hwan-Sun Kim¹, Min-Woo Ji², Byung-Moo Moon¹
¹Korea University, ²Yonsei University

PV-2484 In-Situ AFM Investigation of Mechanical and Thermal Characterization of Electroless Nickel Silicide Contacts for Si-Based Solar Cell

Areum Kim, Sung Gyu Pyo, Seonjea Lee, Eunmi Choi, Yinhua Cui, Hee Soo Choi, Chang Hyun Kim, Soon Hyeong Kwon
Chung-Ang University

PV-2529 Impurity Segregation Behavior in Polycrystalline Silicon Ingot Grown with Variation of Electron-beam Power

Jun-kyu Lee¹, Jin-seok Lee¹, Bo-yun Jang¹, Joon-soo Kim¹, Young-soo Kim¹, Churl-hee Cho²
¹Korea Institute of Energy Research, ²Chungnam National University

PV-2627 Photovoltaic Performance of Multi-wall Carbon Nanotube / PEDOT: PSS Composite on the Counter Electrode for Dye-sensitized Solar Cell

Yong Hoon Rhee¹, Nam Ki Min¹, Joon-Hyung Jin²
¹Korea University, ²Hanyang University

PV-2800 A Cost-effective Refining Method for Boron Reduction in Molten Silicon

Jong-Jin No, Jin-seok Lee, Bo-yun Jang, Joon-soo Kim, Young-soo Ahn
Korea Institute of Energy Research

PV-2976 Size-dependent Solar Cell Parameters of PbS NQDs in Schottky Solar Cell

Hyekyoung Choi, Jung Hoon Song, Ji Hoon Jang, Sohee Jeong
Korea Institute of Machinery and Materials (KIMM)

PV-3010 Study on the MoO₃ Barrier Layer Dependence of Photoinduced Current in Organic Solar Cell using Photoconductive Atomic Force Microscopy (PC-AFM)

Jinhee Heo, Youngmok Rhyim
Korea Institute of Materials Science(KIMS)

- PV-3061 Performance of Organic Photovoltaic Devices in the Presence of Buffer Layers**
Seung-Tae Kim¹, Yong-Gil Kang¹, Hyun-Min Choi¹, Jong-Yong Lee¹, Tae-Wan Kim², Jin-Woong Hong¹
¹Kwangju University, ²Hongik University
- PV-3080 Synthesis of CuSe and CuInSe₂ Nanoparticles in Aqueous Solution for Thin Film Solar Cells**
Jae-Sub Hahn¹, Jaehyeong Lee², Joongpyo Shim¹
¹Kunsan National University, ²SungKyunKwan University
- PV-3088 Graphene-Chromophore Complex Monolayer at the Liquid-Gas Interface for Photovoltaic Applications**
Chan Young Im, Hyeri Kim, Jaseung Koo
Korea Atomic Energy Research Institute(KAERI)
- PV-3105 Effect of CdSe/CdS Quantum Dot Cosensitized Solar Cells in Zn₂SnO₄**
Eun Su Park, Kyungho Kim, Ji Eun Park, Man-Jong Lee
Konkuk University
- PV-3110 Enhanced Long Term Stability of OPV using UV Protectable Transparent Metal Oxide Thin Layer**
Chang-Taeg Seo, Han Jae Shin, Byoung-Ho Kang, Dong Ic Lee, Se-Hyuk Yeom
GUMI Electronics & Information Technology Research Institute
- PV-3121 Fabrication and Characterization of Ni/Cu Metal Contact for Silicon Solar Cell using Electroless Plating Method**
Seong-Ho Baek, Seungmin Yeo, Jae Hyun Kim
Daegu-Gyeongbuk Institute of Science and Technology
- PV-3199 Polyaniline/TiO₂ Composite Counter Electrodes for Dye Sensitized Solar Cells base on Organic T2/T- Electrolyte**
Wasan Maiaugree, Madsakorn Towannang, Samuk Pimanpang, Vittaya Amornkitbamrung
Khon Kaen University
- PV-3209 Mangosteen Carbon/PEDOT: PSS Counter Electrodes for Dye Sensitized Solar Cell**
Wasan Maiaugree, Saman Saekow, Apishok Tangtrakarn, Samuk Pimanpang, Vittaya Amornkitbamrung
Khon Kaen University
- PV-3232 Enhancing Efficiency of Dye-Sensitized Solar Cells with Increased Porosity of TiO₂ Film Using Perylene - 3,4,9,10 - Tetracarboxylic Dianhydride (PTCDA)**
Hyun Woo Seo, Subrata Sarker, Young-Ku Jin, Ki-Seong Lee, Dong Min Kim
Hongik University
- PV-3236 Influence of Potential Sweep on the Measurement of Current Density-Voltage Curves of Dye-sensitized Solar Cells**
Subrata Sarker, Hyun Woo Seo, Ki-Seong Lee, Young Ku Jin, Dong Min Kim
Hongik University
- PV-3242 Effect of Polarity of the Electrodeposited Cu₂O Thin Film and Its Enhancement for Photo-electrochemical Property**
Misung Kim¹, Sanghwa Yoon², Dong-Chan Lim¹, Bongyoung Yoo², Jae-Hong Lim¹, Kyu Hwan Lee¹, Jae-Hong Lim¹
¹Korea Institute of Materials Science, ²Hanyang University

PV-3309 Enhancement of the Transmittance of ITO Transparent Conductive Film by using MgF₂ Thin Film for Dye-Sensitized Solar Cell

JongSu Woo, GunEik Jang
Chungbuk National University

PV-3341 Enhanced Performance of Quantum Dots based Solar Cell using Surface Modification

JungHoon Song¹, Jae-Hyeon Ko², Hye Jin An¹, Hyekyoung Choi³, Yong-Hyun Kim², Sohee Jeong¹
¹Korea Institute of Machinery and Materials, ²Korea Advanced Institute of Science and Technology, ³University of Science and Technology

PV-3397 RuO₂ Nanoparticles for the Counter Electrode of Dye-Sensitized Solar Cells

Ka Yeon Ryu¹, Jeessoo Seck¹, Min Jae Ko², Myung Hwa Kim¹, Kyungkon Kim¹
¹Ewha Womans University, ²Korea Institute of Science and Technology

PV-3400 Bilayer Organic Photovoltaics with Tetrabenzoporphyrin and P3HT/PCBM Layer to Expand Spectral Response

Kyung Jin Kim, Jeessoo Seok, Lin Xie, Yoonhee Jang, Ka Yeon Ryu, Kyungkon Kim
Ewha Womans University

PV-3402 Effects of Thermal Annealing on the Morphology and the Performance of P3HT/PCBM based Bi-layer Organic Solar Cell

Lin Xie, Jeessoo Seok, Yoonhee Jang, Kyung Jin Kim, Kyungkon Kim
Ewha Womans University

PV-3599 Synthesis and Characterization of Silver Nanowires toward Transparent Electrodes

Nam Joong Jeon, Young Chan Kim, Jun Hong Noh, Sang Il Seok
Korea Research Institute of Chemical Technology

PV-3624 New Single-Source Precursor for the Deposition of Bi₂S₃

Tarak Nath Mandal, Yong Chan Choi, Sang Il Seok
Korea Research Institute of Chemical Technology

PV-3676 Increase of Efficiency in a Multilayer Bulkheterojunction Solar Cell by using Water Soluble Conjugated Polymer as an Electron Injection Layer

Eun-Hue Nam¹, Dong-Hun Lee², Chung-Gi Kim², Han-Sol NamKung², Dong-Kyu Park², Hyung-Suk Woo²
¹Kooksung Polytech Co., Ltd, ²Kyungsung University

PV-3713 Aluminum Oxide as Passivation Layer in ZnO/p-Si Hetero-junction Diodes Deposited by Thermal Atomic Layer Deposition

Kwang Seok Jeong, Seong Hyeon Kim, Ho Jin Yun, Seung Dong Yang, Yu Mi Kim, Jin Seob Kim, Hi Deok Lee, Ga Won Lee
Chungnam National University

PV-3726 The Study on Electrical properties of Mono Crystalline Silicon Solar Cell with Various Selective Emitter Formation

Sungjin Choi¹, Min Gu Kang², Donghwan Kim¹, Hee-eun Song²
¹Korea University, ²Korea Institute of Energy Research

- PV-3730 Multi-crystalline Silicon Solar Cell with Reactive Ion Etching Texturization**
Seok Gi Park, Min Gu Kang, Gi Hwan Kang, Hee-eun Song
Korea Institute of Energy Research
- PV-3796 Dye Sensitized Solar Cell based on Metal Chloride-doped Graphene Counter Electrode**
Kyoung Soon Choi, Ki Chang Kwon, Soo Young Kim
Chung-Ang University
- PV-3813 Effects of Phosphorus Diffusion Gettering on Minority Carrier Lifetimes of Single-Crystalline, Multi-Crystalline and UMG Silicon Wafer**
Jeong Kim, Sung Yean Yoon, Jin Hong Kim
Sejong University
- PV-3855 Organometal Halide Perovskite Pillared Structure for Efficient Inorganic-Organic Heterojunction Solar Cells**
Jun Hong Noh, Young Chan Kim, Seungchan Ryu, Sang Il Seok
Korea Research Institute of Chemical Technology
- PV-3904 Effects of Cu Wire's Shape on the Plating Property of Sn-Pb Solder for Photovoltaic Ribbon**
Tae-Sik Cho¹, Mun-Seok Chae¹, Chul-Sik Cho²
¹Kyungpook National University, ²Sanko Korea Co.
- PV-3991 Optical Properties of CuGaSe₂ Films Grown by Thermal Co-evaporation**
Seunghee Yu, Gye-Choon Park
Mokpo National University
- PV-4000 Flicker Noise Analysis of Passivation Layer Effect for Heterojunction Solar Cells**
YoungUk Ko, GaWon Lee, HiDeok Lee, HoJin Yun, KwangSeok Jeong, YuMi Kim, SeungDong Yang, JinSup Kim, SeongHyeon Kim, JinUn An
Chungnam National University
- PV-4009 Material Properties of GeSe Chalcogenide Glass and Fabrication Process for IR Optical Lens**
Hyun-Yong Lee, Dong-Sik Bae, Jong-Bin Yeo
Chonnam National University
- PV-4037 Characteristics of Chemical Spray Pyrolysis-deposited Niobia Thin Films as the Blocking Layer in Dye-sensitized Solar Cells**
Do Kyung Lee¹, Jae Hong Kim²
¹Catholic University of Daegu, ²Yeungnam University
- PV-4053 Preparation of Phosphor/TiO₂ Nanoparticle Composite Layer Application in Dye-sensitized Solar Cell**
Seong Gwan Shin, Kyung Hwan Kim, Chung Wung Bark, Hyung Wook Choi
Gachon University
- PV-4071 Preparation of Al₂O₃-doping on TiO₂ Electrode and Its Applications in Dye-sensitized Solar Cells**
TaeSung Eom, Kyung Hwan Kim, Chung Wung Bark, Hyung Wook Choi
Gachon University

PV-4118 Direct Deposition of Cu₂ZnSnS₄ Thin Films by Solution Method for Solar Cell Applications

Vinayakumar Arepalli, Nam-kyu Park, Eui-Tae Kim
Chungnam National University

PV-4172 Impurities Doped ZnO Thin Film for Optoelectronic Applications

Jin Seon Lee, Yu Sup Jung, Kyung Hwan Kim
Gachon University

PV-4173 Effect of a Deposition Temperature on the Optical Bandgap and Defect Density in the Hydrogenated Amorphous Silicon Germanium for Solar Cell Application

Minbum Kim, Jaehyun Cho, Jinjoo Park, Junhee Jung, Jiwoong Kim, Younjung Lee, Junsin Yi
Sungkyunkwan University

PV-4198 A Comparison of Amorphous and Crystalline Tungsten Oxide Thin Films for Electrochromic Device Application

Min Hong Kim, Chung Wung Bark, Hyung Wook Choi, Kyung Hwan Kim
Gachon University

PV-4206 Characterization of (0001) Polar and (11-22) Semipolar Thick InGaN Layers Grown by Metal Organic Chemical Vapor Deposition

Jaehwan Kim, Daehong Min, Jongjin Jang, Sooryong Chae, Kyuseung Lee, Seunghwan Moon, Okhyun Nam
Korea Polytechnic University

PV-4220 Effect of Defect States on Photoelectric Conversion Efficiency in InAs/GaAs Quantum Dot Solar Cells

Kyoung Su Lee¹, Dong Uk Lee¹, Eun Kyu Kim¹, Won Jun Choi²
¹Hanyang University, ²Korea Institute of Science and Technology

PV-4233 Improvement of ZnO p-n Diode Properties using ZnO/AZO Homogeneous Metal Contact

Jin Un An, Ho Jin Yun, Kwang Seok Jeong, Yu Mi Kim, Seung Dong Yang, Seong Hyeon Kim, Jin Sup Kim, Young Uk Ko, Hi Deok Lee, Ga Won Lee
Chungnam National University

PV-4241 Fabrication of Texturing Structures to Improve Photovoltaic Cell Efficiency of 1% and Over

Daeyoung Kong¹, Pyohwan Hong¹, Daeseong Pyo¹, Sungho Yun², Bonghwan Kim³, Chanseob Cho¹, Jonghyun Lee¹
¹Kyungpook National University, ²Utech, ³Catholic University of Daegu

PV-4256 Efficiency Improvement of Silicon Solar Cell using the Floating Grid-RIE Process

Daeyoung Kong¹, Sungho Yun², Chanseob Cho¹, Bonghwan Kim³, Jonghyun Lee¹
¹Kyungpook National University, ²Utech, ³Catholic University of Daegu

PV-4268 Study of Amorphous Silicon Oxide Buffer Layer for p-Type Microcrystalline Silicon Oxide/n-Type Crystalline Silicon Heterojunction Solar Cells and Their Temperature Dependence

Jaran Sritharathikhun¹, Taweewat Krajangsang¹, Amornrat Limmanee¹, Nattaphong Boriraksantikul², Tianchai Taratiwat², Nirod Akarapanjavit², Wisanu Pecharapa³, Kobsak Sriprapha¹
¹National Electronics and Computer Technology Center (NECTEC), ²PTT Public Company Limited, ³King Mongkut's Institute of Technology Ladkrabang

PV-4346 Cd-free Indium Selenide Buffer Layers for CIGS Photovoltaic Applications Prepared by RF-sputtering and Rapid Thermal Annealing

Myoung Han Yoo, Woo-Sun Lee, Nam-Hoon Kim

Chosun University

PV-4351 Optical, Electrical and Structural Properties of Chalcopyrite CuAlxSe2 Thin Films Prepared by Co-sputtering with CuSe2 and Al Targets

Young-Kil Jun, Woo-Sun Lee, Nam-Hoon Kim

Chosun University

Nov. 14, 2013 (Thu.)

PV-2 (Advanced Photovoltaic Materials and Devices 2)

Conference Room Lobby

Chair : Dr. Sohee Jeong (Korea Institute of Machinery & Materials)

16:30-18:00

PV-0383 Ag Nanodots Emitters Embedded in an Amorphous Si Window Layer Deposited on Si Solar Cells

Seungil Park¹, HyungYong Ji¹, Jong Hyeon Peck¹, Keunjoo Kim²

¹Korea Institute of Industrial Technology, ²Chonbuk National University

PV-0399 Low Temperature Fabricated ZnO, AZO, and SnO2 Nanoparticle based Dye-sensitized Solar Cells

Dong Ick Son, Byoung Wook Kwon, Sungjae Cho, Won Kook Choi

Korea Institute of Science and Technology

PV-0412 New Characterization Method of Solid-Phase-Crystallization Poly-Si Thin Film Fabricated by Plasma Enhanced Chemical Vapor Deposition Method for Solar Cell Application

Soon-Yong Kweon¹, Ji-Hee Pi¹, Yuguo Tao², Sergey Varlamov²

¹Korea National University of Transportation, ²The University of New South Wales

PV-0521 Cu2ZnSnS4 Solar Cells with Multi-Stacked Absorber Layer Structure using Sputtering Process

Kee-Jeong Yang, Jun-Hyoung Sim, Boram Jeon, Dae-Ho Son, Jin-Kyu Kang

DGIST

PV-0542 Grain Growth Behavior in a Columnar Grain Structured Silicon Wafer for Photovoltaic Application

Jin-Seok Lee¹, Ye-Neug Lee¹, Bo-Yun Jang¹, Joon-Soo Kim¹, Young-Soo Ahn¹, Woo-Young Yoon²

¹Korea Institute of Energy Research, ²Korea University

PV-0549 Sulfurization Temperature-dependent Study of Cu2ZnSnS4 Thin Films

Jun-Hyoung Sim, Dae-Ho Son, Boram Jeon, Si-Nae Park, Kee-Jeong Yang, Dae-Hwan Kim, Jin-Kyu Kang

Daegu Gyeongbuk Institute of Science & Technology (DGIST)

PV-0562 A Link Between Hydrogen Microstructure and Light Induced Degradation Kinetics of Hydrogenated Polymorphous Silicon Solar Cells

Ka-Hyun Kim¹, Erik V. Johnson², Pere Roca I Cabarrocas²

¹Korea Institute of Energy Research, ²Ecole Polytechnique

PV
Poster

PV-0616 Effect of Solvent Annealing on the Morphology of Copper Phthalocyanine Nano Particles and Its Influence on the Efficiency of Polymer Solar Cells

Shizuyasu Ochiai¹, Palanisamy Kumar¹, Santhakumar Kannappan¹, Paik-Kyun Shin²

¹Aichi Institute of Technology, ²Inha University

PV-0797 The Effect of Pre and Post TiCl₄ Treatment on ZnO Nanorod in CdS/CdSe Quantum-dot Sensitized Solar Cell

Soo-Kyoung Kim, Son Min-Kyu, Songyi Park, Myeong-Soo Jeong, Dennys Parkkavan, Kandasamy Prabakar, Hee-Je Kim

Pusan National University

PV-0807 The Characteristics of CdS/CdSe Quantum Dot-sensitized Solar Cells based on Al-doped ZnO Nanoflowers

Songyi Park, Min-Kyu Son, Soo-Kyoung Kim, Myeong-Soo Jeong, Kandasamy Prabakar, Hee-Je Kim

Pusan National University

PV-0918 ZnO Nanoparticle based CdS/CdSe Quantum Dot-Sensitized Solar Cells using Electrostatic Spray Deposition

Myeong-Soo Jeong, Min-Kyu Son, Soo-Kyoung Kim, Songyi Park, Kandasamy Prabakar, Hee-Je Kim

Pusan National University

PV-0921 Influence of the Micro-patterned ZnO Layer on the Growth of Polycrystalline-Si Layer by Aluminum-induced Layer Exchange Process

Wonbeom Chang¹, Sungkuk Choi¹, Soohoon Jung¹, Jinyeop Yoo¹, Jeungwoo Lee¹, Kosuke Hara², Haruna Watanabe², Noritaka Usami², Jiho Chang¹

¹Korea Maritime University, ²Tohoku University

PV-0958 Electrical Characterization of c-Si and CIGSS Solar Cells

Pyungho Choi, Hyungjoon Kim, Kwangsoo Kim, Hyoungsun Park, Sangsub Kim, Byoungdeog Choi

Sungkyunkwan University

PV-1038 Highly Transparent ZTO/Ag/ZTO Multilayer Electrode by In-Line Sputtering Process for Organic Photovoltaic Cells

Se-hee Cho^{1,2}, Jeong-Do Yang¹, Rina Pandey^{1,3}, Chang-Hwan Wie¹, Yun Jae Lee^{1,2}, Dong-Hee Park¹, Dong-Jin Byun², Won-Kook Choi¹

¹Korea Institute of Science and Technology, ²Korea University, ³University of Science and Technology

PV-1054 Improved Photovoltaic Parameters of Cu₂ZnSnS₄ Solar Cells through Adjustment of Back Contact Annealing Processes

Boram Jeon, Jun-Hyoung Sim, Kee-Jeong Yang, Dae-Ho Son, Dae-Hwan Kim, Jin-Kyu Kang

DGIST

PV-1143 Phase Transformation of Sn-Pb-Bi Solder for Photovoltaic Ribbon: A Real-Time Synchrotron X-ray Scattering Study

Tae-Sik Cho¹, Jin-Woo Kim²

¹Kyungpook National University, ²Gwangju Institute of Science and Technology

PV-1178 Phase Transformation of Sn-Bi Solder for Photovoltaic Ribbon: A Real-Time Synchrotron X-ray Scattering Study

Tae-Sik Cho¹, Chul-Sik Cho²

¹Kyungpook National University, ²Sanko Korea Co., Ltd

PV-1271 Raman Spectroscopy Analysis of all Wet processed CIGS Film

Hee Soo Choi, Sung Gyu Pyo, Hyung Bin Son, Seonjea Lee, Eunmi Choi, Yinhua Cui, Areum Kim, Ukjae Lee, Byambasuren Gerelt-Od, Soon Hyeong Kwon, Chang Hyun Kim

Chung-Ang University

PV-1323 Multi-wire Sawing Process for Thin Silicon Wafer with Thickness of 100 μ m for Photovoltaic Applications

Sun-Ho Choi¹, Jeon-Boon Koo¹, Bo-yun Jang¹, Joon-Soo Kim¹, Hee-Eun Song¹, Moon-Hee Han²

¹Korea Institute of Energy Research, ²ChungNam National University

PV-1340 Tail State Modification on Boron Doped Hydrogenated Amorphous Silicon Layer for Silicon Heterojunction Solar Cell Application

Seungho Lee¹, Shihyun Ahn¹, Dao Vinh Ai¹, Sunbo Kim¹, Hyeongsik Park¹, Sunyong Kim¹, Jaehyeong Lee¹, Chaehwan Jeong², Junsin Yi¹

¹Sungkyunkwan University, ²Korea Institute of Industrial Technology

PV-1344 Wire Electrical Discharge Machining Process to Slice Thin Silicon Wafer for Photovoltaic Application

Jeong-Boon Koo, Sun-Ho Choi, Bo-Yun Jang, Joon-Soo Kim

Korea Institute of Energy Research

PV-1392 Influence of Different Thermal Post-deposition Treatment on Mullite for Surface Passivation of c-Si Solar Cell Application

Nagarajan Balaji, Cheolmin Park, Jayapal Raja, Minkyu Ju, Jungmo Kim, Seunghwan Lee, Junsin Yi

Sungkyunkwan University

PV-1417 The Effect of Wet Cleaning on the Surface Passivation of Atomic Layer Deposited Al₂O₃ on Silicon Substrate

Young Joon Cho, Hyo Sik Chang

Chungnam National University

PV-1461 Dye-Sensitized Solar Cells for Greenhouse Application

Jeum-Jong Kim¹, Jumi Kim¹, Yong-Jin Yoon², Moo-Jung Chu¹

¹Electronics and Telecommunications Research Institute, ²Gyeongsang National University

PV-1573 Novel Method Way to Grow Boron-doped Microcrystalline Silicon Oxide Thin Films with Reduced Disorder

Chonghoon Shin Shin, Jinjoo Park, Sangho Kim, Hyeongsik Park, Junhee Jung, Sungjae Bong, Younjung Lee, Junsin Yi

Sungkyunkwan University

PV-1586 A Study of Energy Band Gap in Buffer Intrinsic a-Si: H Thin Films for Silicon Heterojunction Solar Cells

Sangho Kim, Dao Vinh Ai, Chonghoon Shin, Hyeongsik Park, Junsin Yi
Sungkyunkwan University

PV-1617 The Effect of Post-Annealing Temperature on the Properties of IZTO Thin Film Prepared by RF Magnetron Sputtering

Ki Hwan Kim¹, Maryane Putri¹, Chang Young Koo¹, Jung-A Lee², Jeong-Joo Kim², Hee Young Lee¹
¹*Yeungnam University*, ²*Kyungpook National University*

PV-1649 Control of the Optical Bandgap in Doped Bismuth Titanates by Oxygen Reduction

Jun Young Han, Chung Wung Bark
Gachon University

PV-1660 The Microstructure and the Properties of CIGS Layer with the Variation of the Sintering and the Deposition Conditions using Aerosol Deposition

In-Ae Kim¹, Hyo-Soon Shin¹, Dong-Hun Yeo¹, Dea-Yong Jeong²
¹*Korea Instituted of Ceramic Engineering & Technology*, ²*Inha University*

PV-1665 Low Temperature Evaporable N-type Dopant for High Efficient Organic Solar Cells

Hyung-Jun Song, Donggu Lee, Jun Young Kim, Ho Jung Syn, Youngjun Ko, Ji Yun Song, Hyun Ho Lee, Changhee Lee
Seoul National University

PV-1700 The Rheology of Front Electrode Paste with the Composition of Paste and Temperature

Jae Won Kang, Hyo Soon Shin, Dong Hun Yeo
Korea Institute of Ceramic Engineering and Technology

PV-1721 Nanodomain Engineering of Ferroelectric BiFeO₃ Single Crystal for Photovoltaic Effect

Hosang Lee¹, Ho-Young Joo¹, Wooyoung Choi¹, Chulmin Youn¹, Seongsu Lee², Baeho Park³, Taekjib Choi¹
¹*Sejong University*, ²*Korea Atomic Energy Research Institute*, ³*Konkuk University*

PV-1773 P-type Nickel Oxide as Photocathode in Photoelectrochemical Solar Cells

Min-Ah Park, Kwang-soon Ahn
Yeungnam University

PV-1883 Effect of the SiO₂ Thin Film on the Performance of Dye-sensitized Solar Cell based on ITO Film

Gun Eik Jang, Jong Su Woo
Chungbuk National University

PV-1905 Improvement of Reliability in Bulk-Heterojunction Organic Solar Cell with Reduced Graphene Oxide as Hole Transport Layer

Ho Nhu Thuy, Hak-Soon Choi, Sung Ho Nho, Shinuk Cho, V. Senthikumar, Yong Soo Kim
University of Ulsan

PV-1926 Heterostructures of Ferroelectric BiFeO₃-TiO₂ for Solar Water Splitting

Ho-yong Joo¹, Wooyoung Choi¹, Hosang Lee¹, Chulmin Youn¹, Sungmoon Hwang¹, Jihoon Jeon², Baeho Park², Taekjib Choi¹
¹*Sejong University*, ²*Konkuk University*

- PV-1999 Carbon Nanowall as a Counter Electrode of Dye-sensitized Solar Cells**
YongHo Jung¹, WonSeok Choi¹, ByungYou Hong², EunChang Choi²
¹Hanbat National University, ²Sungkyunkwan University
- PV-2004 Increase of DSSC Efficiency with the Thin Film Coated Carbon Nanowall Counter Electrode**
Sangjoon Lee¹, Won Seok Choi¹, Eun Chang Choi², Byungyou Hong²
¹Hanbat National University, ²Sungkyunkwan University
- PV-2220 Annealing Effects of Cu₂S Counter Electrodes for CdSe Quantum-dot Sensitized Solar Cells**
Kwang-Soon Ahn, Soo Yong Lee
YeungNam University
- PV-2247 Fabrication and Characterization of the Si Solar Cells with Improved Ohmic Contact by Heavily-Doped n/p/p+ Structure**
Keunjoo Kim, Bhaskar Parida, Jaeho Choi, Gyoungho Lim, Kiseok Kim, Seungil Park, Hyung Yong Ji
Chonbuk National University
- PV-2317 Photoluminescence Analysis of Cu(In,Ga)Se₂ Thin Film Solar Cells**
Dohyun Baek, Byoungdeog Choi, Jaehyeong Lee
Sungkyunkwan University
- PV-2383 Tabrication of Dye-sensitized Solar Cells by using of Carbon Nanowall Counter Electrude**
Sung Yun Kim¹, Byungyou Hong², Eun Chang Choi², Ju Mi Kim³, Jae Hyung Jang¹, Won Seok Choi¹
¹Hanbat National University, ²Sungkyunkwan University, ³Electronics and Telecommunications Research Institute
- PV-2911 Synthesis of CZTS Nano Powders by Thermal Decomposition for Low Cost Solar Cell Fabrication**
SooHo Lee¹, Dohyun Baek¹, Junsin Yi¹, Joontae Song¹, Yongseob Park², Joongpyo Shim³, Jaehyeong Lee¹
¹Sungkyunkwan University, ²Chosun College of Sci. & Tech., ³Kunsan National University
- PV-2955 Growth and Characterization of AZO Thin Film on Flexible Substrate for Low Cost Applications**
Moonsoo Seo¹, Joongkyu Kim¹, Dohyun Baek¹, Joontae Song¹, Yongseob Park², Wonseok Choi³, Jaehyeong Lee¹
¹Sungkyunkwan University, ²Chosun College of Sci. & Tech., ³Hanbat National University
- PV-3846 Selective Transmission Structure with Transition Metal Oxides for Transparent Silicon-based Solar Cells**
Seung-Yun Lee¹, Jung Wook Lim²
¹Hanbat National University, ²ETRI
- PV-4551 Modeling and Simulation for Optimal Design with Low Oxygen Concentration in a Czochralski-grown Single Crystal Si Ingot**
YuJin Jung, Jae Hak Jung
Yeungnam University

Advanced Materials for Fuel Cell Technology (FC)

Oral Presentation

Nov. 12, 2013 (Tue.)

FC-1 (Advanced Materials for Fuel Cell Technology 1)

301

Chairs : Prof. Soo-Kil Kim (Chung-Ang University)

13:00-14:30

Prof. Yong Tae Kim (Pusan National University)

FC-2409 Investigation of Phosphoric Acid Adsorption Characteristics and Oxygen Reduction Reaction on Electrocatalysts using Electrochemical Method and in-situ XAS

13:00-13:30

Invited Speech

Hee-Young Park¹, Sung Jong Yoo¹, Hyung Chul Ham¹, Dong-Hee Lim¹, Soo-Kil Kim², Hyoung-Juhn Kim¹, EunAe Cho¹, Dirk Henkensmeier¹, Suk Woo Nam¹, Tae-Hoon Lim¹, Jong Hyun Jang¹

¹Korea Institute of Science and Technology (KIST), ²Chung-Ang University

FC-0369 Electronic Effect on Oxidation of Formic Acid on Supported Pd-Cu Bimetallic Surface

13:30-14:00

Invited Speech

Shuozhen Hu, Louis Scudiero, Su Ha

Washington State University

FC-3994 Glucose Fuel Cells Fabricated on Flexible Polymer Films

14:00-14:15

Koide Syouhei, Yudai Hukushi, Mogi Hiroshi, Sano Ryouhei, Sasaki Tubasa, Nishioka Yasushiro
Nihon University

FC-0513 Low-cost Membrane and Electrode Materials for Alkaline Fuel Cells

14:15-14:30

Yogeshwar Sahai, Jia Ma

The Ohio State University

Nov. 12, 2013 (Tue.)

FC-2 (Advanced Materials for Fuel Cell Technology 2)

301

Chairs : Dr. Jong Hyun Jang (Korea Institute of Science and Technology)

15:00-16:30

Prof. Su Ha (Washington State University)

FC-1047 Enhanced Oxygen Reduction Activity of Platinum Monolayer Shell Nano-structured Electrocatalysts

15:00-15:30

Invited Speech

YongMan Choi¹, Kurian A. Kuttiyiel², Gu-Gon Park³, Tae-Hyun Yang³, Kotaro Sasaki², Ping Liu², Radoslav R. Adzic²

¹SABIC Technology Center, ²Brookhaven National Laboratory, ³Korea Institute of Energy Research

FC-2727 Pt-Pd Alloy Nanoparticles Deposited Electrochemically on Reduced Graphene Oxide Sheet as a Good Electro-catalyst for Ethanol Oxidation

15:30-15:45

Md. Faruk Hossain, Jae Y. Park

Kwangwoon University

FC-3910 S-doped ZnO Nanorods on Stainless-steel Mesh as Immobilized Hierarchical Photocatalysts for Photocatalytic H₂ Production

15:45-16:00

Mu-Hsiang Hsu, Chi-Jung Chang
Feng Chia University

FC-3917 Development of Composite Electrodes in the Protonic Ceramic Fuel Cell by using the Infiltration Method Operating at the Intermediate Temperatures

16:00-16:15

Sang-Hyun Song, Sung-Eun Yoon, Jaewon Choi, Jong-Sung Park
Myongji University

FC-3968 Preparation of Platinum/Ceria Catalysts from Metal Complexes using in Steam Methane Reforming for Hydrogen Gas Production

16:15-16:30

Worawat Wattanathana¹, Chatchai Veranitisagul², Nattamon Koonsaeng¹, Navadol Laosiripojana³, Apirat Laobuthee¹
¹Kasetsart University, ²Rajamangala University of Technology Thanyaburi, ³King Mongkut's University of Technology Thonburi

Nov. 13, 2013 (Wed.)

FC-3 (Advanced Materials for Fuel Cell Technology 3)

301

Chairs : Dr. Jens Oluf Jensen (Danish Technical University)
Prof. Yogeshwar Sahai (The Ohio State University)

09:00-10:00

FC-3102 Development of LSM-based Composite Materials used as SOFC Cathode Support by Employing Various Sintering Inhibitors

09:00-09:15

Bilal Ahmed, Seungbok Lee, Rak-Hyun Song, Jong-Won Lee, Tak-Hyoung Lim, Seok-Joo Park
KIER

FC-3949 A Facile TEA Sol-Gel Method for Preparing Perovskite BaZrO₃-based Materials as Potential Application for Electrolyte Membrane in SOFC

09:15-09:30

Suttiruk Salaluk¹, Apirat Laobuthee¹, Chatchai Veranitisagul², Nattamon Koonsaeng¹
¹Kasetsart University, ²Rajamangala University of Technology Thanyaburi

FC-1564 Performance and CO Production Characteristics of Reverse Water-Gas Shift Reaction on Ni-YSZ Cathode Cermets of Solid-oxide Electrolysis Cells

09:30-09:45

Kiyong Ahn, D. Hari Prasad, Young Hoon Kim, Soo-Young Cho, Sun-Young Park, Kyung Joong Yoon, Ji-Won Son, Byung-Kook Kim, Hae-Weon Lee, Jong-Ho Lee
Korea Institute of Science and Technology

FC-3670 Effect of Defect on Zirconium-Doped Titanium (IV) Oxide Fibers Prepared by Electrospinning Techniques for Photocatalytic Hydrogen Evolution

09:45-10:00

Jerawut Kaewsane¹, Pitt Supaphol², Varong Pavarajarn²
¹King Mongkut's University of Technology Thonburi, ²Chulalongkorn University

FC
Oral

Nov. 13, 2013 (Wed.)

FC-4 (Advanced Materials for Fuel Cell Technology 4)

301

Chairs : Prof. HaeKyoung Kim (Yeungnam University)

13:00-14:30

Dr. Hans Aage Hjuler (Danish Technical University)

FC-0367 High Temperature Polymer Fuel Cells: from the Laboratory Towards Commercialization

13:00-13:30

Invited Speech

Hans Aage Hjuler, T. Steenberg, C. Terkelsen, J. Hinke, S.A. Spiegelhauer, H. R. Garcia, S. M. Alfaro, T. Allward
Danish Power Systems

FC-3620 High Temperature PEM Fuel Cells and Electrolyzer

13:30-14:00

Invited Speech

Jens Oluf Jensen¹, Qingfeng Li¹, Erik Christensen¹, Anton Vassiliev¹, Lars N. Cleemann¹, Jingshuai Yang², David Aili¹, Niels J. Bjerrum¹
¹Technical University of Denmark, ²Northeastern University

FC-0269 Quaternized-Chitosan-Based Anion Exchange Membranes with Interpenetrating Networks

14:00-14:15

Jilin Wang, Quantong Che, Ronghuan He
Northeastern University

FC-0643 Refractory Metal Phosphates as Proton Conducting Electrolytes for Intermediate Temperature Fuel Cells and Electrolysers

14:15-14:30

Qingfeng Li, Jens Oluf Jensen, Yunjie Huang, Erik Christensen, Lars N Cleemann, Niels J Bjerrum
Technical University of Denmark

Nov. 13, 2013 (Wed.)

FC-5 (Advanced Materials for Fuel Cell Technology 5)

301

Chair : Prof. Byungchan Han (Daegu Gyeongbuk Institute of Science and Technology)

15:00-16:45

FC-0452 Strain, Ligand and Bifunctional Effect in Metal/Metal Oxide Interface on Electrocatalysis

15:00-15:30

Invited Speech

Junhyuk Kim, Shinae Park, Bohyun Choi, Yong-Tae Kim
Pusan National University

FC-0516 First Principles Computational Discovery of Highly Functional Catalysts for Fuel Cell Application

15:30-16:00

Invited Speech

Byungchan Han¹, Joonkyo Seo¹, Seunghyo Noh¹, Minho Seo¹, Inhye Kwon², Abhishek Khetan³
¹DGIST, ²LG Chem., ³RWTH Aachen

FC-1432 Coating on Zinc Surface to Improve the Electrochemical Behavior of Zinc Anodes for Zinc-air Fuel Cell

16:00-16:15

Hong Shin Kim, Yong Nam Jo, Robert Ilango, Chang Woo Lee
Kyung Hee University

FC-3492 Palladium-gold-carbon Catalysts for Hydrogen Electrooxidation: From Model Catalytic Systems to Real Supported Catalysts

16:15-16:30

Pavel Pyrjaev¹, Alexander Simonov², Boris Moroz¹, Valentin Parmon¹, Valerii Bukhtiyarov¹
¹Borckov Institute of Catalysis, ²Monash University

FC-1418 Preliminary Studies of the Zn Anode for Hydraulic Zn/Air Systems

16:30-16:45

Yong Nam Jo, Hong Shin Kim, Robert Ilango, Won Jong Lee, Chang Woo Lee
Kyung Hee University

Nov. 12, 2013 (Tue.)

FC-1 (Advanced Materials for Fuel Cell Technology 1)

Conference Room Lobby

Chairs : Prof. Yong Tae Kim (Pusan National University)

16:30-18:00

Dr. Gu-Gon Park (Korea Institute of Energy Research)

FC-2293 Transition Metal Alloy Catalysts for Hydrogen Production via Alkaline Water Electrolysis

Sung Hoon Hong, Jihui Choi, Ji-Eun Lim, Soo-Kil Kim

Chung-Ang University

FC-2470 High Performance Alkaline Polymer Composite Electrolyte Membranes for Metal-air Electrochemical Cells

Gwomei Wu

Chang Gung University

FC-2476 Preparation of La/Co/Ni-based Anode for Direct Biogas-fueled Solid Oxide Fuel Cells

Sanghyun Hong, Trieu Tuan Anh, HyonHee Yoon

Gachon University

FC-2573 Effect of Copper Alloying on Sulfur Poisoning of Nickel Surfaces via ab-initio Thermodynamics Calculations

Ji-Su Kim¹, Byung-Kook Kim², Yeong-Cheol Kim¹

¹Korea University of Technology and Education, ²Korea Institute of Science and Technology

FC-2588 Molecular Dynamic Simulation on the Ionic Conductivities of LaInO₃ doped with Ba and Sr

Kukjin Hwang¹, Miyoung Yoon², Seongmin Jeong¹, Haejin Hwang²

¹Korea Institute of Ceramic Engineering and Technology, ²Inha University

FC-2664 Reaction Kinetics and Chemistry Study on Carbon-supported Pt and PtRu Catalysts for Electrooxidation of Glycerol in Acidic Conditions

Sung Mook Choi¹, Hyung Ju Kim², Seong Bong Yim¹, Joo-Yul Lee¹, Won Bae Kim³

¹Korea Institute of Materials Science, ²University of Wisconsin, ³Gwangju Institute of Science and Technology

FC-2700 Nanocomposite Membranes with Phosphonic Acid for High Temperature PEMFC

Tae Yung Youn, Sang Woo Kim, Lee Jin Ghil, Wee Hoo Rhee

Sogang University

FC-2765 Performance Improvement of thin Pd-Ag Alloy Membranes Manufactured by advanced Multilayer-sputter Deposition and Ag up-filling Process

Jun-Hyung Lee¹, Gyeong-Tak Park¹, Sang-Ho Kim², Dong-Won Kim¹

¹Kyonggi University, ²Korea University of Technology & Education

FC-2826 Sintering Behavior of Gd-doped Ceria with the Addition of Li Salt

Yeong-Eun Lee¹, Jung-A Lee¹, Joon-Hyung Lee¹, Young-Woo Heo¹, Jae-Yuk Kim², Jeong-Joo Kim¹

¹Kyungpook National University, ²SSangyong Materials Corp.

FC-3036 Effect of CO₂ Activation of Microporous Carbons Synthesized by Calcium Citrate for Hydrogen Storage

Seul-Yi Lee¹, Min-Kang Seo², Soo-Jin Park¹

¹Inha University, ²Korea Institute of Carbon Convergence Technology

FC-3218 ALD Assisted TiO₂ Coating on Ni Anode for Carbon Tolerant Solid Oxide Fuel Cells

Jae Layng Park¹, Young Dok Kim², Sunghyun Uhm¹

¹Institute for Advanced Engineering, ²Sungkyunkwan University

FC-3240 The Catalytic Activity of Sputtered Iron Linked with Graphite on Carbon Paper in PEMFC

Ki-Seong Lee¹, Minku Lee², Tae-Wan Hong³, Whan-Gi Kim⁴, Hyun-Chul Ju⁵, Dong Min Kim¹

¹Hongik University, ²Korea Atomic Energy Research Institute, ³Korea National University of Transportation, ⁴Konkuk University, ⁵Inha University

FC-3241 Analysis of the RF-Sputtered GDC Thin Film for the Micro Solid Oxide Fuel Cells using Electrochemical Impedance Spectroscopy

Young-Ku Jin, Subrata Sarker, Hyun Woo Seo, Ki-Seong Lee, Dong Min Kim

Hongik University

FC-3411 Effective Thickness of Ni-YSZ combined with Ni-GDC Support for Thin YSZ Electrolyte based Solid Oxide Fuel Cells

Jinyi Choi, Byeongseok Kim, Dongwook Shin

Hanyang University

FC-3587 Porosity Control in SOFC Anode and Cathode for Their Electric Properties

Jung-Cheol Lee¹, Dong-Hun Yeo², Hyo-Soon Shin², San Nahm¹, Joon-Tae Song³

¹Korea University, ²Korea Institute of Ceramic Engineering and Technology, ³Sungkyunkwan University

FC-3591 Electrochemical Reduction of Carbon Dioxide for Fuel Production

Jihui Choi¹, Hak-Yoon Kim², Sung Hoon Hong¹, Ji-Eun Lim¹, Hyungbin Son¹, Jong Hyun Jang², Soo-Kil Kim¹

¹Chung-Ang University, ²Korea Institute of Science and Technology

FC-3604 Fabrication and Characterization of Anode and Cathode in Laminated Planar SOFC

Won-Jun Lee¹, Dong-Hun Yeo², Hyo-Soon Shin², Dea-Yong Jeong¹, Joon-Tae Song³

¹Inha University, ²Korea Institute of Ceramic Engineering & Technology, ³Sungkyunkwan University

FC-3749 Improvement of Electrochemical and Mechanical Durability of the Sulfonated Poly (arylene ether sulfone) Membrane for Polymer Electrolyte Fuel Cells

Woo-jong Sim, Young-woo Choi, Chang-soo Kim, Young-Gi Yoon

Korea Institute of Energy Research

FC-3913 Ce-doped ZnS(1-x)Ox Nanoparticles as Photocatalyst for Effective Photocatalytic Hydrogen Evolution

Chi-Jung Chang, Kuo-Lin Huang

Feng Chia University

FC-3920 The Designed Pore Structures of the Porous Substrate for the Anode Supported Fuel Cell and Its Effects on the Electrode Performances
Sung-Eun Yoon, Sang-Hyun Song, Jaewon Choi, Jong-Sung Park
Myongji University

FC-3930 The Effects of the Amount of ZnO on the Sinterability and the Proton Conductivity of the Y-doped Ba(Ce,Zr)O₃
Jaewon Choi, Sang-Hyun Song, Sung-Eun Yoon, Jong-Sung Park
Myongji University

FC-4046 Valence Change-property Relationship of Ti-doped (Sm_{0.5}Sr_{0.5})CoO₃ Cathode Material for Solid Oxide Fuel Cells
Mi-Young Kim¹, Young-Woo Heo¹, Jeong-Joo Kim¹, Jae-Yuk Kim², Joon-Hyung Lee¹
¹Kyungpook National University, ²Ssangyong Materials Corp.

FC-4195 Characterization of PEMFC Performance Decay Due to Various Operating Conditions
Min Kyung Cho¹, Young-Gon Yoon¹, Sehkyu Park², Insoo Choi¹, Jonghee Han¹, Hyoung-Juhn Kim¹, EunAe Cho¹, Henkensmeier Dirk¹, Sung Jong Yoo¹, Yung-Eun Sung³, Suk Woo Nam¹, Tae-Hoon Lim¹, Jong Hyun Jang¹
¹Korea Institute of Science and Technology (KIST), ²Kwangwoon University, ³Seoul National University

FC-4213 Development and Electrochemical Characterizations of Membrane-electrode Assemblies (MEA) for High-temperature PEMFCs and Hydrogen Pumps
Soo Jin Kim¹, Min Kyung Cho¹, Hee-Young Park¹, Insoo Choi¹, Hyoung-Juhn Kim¹, EunAe Cho¹, Henkensmeier Dirk¹, Sung Jong Yoo¹, Sung Hyun Kim², Yung-Eun Sung³, Suk Woo Nam¹, Tae-Hoon Lim¹, Jong Hyun Jang¹
¹Korea Institute of Science and Technology (KIST), ²Korea University, ³Seoul National University

FC-4264 The Effects of Carbon Nanotubes in Porous Ni/Al₂O₃ Substrates for Planar Solid Oxide Fuel Cell Derived from Particle Stabilized Emulsions
Jin-hong Li, Xiang Wang, Wei-min Guan, Hong-wei Zhao
China University of Geosciences

Nov. 13, 2013 (Wed.)

FC-2 (Advanced Materials for Fuel Cell Technology 2)

Conference Room Lobby

Chairs : Dr. Dirk Henkensmeier (Korea Institute of Science and Technology)
Prof. Jin-Soo Park (Sangmyung University)

16:30-18:00

FC
Poster

FC-0300 Estimation of Hydrogen-induced Mechanical Degradations in a Pipeline Steel
Yun-Hee Lee, Jong Seo Park, Unbong Baek, Hae Moo Lee, Seung Hoon Nahm
Korea Research Institute of Standards and Science

FC-0401 Nafion Membranes with a Porous Surface for PEMFC Operation at Low Relative Humidity
Quoc Khanh Dang, Dirk Henkensmeier, N. Nambi Krishnan, Jong Huyn Jang, Hyoung-Juhn Kim
Korea Institute of Science and Technology

FC-0465 Syntheses and Characterization of Fe-doped LaSrMnO₃ Nanopowders as Interconnect Materials in SOFC
Juyeon Yun, Chiwook Cho, Changyoon Kim, Weonpil Tai
Ulsan Technopark

FC-0698 Measurement of Hydrogen Chemical Potential in Proton Conducting Electrolyte, Anode-supported Solid Oxide Fuel Cells

Myung-Geun Jung, Mi-Young Park, Gwon Deok Seo, Chan Hwi Kim, Hyun Kyu Kang, Min Ki Jun, Hyung-Tae Lim
Changwon National University

FC-0732 Ni-Fe Layer in an Anode Support for Internal Reforming of Methane for Solid Oxide Fuel Cells

Haekyoung Kim¹, Young Min Park²
¹Yeungnam University, ²Research Institute of Industrial Science and Technology

FC-0811 Anion Conducting Membranes based on Polybenzimidazolium

Dirk Henkensmeier, Hyeongrae Cho, Hyoung-Juhn Kim
Korea Institute of Science and Technology

FC-0821 The Study of Impurity Control for High Conductivity of a NASICON-type Lithium Ion Conductor

Minho Lee¹, Jeehoon Kim², Seungwook Eom¹
¹Korea Electrotechnology Research Institute, ²Gyeongsang National University

FC-1160 Effect of Alumina Filler on the Electrical Properties of Alkali/Alkaline-Earth Borosilicate Fuel Cell Sealing Glasses

Dong-Hoon Jang, Bong-Soo Kim, Sung Park, Jae Chun Lee
Myongji University

FC-1305 Facile Fabrication of YSZ/GDC Multi-layers and Its Property as SOFC Electrolytes

Jung Hoon Park^{1,2}, Wan-Shick Hong², Jong-Ho Lee¹, Kyung Joong Yoon¹, Hae-Weon Lee¹, Ji-Won Son¹
¹Korea Institute of Science and Technology, ²University of Seoul

FC-1616 Fabrication of Anode-supported Protonic Ceramic Fuel Cells (PCFCs) with Ba(Zr_{0.84}Y_{0.15}Cu_{0.01})O_{3-δ}-Ba(Ce_{0.9}Y_{0.1})O_{3-δ} Dual-layer Electrolyte

Sung Min Choi^{1,2}, Jong-Heun Lee², Hyegsoon An^{1,3}, Kyung Joong Yoon¹, Ji-Won Son¹, Byung-Kook Kim¹, Hae June Je¹, Hae-Weon Lee¹, Jong-Ho Lee¹
¹Korea Institute of Science and Technology, ²Korea University, ³Hanyang University

FC-1705 Improving Electrochemical Performance and Stability of O₂ Electrode of Solid Oxide Electrolysis Cells(SOECs) by Infiltration of Nano-sized Catalysts

Jeonghee Kim^{1,2}, D. Hari Prasad¹, Dong Wook Shin², Ji-Won Son¹, Jong-Ho Lee¹, Byung-Kook Kim¹, Hae-June Je¹, Hae-Weon Lee¹, Kyung Joong Yoon¹
¹Korean Institute of Science and Technology, ²Hanyang University

FC-1837 Fabrication and Performance Characterization of Palladium-based Cermet Membranes for Hydrogen Separation

Bo-young Kim^{1,2}, Jong-heun Lee², Kyung Joong Yoon¹, Young Whan Cho¹, Byung-Kook Kim¹, Hae-Weon Lee¹, Jong-Ho Lee¹
¹Korea Institute of Science and Technology, ²Korea University

FC-1852 Synthesis and Properties of Sulfonated Polyphenylene Containing Fluorine Moiety via Nickel Catalyzed C-C Coupling Polymerization

Seongyoung Choi, Youngdon Lim, Soonho Lee, Jinseong Lim, Sangyoung Lee, Whangi Kim
Konkuk University

FC-1855 Durable Ultralow Active Metal Decorated Porphyrinic Carbon Electrocatalysts for Oxygen Reduction Reaction (ORR) in Polymer Electrolyte Fuel Cells

Sun-Mi Hwang¹, Sang Youn Jeon¹, Sang Hoon Joo², Tae-Hyun Yang¹, Gu-Gon Park¹
¹*Korea Institute of Energy Research*, ²*Ulsan National Institute of Science and Technology*

FC-1861 Fabrication of Highly Durable Catalyst Supports for Polymer Electrolyte Fuel Cells

Didem C. Dogan^{1,2}, Tae-Hyun Yang¹, Gu-Gon Park^{1,2}
¹*Korea Institute of Energy Research*, ²*University of Science & Technology*

FC-1867 Synthesis and Characterization of Anion Conductive Ionomer Polyphenylene Membrane Containing Benzophenone Moiety for Alkaline Fuel Cell Application

Md. AwladHossain, Youngtae Jeon, Youngdon Lim, Hohyoun Jang, HyunhoJoo, Younggil Cho, Whangi Kim
Konkuk University

FC-2042 Potentiality of BaCeO3-BaZrO3 Solid Solutions (BCZYs) as a High Performance Electrolyte of Protonic Ceramic Fuel Cells (PCFCs)

Hyegsoon An^{1,2}, Dongwook Shin¹, Sung Min Choi², Kyung Joong Yoon², Ji-Won Son², Byung-Kook Kim², Hae June Je², Hae-Weon Lee², Jong-Ho Lee²
¹*Hanyang University*, ²*Korea Institute of Science and Technology*

FC-2270 Morphology Control of Ag Core/ (Au, Pd, or Pt) Shell Metal Nanoparticles for Hydrogen Production from Formic Acid

Hansoo Park
Chung-Ang University

FC-3849 Liquid Phase Assisted Densification and Adhesion Characteristics of Co and Gd co-doped CeO2 Ceramics on 8YSZ Substrate

Bo-Kyung Kang¹, Ho-Young Lee¹, Young-Woo Heo¹, Jeong-Joo Kim¹, Ho Seong Lee¹, Jong-Heun Lee², Jae Yuk Kim³, Joon-Hyung Lee¹
¹*Kyungpook National University*, ²*Korea University*, ³*Ssangyong Materials Corp.*

FC-4124 Effect of Proton Exchanging Time on Performance of Membrane-electrode Assemblies for Sulfonated Poly(ether ether ketone) Membranes

Young-Jun Byun¹, Mun-Sik Shin¹, Dong-Hoon Lee², Han-Moon Cho², Moo-Seok Lee², Young-Woo Choi³, Jin-Soo Park¹
¹*Sangmyung University*, ²*Kolon Central Research Park*, ³*Korea Institute of Energy Research*

FC-4175 Novel Formation Method and Durability of Crosslinked Quaternized Poly(vinyl alcohol) as Ionomer Binder for Anion-exchange Membrane Fuel Cells

Mun-Sik Shin¹, Young-Jun Byun¹, Young-Woo Choi², Moon-Sung Kang¹, Jin-Soo Park¹
¹*Sangmyung University*, ²*Korea Institute of Energy Research*

FC-4496 Silicon Carbide Fiber Reinforced Composites Membrane for High Temperature and Low Humidity Polymer Exchange Membrane(PEM) Fuel Cells

Tae-Eon Kim^{1,2}, So Me Juon², Jeong Ho Park², KwangYeon Cho¹, Yong-Gun Shul²

¹The Korea Institute of Ceramic Engineering and Technology, ²Yonsei University

FC-4500 Improved Performance of Functionalized-graphene Nanoplatelets (GnPs) Composites Membrane by Phosphoric Acid for High-temperature Polymer Electrolyte Membrane (HT-PEM) Fuel Cells

So Me Juon¹, Tae-Eon Kim¹, Kwang Yeon Cho², Dae Hwan Park¹, Yong Il Cho¹, Jeong Ho Park¹, Yong-Gun Shul¹

¹Yonsei University, ²The Korea Institute of Ceramic Engineering and Technology

Energy Storage Materials and Devices (ES)

Oral Presentation

Nov. 12, 2013 (Tue.)

ES-1 (Energy Storage Materials and Devices 1)

302

Chair : Prof. Do Kyung Kim (Korea Advanced Institute of Science and Technology)

09:00-10:15

ES-4539 Challenges Facing Electrode Materials for Lithium Batteries

09:00-09:30 Jaephil Cho

Invited Speech UNIST

ES-2097 Morphological Effects on Electrochemical Properties of Anatase-TiO₂ Nanotubes as Anode for Li-ion Batteries and Its Reversible Phase Transformation upon Li in-/desertion

09:30-09:45

Hyunjung Shin, Myungjun Kim, Sorae Lee, Hyunchul Kim, Seonhee Lee, Shulan An, Yunjeong Yang, Hyunjun Yoo, Jubong Lee, Seulky Lim, Seongrok Seo
Sungkyunkwan University

ES-1615 Enhancement of Thermal Insulation Performance with Phase Change Material for Thermal Batteries

09:45-10:00

Jae-In Lee, Hyung-sool Lee, Kiyoul Kim, Hae-Won Cheong, Sung-Baek Cho
Agency for Defense Development

ES-1604 The Characteristics of Artificial Solid-electrolyte Interphase Layer in C₆₀-coated SnO₂: F Anode Material of Lithium-ion Batteries

10:00-10:15

Chairul Hudaya, Ji Hun Park, Wonchang Choi, Joong Kee Lee
Korea Institute of Science and Technology

Nov. 12, 2013 (Tue.)

ES-2 (Energy Storage Materials and Devices 2)

302

Chair : Prof. Hyunjung Shin (Sungkyunkwan University)

13:00-14:45

ES-4448 Next Generation Materials for Rechargeable Batteries

13:00-13:30 Riccardo Ruffo

Invited Speech *University of Milano Bicocca*

ES-3412 Effect of Oxygen Functional Groups on Electrochemical Characteristics of Partially reduced Graphene Oxide Electrode for a Thin-film Supercapacitor

13:30-13:45

Young Joon Oh¹, Jung Joon Yoo², Yong Il Kim², Jae Kook Yoon², Seung Bin Park¹, Un Jo³, Ha Na Yoon², Jong-Huy Kim²

¹Korea Advanced Institute of Science and Technology, ²Korea Institute of Energy Research,

³Chungnam National University

ES-0706 Electrochemical Performance of Li₃V₂(PO₄)₃/carbon Composite Cathode for Li-ion Battery

13:45-14:00

Shulan Wang¹, Huiqing Liu¹, Xuan Liu², Li Li²¹Northeastern University, ²Carnegie Mellon University**ES-1440 The Effects of Inorganic Salts on the Morphological, Structural and Electrochemical Properties of Prepared Li[Ni_{0.6}Co_{0.2}Mn_{0.2}]O₂**

14:00-14:15

Ki Jae Kim, Yong Nam Jo, Won Jong Lee, Thiruvengadam Subburaj, Chang Woo Lee

*Kyung Hee University***ES-0785 Nanostructured Cobalt Oxides: Shape-Controlled Synthesis and Application as a Carbon-Free Cathode for Lithium-Oxygen Batteries**

14:15-14:30

Jong-Won Lee, Kyu-Nam Jung, Ahmer Riaz, Seung-Bok Lee, Tak-Hyoung Lim, Seok-Joo Park, Rak-Hyun Song, Kyung-Hee Shin

*Korea Institute of Energy Research***ES-1537 Defect and Chelator-free Solvothermal Synthesis of Microspherical Mesoporous LiFePO₄/C**

14:30-14:45

Min-Young Cho¹, Hae Woong Park¹, Kwang-Bum Kim², Jae-Won Lee³, Haegyeom Kim⁴, Hyungsub Kim⁴, Kisuk Kang⁴, Kwang Chul Roh¹¹Korea Institute of Ceramic Engineering & Technology, ²Yonsei University, ³Dankook University,⁴Seoul National University*Nov. 12, 2013 (Tue.)***ES-3 (Energy Storage Materials and Devices 3)**

302

Chairs : Dr. Sungwoo Yang (Massachusetts Institute of Technology)

15:00-16:30

Prof. Shulan Wang (Northeastern University)

ES-3608 A Novel Fluorophosphate-based Cathode Material for Na/Li Rechargeable Batteries

15:00-15:30

Kisuk Kang

Invited Speech

*Seoul National University***ES-3339 Role of Lithium Precursor and Synthesis Condition into Structure and Electrochemical Performance of LiFePO₄**

15:30-15:45

Jae-Kwang Kim¹, Aleksandar Matic², Per Jacobsson², Jou-Hyeon Ahn¹¹Gyeongsang National University, ²Chalmers University of TechnologyES
Oral**ES-2903 Highly ordered Iron Oxide Nanotube Arrays as Anode for High Performance Li-ion Battery**

15:45-16:00

Syed Atif Pervez, Doohun Kim, Jeong-Hee Choi, You-Jin Lee, Chil-Hoon Doh

*Korea Electrotechnology Research Institute***ES-2538 Electrochemical Performance of Rechargeable Li/LiFePO₄ Cells with Ionic Liquid Electrolyte : Effects of Li Salt and Temperature**

16:00-16:15

Chang Jeng-Kuei, Tai-Chou Lee, George Ting-Kuo Fey, Nithinai Wongittharom

National Central University

ES-0788 Electrochemical Performance of Carbon Coated Porous Silicon for Anode Materials in Lithium Ion Batteries

16:15-16:30

Martin Halim¹, Jung Sub Kim², Joong Kee Lee³

¹University of Science and Technology, ²Korea University, ³Korea Institute of Science and Technology

Nov. 13, 2013 (Wed.)

ES-4 (Energy Storage Materials and Devices 4)

302

Chair : Prof. Keehong Um (Hansei University)

09:00-10:30

ES-1043 Graphenes with Metal Organic Frameworks and/or Zeolites for Advanced Thermal Batteries

09:00-09:30

Sungwoo Yang, Hyunho Kim, Shankar Narayanan, Evelyn N. Wang

Invited Speech

Massachusetts Institute of Technology (MIT)

ES-2485 Characteristic of Metallic Bonding Interface and Bonding Strength Measurement using Atomic Force Microscopy

09:30-09:45

Eunmi Choi, Yinhua Cui, Heesoo Choi, Areumi Kim, Sung Gyu Pyo

Chung-Ang university

ES-1444 Investigation on Effects of Vinylene Carbonate(VC) on Thermal Behavior of Li[Ni_{1-x-y}CoxMny]O₂ (1-x-y=0.5, 0.6) at Elevated Temperature(60°C)

09:45-10:00

Won Jong Lee, Kadirvelayutham Prasanna, Yong Nam Jo, Ki Jae Kim, Chang Woo Lee

Kyung Hee University

ES-2899 Fabrication and Characterization of Micro-supercapacitor based on Symmetric Porous Nickel Oxide Electrodes

10:00-10:15

Junli Yin, Jae Yeong Park

Kwangwoon University

ES-0393 Artificial Photosynthesis of Hydrocarbons in Novel Capillary Reactor based on Microsized Tubular TiO₂ Films

10:15-10:30

Amir Abidov, Bunyod Allabergenov, Oybek Tursunkulov, Xiao Feiyi, Sungjin Kim

Kumoh National Institute of Technology

ES
Oral

Nov. 13, 2013 (Wed.)

ES-5 (Energy Storage Materials and Devices 5)

302

Chair : Prof. Riccardo Ruffo (University of Milano Bicocca)

13:00-14:45

ES-2630 Highly Aligned Carbon-coated Sulfur Nanowire for Li-S Rechargeable Batteries

13:00-13:30

San Moon, Young Hwa Jung, Wook Ki Jung, Do Kyung Kim

Invited Speech

Korea Advanced Institute of Science and Technology (KAIST)

127

ES-0389 Locus Analysis of Complex Zeros in Power Systems with Energy Storing Elements Externally Loaded to Skipped Resonators

13:30-13:45

Keehong Um
Hansei University

ES-3630 Si Nanoparticles Encapsulated by 1Dimension ITO Hollow Fiber via Electrospinning for High Performance Lithium Ion Battery Anodes

13:45-14:00

Dongha Kim¹, Daehee Lee¹, Joosun Kim², Jooho Moon¹
¹*Yonsei University*, ²*Korea Institute of Science and Technology*

ES-3261 Tailoring Hierarchical and Porous-CO3O4 Superstructures for Supercapacitor Electrodes; A Bio-mineralization Route at Room Temperature

14:00-14:15

Hyun-Woo Shim, Ah-Hyeon Lim, Jae-Chan Kim, Dong-Wan Kim
Ajou University

ES-1457 Effect of FeS2 Particle Size on Discharge Characteristics of Thermal Batteries

14:15-14:30

Seung-Ho Kang, Jungmin Lee, Tae-Uk Hur, Hae-Won Cheong
Agency for Defense Development

ES-2205 Structural and Electrochemical Characterization of Si – Cu Multilayer Anodes for Thin Film Lithium Batteries

14:30-14:45

Vaishali A Patil¹, Arun R Patil², Seok Jin Yoon³, Ji Won Choi³
¹*VIIIT*, ²*VCACS*, ³*KIST*

Nov. 12, 2013 (Tue.)

ES-1 (Energy Storage Materials and Devices 1)

Conference Room Lobby

Chairs : Prof. Hyunjung Shin (Sungkyunkwan University)
Prof. Riccardo Ruffo (University of Milano Bicocca)

16:30-18:00

ES-1678 Investigation of Aging Processes of Amorphous Silicon Lithium Ion Battery Anodes by Impedance Spectroscopy

Si Hieu Nguyen¹, Jong-Choo Lim¹, Joong-Kee Lee²

¹Dongguk University, ²Korea Institute of Science and Technology

ES-1751 Electrochemical Analysis of Carbon-coated Amorphous LVO in Li-gel Polymer Secondary Battery

Jae Ha Lee¹, Choong Woon Lim¹, Byeong Dae Sohn¹, Dong Won Kim², Woo Young Yoon¹

¹Korea University, ²Hanyang University

ES-1796 Electrochemical Behavior of W-coated Amorphous LiV3O8 Cathode for Li-metal Battery

Choong Woon Lim, Woo Young Yoon, Jae Ha Lee

Korea University

ES-1808 Optical Properties and Electrochemical Performance of the Multi-component Olivine Compound LiMP04O4 (M=Fe, Mn, Ni) Thin Film Deposited by RF Magnetron Sputtering

HyunSeok Lee, Kiyoon Kim, Haena Yim, Ji-Won Choi

Korea Institute of Science and Technology

ES-1850 Electrochemical Behavior of W-coated Silicon Anode Rechargeable Cell

ByeongDae Sohn, WooYoung Yoon

Korea University

ES-1924 Control of the Electrolyte Composition to Improve the Cycleability of Lithium-air Batteries

Jae-Seok Kim, Eunsae Ahn, Yongsuk Tak

Inha University

ES-1927 Effect of Cations on Hydrogen Evolution Reaction in Alkaline Water Electrolysis

Hyejin Choi, Imgon Hwang, Yongsug Tak

Inha University

ES-1929 Effect of Oxalate Ions on the Initial Aluminium Etch Pit Formation

Junsu Lee, Changhyun Park, Yongsug Tak

Inha University

ES-1988 Anode Performance of Lithium-silicon Alloy Prepared by Mechanical Alloying for Lithium Secondary Batteries

Hye-Won Park¹, Jung-Hoon Song², Heekyu Choi¹, Joo Sung Jin¹, Woo Jong Kim¹, Hyung-Tae Lim¹

¹Changwon National University, ²RIST

ES-2076 Fabrication and Characterization of Highly Light Radiative Si Solar Cell with Back Reflection Layer of ITO Thin Film

Kiseok Kim¹, Jaeho Choi¹, Gyoungcho Lim¹, Bhaskar Paridar¹, Seungil Park², Hyungyong Ji², Keunjoo Kim¹
¹Chonbuk National University, ²Korea Institute of Industrial Technology

ES-2103 Pinning Layer Formation by Hydrogen Implantation in N-type Emitter of Si Solar Cells by High Current Gaseous Ion Beam Implanter

Gyoungcho Lim¹, Kiseok Kim¹, Bhaskar Parida¹, Jaeho Choi¹, Jaesang Lee², Younggi Kim², Keunjoo Kim¹
¹Chonbuk National University, ²Korea Atomic Energy Research Institute

ES-2179 Investigation of the Dielectric Properties of Yttrium-doped Ba_{0.96}Sr_{0.04}Zr_{0.04}Ti_{0.96}O₃ Ceramics

Xiaoshan Zhang, Xiaojian Sun, Xiaoyang Chen, Danyang Zhang, Ping Yu
 Sichuan University

ES-2305 Effect of Fibrous Graphite on Electrical and Mechanical Properties of Epoxy/Particulate Graphite/Carbon Fiber Filament Composite

Beom-Cheol Choi, Jae-Young Lee, Hong-Ki Lee
 Woosuk University

ES-2440 Effect of Sulfur Loading on Energy Density of Lithium Sulfur Batteries

Sung-Hwan Kang, Xiaohui Zhao, Jou-Hyeon Ahn
 Gyeongsang National University

ES-2460 SiO₂ Nanoparticles as Absorbents of Lithium Polysulfides for Improved Lithium Sulfur Batteries

Mi-So Kim, Sung-Hwan Kang, Xiaohui Zhao, Jou-Hyeon Ahn
 Gyeongsang National University

ES-2508 Optimized Electrochemical Performance of Li₄Ti₅O₁₂/metal Oxide Composite Anode with High Voltage Plateau and No Volume Change in Lithium-ion Batteries

Jung-Eui Hong, Kwang-Sun Ryu
 University of Ulsan

ES-2602 Investigation of Solid Electrolyte Interface and Its Effect on Cyclic Behavior in Hybrid Supercapacitor

Min-Geun Choi¹, Jungkeun Lee¹, Soohwan Lee¹, Byung Gwan Lee², Dae-Yong Jeong¹, Jung Rag Yoon²
¹Inha University, ²Samwha Capacitor Co. Ltd.

ES-2615 Improvement of Electrochemical Performance of Li₃V₂(PO₄)₃ Cathode Materials by Reduced Graphene Oxide Wrapping

Chek Hai Lim, Young Hwa Jung, Do Kyung Kim
 Korea Advanced Institute of Science and Technology (KAIST)

ES-2644 Hydrogen Permeation Properties of Pd-coated V-Cr Base Alloy Membrane for Carbon Dioxide Capture Process

Jung Hoon Park, Jeong In Han
 Dongguk University

- ES-2650 Energy Storage Property of (K,Na,Li)(Nb,Ta)O₃ based Ceramics by Aerosol Deposition**
Soohwan Lee¹, Jungkeun Lee¹, Min-Geun Choi¹, Junggho Ryu², Dong-Soo Park², Dae-Yong Jeong¹
¹Inha University, ²Korea Institute of Materials Science (KIMS)
- ES-2783 Improvement of Ionic Conductivity of Thin Film Sulfide Glass Electrolyte by Post-heat Treatment Method**
Sung Pil Woo¹, Seung Hyun Jee², Seok Hee Lee¹, Kang Soo Lee¹, Young Soo Yoon²
¹Yonsei University, ²Gachon University
- ES-2858 Effect of Binder and Composition Ratio of Electrode on Electrochemical Performance of Silicon-Graphite Composite as Anode for Lithium-ion Batteries**
Umer Farooq¹, Doohun Kim², Jung-Hee Choi², Chil-Hoon Doh¹
¹University of Science and Technology, KERI Campus, ²Korea Electro-technology Research Institute
- ES-3001 Chemical Treatment of Carbon Felt Electrodes for All Vanadium Redox Flow Batteries**
Min-Sik Park, Seung-Wook Lee, Young-Jun Kim, Ki Jae Kim
Korea Electronics Technology Institute
- ES-3031 EMF Characteristics of Wide Range Current Transformer with Air-gap in Ferromagnetic Core**
Young-Sun Kim, Bo-Sung Choi
Joongbu University
- ES-3038 Torque Characteristic of Induction Motor according to Shape and Material of Conductor Bar**
Young-Sun Kim, Dae-Woong Oh
Joongbu University
- ES-3077 First-Principles Studies of Electrochemical and Thermal Stabilities of Cathode Materials of Li-ion Batteries with High Ni and Mn Compositions**
Junhee Kang, Byungchan Han
DGIST
- ES-3104 Thermal Effects on Surface Structure of Charged Ni-rich Cathode Materials for Li-ion Batteries Studied by TEM-EELS**
Sooyeon Hwang¹, Dong Hyun Kim², Seung Min Kim², Kyung Yoon Chung², Jeong Yong Lee¹, Eric A. Stach³, Wonyoung Chang²
¹Korea Advanced Institute of Science and Technology, ²Korea Institute of Science and Technology, ³Brookhaven National Lab
- ES-3194 Preparation of Li₂MnSiO₄ by Co-precipitation and Its Electrochemical Performances**
Dong-jin Kim, Jae-won Lee
Dankook University
- ES-3264 Electrospun Tin-Cobalt-Carbon Nanofibers for High-Performance Lithium Ion Battery Anodes**
Jae-Chan Kim, Dong-Wan Kim
Ajou University

ES-3279 Electrochemical Characterization of LaMO₃ (M=Co, Mn, Fe, Ni) Perovskite for Zinc-Air Rechargeable Batteries

Kareen Lopez, Joonho Bae, Hyojung Kim, Ho-Jung Sun, Gyungse Park, Joongpyo Shim
Kunsan National University

ES-3299 Hard Carbon Coated Natural Graphite for Anode Material for Li-ion Capacitors

Yong Nam Jo, Jung-Woo Park, Jeom-Soo Kim, Young-Jun Kim
Korea Electronics Technology Institute

ES-3426 1,3-Propanesultone as a Functional Additive for High-Energy Layered Composite Oxide

Taeun Yim, Kyoungjun Lee, June Ho Song, Woosuk Cho, Sang-Gil Woo, Jeom-Soo Kim, Young-Jun Kim
Korea Electronics Technology Institute

ES-3434 Effects on Functional Additives of the Li-S Battery: Enhancement of Chemical Stability of Electrolytes with LiPF₆

Taeun Yim¹, Jisun Lee¹, Min-Sik Park¹, Ji-Sang Yu¹, Ki Jae Kim¹, Geun-Young Im¹, Jae-Hun Kim², Goojin Jeong¹, Sang-Gil Woo¹, Yong-Nam Jo¹, Young-Jun Kim¹
¹*Korea Electronics Technology Institute*, ²*Kookmin University*

ES-3442 Electrochemical Characteristics of Surface-treated Cathode Material with Solid Super Acids for Lithium Ion Battery

Sang-Gil Woo, Jae-Hee Han, Young-Jun Kim, Ji-Sang Yu
Korea Electronics Technology Institute

ES-3528 Rapid Flash Light Annealing of Hydrous Ruthenium Oxide for Supercapacitors

Tae-hee Yoo^{1,2}, Sun-min Kim¹, Jung Ah Lim¹, Jong-Huy Kim³, Byoung-In Sang², Yong-Won Song¹
¹*Korea Institute of Science and Technology*, ²*Hanyang University*, ³*Korea Institute of Energy Research*

ES-3612 Composited Polyaniline-MnO₂ Electrodes for Supercapacitor Application

Patin Tagsin, Samuk Pimanpang, Pawinee Klangtakai, Vittaya Amornkitbamrungk
Khon Kaen University

ES-3739 Novel Pore-filling Membranes with Low Vanadium Co-ion Crossover for Vanadium Redox Flow Batteries

Mi-Soon Lee, Young-Woo Choi, Kyung-Hee Shin, Tae-Hyun Yang
Korea Institute of Energy Research

ES-3743 High Proton Permselective Pore-filling Membranes for Vanadium Redox Flow Batteries

Hyeon-Gu Kang¹, Young-Woo Choi¹, Kyung-Hee Shin¹, Tae-Hyun Yang¹, Jin-Soo Park²
¹*Korea Institute of Energy Research*, ²*Sangmyung University*

ES-3817 First Principles Study on Vanadium Carbonophosphate Li₃VPO₄CO₃ for Cathode Materials of Rechargeable Li-ion Batteries

Diem My (Thi) Duong, Van An Dinh, Takahisa Ohno
National Institute for Materials Science

ES-3925 Fabrication and Characteristics of Li4Ti5O12 Anode Materials with Various Additional Materials for Hybrid Supercapacitor

Seung-Hwan Lee, Hong-Ki Kim, Young-Hie Lee
Kwangwoon University

ES-3960 High Efficiency Silicon Solar Cell Fabrication using Two Step Printing Technology

Sihun Lee, Wonho Son, Jineui Kim, Sieyoung Choi
Kyungbuk National Univeristy

ES-4168 Fabrication of MnO₂ Mixed Multiwall Carbon Nanotube Films by Electrophoretic Deposition for Supercapacitor Application

Pawinee Klangtakai, Anaporn Kunlawong, Samuk Pimanpang, Vittaya Amornkitbamrung
Khon Kaen University

ES-4254 Numerical Analysis and Measurement of Swirling Flow using Ultrasound Velocimetry for Ferrofluid Behavior

Young-Sun Kim
Joongbu University

ES-4260 Preparation and Electrochemical Properties of Sn-M-P (M = Fe, Mn, Ni, Co) Anode for Lithium ion Batteries

Gumjae Park, Jueon Lee, Chulho Lee, Chil-hoon Doh, Sang-Min Lee
Korea Electrotechnology Research Institute

ES-4383 Fabrication and Characteristics of Na Doped Li4Ti5O12 Anode Materials for Hybrid Supercapacitor

Hong-Ki Kim, Seung-Hwan Lee, Young-Hie Lee
Kwangwoon University

ES-4433 Magnesium and Iron Loaded Hollow Glass Microspheres for Hydrogen Storage (HGMs)

Vijayalakshmi Savithri¹, Ko Yeon Choo², Sridhar Dalai¹, Pratibha Sharma¹
¹Indian Institute of Technology, Bombay (IITB), ²Korea Institute of Energy Research

ES-4459 Preparation and Characterization of Carbon Layer-coated Iron Oxides as Enhanced Anode Materials for Li-ion Batteries

Sang-Wha Lee, Gunwoo Kim
Gachon University

Nov. 13, 2013 (Wed.)

ES-2 (Energy Storage Materials and Devices 2)

Conference Room Lobby

Chair : Prof. Do Kyung Kim (Korea Advanced Institute of Science and Technology)

16:30-18:00

ES-0243 Organic Electrolyte Composition for Use in Asymmetric Hybrid Capacitor with Wide Operating Temperature Range

Jung Rag Yoon, Byung Gwan Lee
Samwha Capacitor Co. Ltd

ES
Poster

ES-0274 Synthesis and Lithium Electrochemical Properties of LiMnB03

Jung-Won Park, Hyukjae Lee
Andong National University

ES-0711 Electrochemical Behaviors of Carbon-coated Niobium Dioxides as a Novel Negative Electrode Material in Lithium Secondary Batteries

Yong Hoon Cho¹, Yang-Soo Kim², Soon-Ki Jeong¹
¹Soonchunhyang University, ²Korea Basic Science Institute

ES-0795 Effects of High Temperature Heating on the Crystallization of Semi-amorphous Boron Powder

Byung Youn You¹, Soon-Dong Park¹, Seung Yeon Park^{1,2}, Chan-Joong Kim¹
¹Korea Atomic Energy Research Institute, ²Sungkyunkwan University

ES-0840 Growth of GdBa2Cu307-x Grain in Top-seeded Melt Processed Gd1.5Ba2Cu30x with Ag Additions

Seung Yeon Park¹, Byung Youn You¹, Soon-Dong Park¹, Byung-Hyuk Jun¹, Jinho Joo², Chan-Joong Kim¹
¹Korea Atomic Energy Research Institute, ²Sungkyunkwan University

ES-0888 Effects of Ag Wire Addition on the Microstructure of Single Grain GdBa2Cu307-y Bulk Superconductors

Soon-Dong Park, Byung-Hyuk Jun, Chan-Joong Kim
Korea Atomic Energy Research Institute

ES-0890 Electrochemical Performances of Fluorine Substituted on 0.3Li2MnO3-0.7LiMn0.60Ni0.25Co0.1502 Cathode Materials

Seon-Min Kim¹, Bong-Soo Jin¹, Gum-Jae Park¹, Suk-Joon Park², Hyun-Soo Kim¹
¹Korea Electrotechnology Research Institute, ²ECOPRO Ltd

ES-0897 Electrochemical Performances of the Doped Li3V2-XXM(X(P04)3/C Cathode Material for Lithium Secondary Battery

Minchan Jeong¹, Mansoo Choi¹, Hyun-Soo Kim¹, Dong-Sik Bae², Bong-Soo Jin¹
¹Korea Electrotechnology Research Institute, ²Changwon National University

ES-0902 Electrochemical Performances of the Acid-treated 0.3Li2MnO3-0.7LiMn0.60Ni0.25Co0.1502 Cathode Materials for Li-Ion Batteries

Mansoo Choi^{1,2}, Bongsoo Jin¹, Jik-Soo Kim³, Suk-Joon Park³, Young Moo Lee², Hyun-Soo Kim¹
¹Korea Electrotechnology Research Institute, ²Hanyang University, ³ECOPRO Ltd

ES-0927 Improving the Electrochemical Properties of LiNi0.5Mn1.5O4 Cathode Material for Li-Ion Batteries by Li4Ti5O12 Coating

Gumjae Park¹, Bong-Soo Jin¹, Man-Su Choi¹, Seon-Min Kim¹, Woo-Seong Kim², Hyun-Soo Kim¹
¹Korea Electrotechnology Research Institute, ²Deajung Energy Materials Co.

ES-0945 Electrochemical Properties of Porous Nano Carbon as Electrodes for Energy Storage Devices

Sun-Hwa Yeon¹, Ahn Wook², Sungnam Lim³, Hyun-Seop Shin¹, Kyoung-Hee Shin¹
¹Korea Institute of Energy Research, ²Yonsei University, ³KAIST

- ES-1080 Highly Active and Bifunctional La-Ni-Oxide based Layered Perovskite Electrocatalyst for Metal-Air Batteries**
Kyu-Nam Jung, Jong-Won Lee, Sukeun Yoon, Kyung-Hee Shin
Korea Institute of Energy Research
- ES-1098 Superconducting Properties of in Situ Processed MgB₂ Bulk Superconductors with Fe Additions**
Hyeondeok Jeong¹, Byung-Hyuk Jun², Soon-Dong Park², Byung Youn You², Chan-Joong Kim², Haiwoong Park¹
¹*Korea University of Technology and Education*, ²*Korea Atomic Energy Research Institute*
- ES-1122 Formation of Artificial Holes by Infiltration of Ag Wires in Melt Growth Processed Gd_{1.5}Ba₂Cu₃O_{7-x} Bulk Superconductors**
Yunan Kim¹, Soon-Dong Park², Seung Yeon Park^{2,3}, Byung Youn You², Chan-Joong Kim², Haiwoong Park¹
¹*Korea University of Technology and Education*, ²*Korea Atomic Energy Research Institute*, ³*Sungkunkwan University*
- ES-1152 Fabrication and Characterization of Porous Metal Substrate Filled with Lithium as an Anode for Thermal Batteries**
Yusong Choi, Jae-Seong Yeo, Hye-Ryeon Yu, Seung-Ho Kang, Hae-Won Cheong
Agency for Defense Development
- ES-1165 Disordered Carbon Material of Anode Material by Plasma assisted Thermal Evaporation (c60) for Lithium Ion Battery**
Bong-Jo Kang¹, Jae-Baek Ju², Joong-Kee Lee¹
¹*Korea Institute of Science and Technology*, ²*Hong-Ik University*
- ES-1170 Electrochemical Characteristic of Silicon – Copper Nanocomposite for Anode Material of Lithium Ion Batteries**
Tae-Yong Kim¹, Joong-Kee Lee²
¹*University of Science and Technology (UST)*, ²*Korea Institute of Science and Technology*
- ES-1182 Theoretical Investigation of Hydrogen Adsorption in Be-, Zn- and Cd- Zeolitic Imidazolate Framework-23**
Suphagrid Wongprakarn¹, Jariyanee Prasongkit², Pornjuk Srepusharawoot¹
¹*Khon Kaen University*, ²*Nakhon Phanom University*
- ES-1379 Fabrication of TiO₂ Nanorods/ C0304 Nanowall Hybrid Structure for Electrochemical Supercapacitor Application**
Ananthakumar Ramadoss, Gui-Shik Kim, Sang Jae Kim
Jeju National University
- ES-1390 Amorphous Silicon Nanoparticles synthesized by Inductive Coupled Plasma for Secondary Lithium-ion Battery**
Chun-young Jung, Bo-Yun Jang, Jin-Seok Lee, Joon-Soo Kim
Korea Institute of Energy Research

ES-1469 Effects of Ball Milling on the Crystal Quality of Boron Powders and the Superconductivity of MgB₂ Bulk Superconductors

Seol Hyang Kim^{1,2}, Won Nam Kang², Seung Yeon Park^{1,2}, Byung Youn You¹, Soon-Dong Park¹, Byung Hyuk Jun¹, Chan-Joong Kim¹

¹Korea Atomic Energy Research Institute, ²Sungkyunkwan University

ES-1475 The Influence of Carbon Coating on Anode Side of β -Al₂O₃ Membrane in Sodium-Nickel Chloride (ZEBRA) Battery

Seon-Min Kim, Sang-Min Lee, Hyun-Soo Kim

Korea Electrotechnology Research Institute

ES-1485 Synthesis and Electrochemical Performance of Layered NaNi_{0.5}Mn_{0.5}O₂ as Cathodes for Sodium Ion Batteries

Yongho Lee^{1,2}, Jieun Lee^{2,3}, Dong-Won Kim⁴, Joong Kee Lee², Wonchang Choi²

¹Hanyang University, ²Korea Institute of Science and Technology, ³University Science and Technology, ⁴Hanyang University

ES-1487 Fabrication and Electrochemical Properties of High Capacity 3-D Structured Thin Film Lithium Batteries

Kiyeon Kim¹, Haena Yim¹, HyunSeok Lee¹, Seok-Jin Yoon¹, Bae-Yeon Kim², Ji-Won Choi¹

¹Korea Institute of Science and Technology, ²Incheon National University

ES-1619 Hydriding and Dehydriding Characteristics of Mg-Ni-TaF₅ Alloy Prepared by Reactive Mechanical Grinding

Young Jun Kwak¹, Seong Ho Lee¹, Hye Ryoung Park², Myoung Youp Song¹

¹Chonbuk National University, ²Chonnam National University

ES-1666 Preparation and Characterization of NbF₅-Added Mg Hydrogen Storage Alloy

Seong Ho Lee¹, Young Jun Kwak¹, Hye Ryoung Park², Myoung Youp Song¹

¹Chonbuk National University, ²Chonnam National University

ES-2740 Capture Solar Energy from Asphalt Pavement: A Review

Pan Pan, Shaopeng Wu, Mingyu Chen, Bo Li

Wuhan University of Technology

ES-3288 Real Time Battery Management System for Energy Power Supplies using Coulomb Counting Method

Boonyang Plangklang, Sumonman Niamlang, Sorapong Pavasupree

Rajamangala University of Technology Thanyaburi (RMUTT)

Application Technology for Advanced Electromaterials and Devices (EM)

Oral Presentation

Nov. 14, 2013 (Thu.)

EM-1 (Application Technology for Advanced Electromaterials and Devices 1)

301

Chairs : Dr. Hoon-Kyu Shin (Pohang University of Science and Technology)

09:00-10:30

Prof. Goo-Hwan Jeong (Kangwon National University)

EM-3064 Probing Anisotropic Carrier Transport in Organic Semiconductor Films by using Time-Resolved Microscopic Optical Second Harmonic Imaging

09:00-09:30

Invited Speech

Takaaki Manaka, Mitsumasa Iwamoto

Tokyo Institute of Technology

EM-0683 Load Reduction Method for the Hydro-generator based on Electromagnetic and Permanent Magnetic Levitation Technology

09:30-09:45

Hongzhong Ma¹, Qingyan Wang¹, Ping Ju¹, Haitao Yu²

¹Hohai University, ²Southeast University

EM-0782 Synchrotron X-ray Absorption Spectroscopy and Magnetic Characteristics Studies of Metal Ferrites (Metal = Ni, Mn, Cu) Synthesized by Sol-gel Auto-combustion Method

09:45-10:00

Thanit Tangcharoen¹, Anucha Ruangphanit², Wantana Klysubun³, Wisanu Pecharapa¹

¹King Mongkut's Institute of Technology Ladkrabang, ²Thai Microelectronics Center (TMEC),

³Synchrotron Light Research Institute (SLRI)

EM-1761 A Study on Linearity Compensation of Pressure Level Sensor using Contact Resistance Change

10:00-10:15

Jung-Ho Park¹, Dong-Won Yun¹, So-Nam Yun¹, Young-Bog Ham¹, Dong-Won Lee², Dong-Hwan Lee³

¹Korea Institute of Machinery & Materials, ²Chonnam National University, ³JCAMONTROL Co., Ltd

EM-1448 Fabrication of Nano-structured PbO2 Electrode using Printing Technology: Surface Characterization and Application to Redox Flow Batteries

10:15-10:30

Kannan Karunakaran, Muthuraman Govindan, Gyoujin Cho, Il Shik Moon

Sunchon National University

Nov. 14, 2013 (Thu.)

EM-2 (Application Technology for Advanced Electromaterials and Devices 2)

301

Chairs : Prof. Takaaki Manaka (Tokyo Institute of Technology)

13:00-14:30

Prof. Sang Jeon Hong (Myongji University)

EM-3333 Engineering of Catalytic Metal Nanoparticles toward Diameter-specified Growth of Single-walled Carbon Nanotubes

13:00-13:30

Invited Speech

Goo-Hwan Jeong

Kangwon National University

EM
Oral

EM-2255 Hydrogen Passivation Effect on P-type Hole Emitter Layer in Silicon Solar Cell by Proton Beam Implantation

13:30-13:45

Bhaskar Parida¹, Jaeho Choi¹, Gyoungho Lim¹, Kiseok Kim¹, Keunjoo Kim¹, Jaesang Lee², Yongki Kim²
¹Chonbuk National University, ²Korea Atomic Energy Research Institute

EM-2427 Multilayered Oxide-film Charge-Trapping Memory Device

13:45-14:00

Jiang Yin, Jianxin Lu
 Nanjing University

EM-2895 Implementation of Complementary Resistive Switch (CRS) through Back-to-Back Connection of ITO/v-x/TiO₂/ITO Memristors

14:00-14:15

Sang-Jin Lee¹, Sung-Jin Kim¹, Kyoungrok Cho¹, Kamran Eshraghian²
¹Chungbuk National University, ²iDataMap Corporation

EM-4371 Surface Charge Accumulation on Silicon Rubber Material under DC Voltage in Atmosphere

14:15-14:30

Yan Lang
 Xi'an Jiaotong University

Nov. 14, 2013 (Thu.)

EM-3 (Application Technology for Advanced Electromaterials and Devices 3)

301

Chair : Prof. Guan-Jun Zhang (Xi'an Jiaotong University)

15:00-16:30

EM-2919 Large-scale Controlled Organic Nanowire Printing, Lithography, and Electronics

15:00-15:30

Invited Speech

Sung-Yong Min¹, Tae-Sik Kim¹, Beom Joon Kim², Himchan Cho¹, Yong-Young Noh³, Hoichang Yang⁴,
 Jeong Ho Cho², Tae-Woo Lee¹
¹Pohang University of Science and Technology, ²Sungkyunkwan University, ³Dongguk University,
⁴Inha University

EM-0498 Virtual Metrology for Etch Profile in TSV Fabrication using Optical Emission Spectroscopy

15:30-16:00

Invited Speech

Ja Myung Gu, Sang Jeen Hong
 Myongji University

EM-2511 Improvement of Specific Contact Resistance using n-type Doping Graphene Oxide with Thermal Reduction Process

16:00-16:15

Changhee Hong, Min Han, Beo Deul Ryu, Nam Han, Kang Bok Ko
 Chonbuk National University

EM-2607 Process and Tool Characterization of Hard Mask Materials for Through Silicon Vias (TSVs) Etching

16:15-16:30

Dong Hyun Kang, Somang Choi, Jung Mo Gu, Sang Jeen Hong, Won Taek Park
 Myongji University

Nov. 15, 2013 (Fri.)

EM-4 (Application Technology for Advanced Electromaterials and Devices 4)

301

Chair : Prof. Sang Heon Lee (Sunmoon University)

09:00-10:30

EM-3997 Study on Surface Insulation Performance of Machinable Ceramics for High Voltage Electro-vacuum utilization

09:00-09:30

Invited Speech

Guan-Jun Zhang, Guo-Qiang Su, Jiang-Yang Zhan, Yan Lang, Bai-Peng Song, Hai-Bao Mu, Jun-Bo Deng
Xi'an Jiaotong University

EM-3058 Biomimetic Terpene Sensors using Conductive Polymer and Molecularly Imprinted Polymers

09:30-09:45

James Lee¹, Jaehoon Jung², Sung Pil Lee²

¹Korea University, ²Kyungnam University

EM-3348 Modified Conducting Polymer for Organic Diode

09:45-10:00

R.A. Nafdey¹, D.S. Kelkar², S.A. Telang³

¹RTM Nagpur University, ²Institute of Science, ³Government Polytechnic

EM-3825 Rigorous Analysis of Electric-field-driven Liquid Crystal Lens for the 3D Display

10:00-10:15

Bong Sik Kim, Keon Woo Kim, Woo Sang Park

Inha University

EM-4210 Defects in Graphene by Proton-irradiations

10:15-10:30

Younghun Jung, Gwangseok Yang, Jihyun Kim

Korea University

EM
Oral

Nov. 14, 2013 (Thu.)

EM-1 (Application Technology for Advanced Electromaterials and Devices 1)

Conference Room Lobby

Chair : Dr. Hoon-Kyu Shin (Pohang University of Science and Technology)

16:30-18:00

EM-3499 Breakdown Characteristics of PPLP Specimen in Liquid Nitrogen with Superposition of DC and Lightning Impulse

Won Choi, Injin Seo, Jayoon Koo
Hanyang University

EM-3512 Characteristics of Film Substrates Ensuring Flexibility and Transparency using Chitin Nanofibers

Dong-Eun Kim¹, Eungsoo Seo², Joong Kook Hwang², Hoon-Kyu Shin¹
¹Pohang University of Science and Technology, ²PROTEM Co., Ltd

EM-3520 Effect of Acrylic Copolymer on Green Sheet Preparation of Ni-Zn ferrite

Shi-Yeon Kim¹, Dong-Hun Yeo², Hyo-Soon Shin², Joon-Tae Song³, Ho-Gyu Yoon¹
¹Korea University, ²Korea Institute of Ceramic Engineering & Technology, ³Sungkyunkwan University

EM-3573 Graphene-based Nanoelectromechanical Relays: Molecular Dynamics Modeling and Simulations

Sun-Young Kim, Jeong-Won Kang
Korea National University of Transportation

EM-3581 Molecular Dynamics Study on Graphene Nanodisk Pressure Sensor

Sun-Young Kim, Jeong-Won Kang
Korea National University of Transportation

EM-3695 Effects of Electrical Resistivity on the Permeability of Fe-Si-Cr Powder Sheets used for Near Field Communication

Pyungwoo Jang, Chi-Sup Jung, Kwang-Ho Kim, Kyu Seomoon
Cheongju University

EM-3698 CFD Modeling the Characteristics of Heating Pipe System from OLED Devices

Byeong Sam Kim
Hoseo University

EM-3719 Magnetization Process on Low-field Microwave Absorptions for Nanocrystalline Soft Magnetic Thin Film

Joonsik Lee, Jinu Kim, Ki Hyeon Kim
Yeungnam University

EM-3745 DC Insulation Properties of LSR Nanocomposite for HVDC Cable Joint

Ju-na Hwang, Cheoung-Won Seo, Yong-jun Park, Jae-Yong Sim, Kee-Joe Lim
Chungbuk National University

EM-3753 Hybrid Insulation Properties of Rod-Plane Electrode Covered ATH/SIR Nanocomposite in Dry-Air

JaeYong Sim, YongJun Park, CheongWon Seo, KeeJoe Lim
Chungbuk National University

EM-3822 DC Conduction and Breakdown Characteristics of Al₂O₃/XLPE Nanocomposite for HVDC Cable Insulation

Yong Jun Park, Jae Yong Sim, Ju Na Hwang, Cheong Won Seo, Ji Ho Kim, Kee Joe Lim
Chungbuk National University

EM-3823 Ultra-thin Si/TiO₂/Al Memristor

Sang-Jin Lee¹, Kwan-Jun Heo¹, Sung-Jin Kim¹, Kyoungrok Cho¹, Sung-Mo Kang², Kamran Eshraghian³
¹*Chungbuk National University*, ²*Korea Advanced Institute of Science and Technology*, ³*DataMap Corporation*

EM-3836 Electrical Conduction Characteristics of XLPE Nanocomposite

Yong-Jun Park¹, Jae-Yong Sim¹, Jin-Ho Nam², Wan-Gi Park², Kee-Joe Lim¹
¹*Chungbuk National University*, ²*LS Cable & System*

EM-3843 Solid-state Alloying in Ge-Sb-Te Chalcogenide Material Systems

Seung-Yun Lee
Hanbat National University

EM-3889 The Doping Effects of Rare-earth Ions on Dielectric Properties and Microstructures of Nano BaTiO₃

Jung Min Lee¹, Jong Heun Lee², Hyo Soon Shin¹, Myoung Pyo Chun¹
¹*Korea Institute of Ceramic Engineering and Technology*, ²*Korea University*

EM-3896 Fabrication of Thin Micro-sized Copper Mesh on a Transparent Polyimide Film for EMI by Pulse Reverse Plating

Man Kim¹, Ju-Yul Lee¹, Sang Heon Lee², Yong Choi³
¹*KIMS*, ²*Sunmoon University*, ³*Dankook University*

EM-3980 Electrical Breakdown Location Identification for High Voltage Devices of Electrical Train using Double Electric Field Sensor

Kang Won Lee
KRRI

EM-4002 Study on Voltage-Ratings Improvement of YBCO Thin-Film Wire for Application Power Apparatus

Soung Ouk Heo, Ho Ik Du, Tae Min Kim, Byoung Sung Han
Chonbuk National University

EM-4007 Fabrication and Characterization of Multi-layered Ceramic Ion Generator based on DBD

Hong Je Choi¹, Myung Pyo Chun¹, Yong Soo Cho²
¹*KICET*, ²*Yonsei University*

EM-4102 Two-color InAs Quantum Dot Infrared Photodetectors Realized by Selectively Positioned Potential Confinement Layer

Tien Dai Nguyen, Nam-Kyu Park, Eui-Tae Kim
Chungnam National University

EM-4135 Bouncing of Keeping Relay due to Permanent Magnet

ChangSu Huh, SunHo Choi
Inha University

EM-4180 A Study on the Changing of Electrical Properties of Physically Deposited a-Se Films using Temperature Annealing and Light Irradiation

Si-Cheol Noh, Sang-Sik Kang, Ji-Koon Park, Hyeong-Jin Jung, Bong-Jae Jung
International University of Korea

EM-4183 Design and Evaluation of HgI₂ Photoconductors for Phosphor Screen based Flat Panel X-ray Detector

Ji-Koon Park, Sang-Sik Kang, Bong-Jae Jung, Il-Hong Choi, Si-Cheol Noh
International University of Korea

EM-4186 The Fabrication and Evaluation of Gd₂O₃: Tb Phosphor Screen Film for CMOS based X-ray Imager Development

Sang-Sik Kang, Su-Rim Choi, Si-Cheol Noh, Bong-Jae Jung, Ji-Koon Park
International University of Korea

EM-4216 The Evaluation of the Thick Polycrystalline HgO and PbO Films Derived by Room-temperature deposition Method for the Mammographic Application

Bong-Jae Jung, Si-Cheol Noh, Ji-Koon Park, Hyeong-Jin Jung, Sang-Sik Kang
International University of Korea

EM-4240 Solution Processible and Photo-curable Hybrid Materials using Methyl-Methacryl Modified Various Sized Silica Nanoparticles and Methyl-Methacryl Oligosiloxanes

Dong Jun Kang, Go Un Park, Hyeon Hwa Lee, Hyo Yeol Park
Korea Electrotechnology Research Institute

EM-4307 Electromagnetic Properties and Superconducting Mechanism of Ceramic Oxides

Sang Heon Lee¹, Yong Choi²
¹Sunmoon University, ²Dankook University

EM-4325 Thickness Effects of Nanoscaled TiO₂ Blocking Layer on Efficiency of Photo-Electrochemical Cells

SangGon Kim¹, YoulMoon Sung¹, JungWoo Ok², HoonKyu Shin³
¹Kyung Sung University, ²Korea Basic Science Institute, ³POSTECH

EM-4328 Reliability Assessment of Ceramic Coating in Lens Module for Smartphone

Hyoung-Seuk Choi
Korea Institute of Ceramic Engineering & Technology

- EM-4386 Effects of Damaged Insulator on Dielectric Properties of Power Cable Termination**
Seung-Myeong Baek¹, Dong-Soon Kwag²
¹Changwon Moonsung University, ²Kyungil University
- EM-4407 Preparation of Ni-Fe Thin Composites with Quasi-nano-sized TiC by Combustion Synthesis and Electroforming**
Yong Choi
Dankook University
- EM-4409 Bio-mineralization Behavior of Ti-6Al-4V-1Nb and Zr-1Nb Nano-tubes Formed by Anodization for Bio-Sensor**
Ju-Young Jin¹, Yong Choi², Sun-Ig Hong¹
¹Chungnam National University, ²Dankook University
- EM-4418 Characterization of Nano-Sized NbCuZn-Ferrites Formed by Combustion Synthesis and Ultrasonic Agitation Floating Method**
Yong Choi, Chul H. Song, Se B. Oh
Dankook University
- EM-4438 Monolithically Surface Treated Organic Pigments for Colored Electrophoretic Displays**
Joo Yeon Kim, Kyung Soo Suh
ETRI
- EM-4442 Photonic Gel Reflective Color Display**
Kyeonghyeon Ko¹, Joohyun Kim¹, Hyunjung Lee², Wonmok Lee¹
¹Sejong University, ²Kookmin University
- EM-4478 Synthesis and Characterization of Nano-sized Metallic Gold Colloids for Photosensitive Device**
Yul Baik¹, Yong Choi¹, Yong K. Park², Sang H. Lee²
¹Dankook University, ²Sunmoon University
- EM-4501 Characterization of Surface Recombination Current of 4H-SiC MOSFET with Passivation Process**
Ye Hwan Kang¹, Eun Sik Jung¹, Ey Goo Kang², Hoon-Kyu Shin³, Chang Heon Yang¹
¹Maple Semiconductor Inc, ²Far East University, ³Pohang University
- EM-4550 Stability of Plasma-modified Superhydrophilic Single-walled CNT Network Gas Sensors**
Seung Woo Ham¹, Hyun Pyo Hong¹, Chan Won Park², Nam Ki Min¹
¹Korea University, ²Kangwon National University

Nov. 15, 2013 (Fri.)

EM-2 (Application Technology for Advanced Electromaterials and Devices 2)

Conference Room Lobby

Chairs : Prof. Sang Jeon Hong (Myongji University)

13:00-14:30

Prof. Sang Heon Lee (Sunmoon University)

EM-0327 Corona Strength of 22.9kV Class Polymer Insulators according to Artificial UV Radiation

Youngseok Kim, Chongmin Kim, Myeongil Choi

Korea Electrical Safety Corporation

EM-0499 Surface Analysis of Aluminum Wire Bonding Pad in Flash Memory Multi-Chip Package

Sang Jeon Hong, Dong Ju Son

Myongji University

EM-0541 Hysteresis Properties of a Flux-lock Type SFCL with Two Magnetic Paths using E-I Core

Seok-Cheol Ko¹, Tae-Hee Han², Sung-Hun Lim³
¹Kongju National University, ²Jungwon University, ³Soongsil University

EM-0574 The Infill Effect of HgI₂ X-ray Detector Mixed Oxidation Materials

Jungwook Shin¹, Gyuseok Cho¹, Kyungmin Oh¹, Jinseon Kim¹, Jikoon Park², Sanghee Nam¹
¹Inje University, ²International University of Korea

EM-0655 Electric Properties of Si based Composites Added Nano Oxides

Sang Heon Lee¹, Yong Choi²
¹Sunmoon University, ²Dankook University

EM-0659 Study on the Superconducting Properties of Ceramics Oxides

Sang Heon Lee¹, Yong Choi²
¹Sunmoon University, ²Dankook University

EM-0689 Fabrication of Nano-Sized TiC-Ni-Fe Thin Sheet for High Temperature Electrical Device

Youl Baik, Yong Choi, Jin I. Choe

Dankook University

EM-0692 Improvement of Opto-electrical Properties of Transparent Conducting Oxide Lamellar Films

Ga Hyun Choi¹, Sang H. Lee², Yong Choi¹
¹Dankook University, ²Sunmoon University

EM-0697 Electrical Properties of Electroplated Thin Copper Deposit on Electroformed Iron-Nickel Sheet for Electro-Magnetic Devices

Young M. Kim¹, Seong K. Cho¹, Joo Y. Lee², Man Kim², Yong Choi¹
¹Dankook University, ²KIMS

EM-0700 Performance Tests of a Heat Pipe with Micro-sized Inner Fins and Nano-Fluid for Cooling Electronic Devices

Ma R. Kim¹, Sae B. Oh¹, Bo K. Kang¹, Sang H. Lee², Yong Choi¹
¹Dankook University, ²Sunmoon University

EM-0702 Thermal Effect on the Electro-Magnetic Insulating Behavior of Thin Copper-Nickel Multi-Layers

Chul H. Song¹, Yong Choi¹, Joo Y. Lee², Man Kim², Eun J. Shin³, Baik S. Seong³, Young S. Han³

¹Dankook University, ²KIMS, ³KAERI

EM-0744 Electrochemical Performances of Fullerene C60-coated Indium Tin Oxide Films as a Counter Electrode for Electrochromic Devices

Kyuha Lee, A-Young Kim, Bongjo Kang, Ji Hun Park, Joong Kee Lee

Korea Institute of Science and Technology

EM-0825 Characterization of Mn-based Interlayers as Copper Diffusion Barrier in Cu-Mn/low-k Samples

Jae-Hyung Park, Jong-Wan Park, Dong-Suk Han, You-Jin Kang

Hanyang University

EM-0987 Low-Temperature Thermal-curable Hybrid Materials using Organically Modified Various Sized Silica Nanoparticles and Methyl-Glycidyl Oligosiloxanes

Dong Jun Kang¹, Hyeon Hwa Lee¹, Go Un Park¹, Hyo Yeol Park¹, Jang-Ung Park²

¹Korea Electrotechnology Research Institute, ²Ulsan National Institute of Science and Technology

EM-1002 Fabrication and Electrical Properties of Anodic Aluminum Oxide Nano Template as Various Voltage for Biosensors

Jin-Ho Yeo, Sung-Gap Lee, Yong-Jun Kim, Hye-Rin Jung

Gyeongsang National University

EM-1117 Multilayer Integration of ZnO-Nanowire-Based Field-Effect-Transistors Constructed on Plastic Substrates

Youngin Jeon, Sangsig Kim

Korea University

EM-1126 A Comparison of Simulated Characteristics of Impact-ionization and Tunneling FETs with Partially Covered Intrinsic Regions

Minsuk Kim, Youngin Jeon, Yoonjoong Kim, Sangsig Kim

Korea University

EM-1127 ZnO Nanowire Field Effect Transistors with Pt Nanocrystals Fabricated on Flexible Plastic Substrates for a Non-Volatile Memory Application

Myeongwon Lee, Youngin Jeon, Sangsig Kim

Korea University

EM-1141 Detecting Sensitivity of Ultraviolet according to the Corona Discharge Intensity using UV Sensor

Dong-Soon Kwag¹, Young-Seok Kim²

¹Kyungil University, ²Korea Electrical Safety Corporation

EM-1264 Current Limiting and Recovery Characteristics of a Flux-Lock Type SFCL with Two Adjustable Operational Currents

Tae-Hee Han¹, Seok-Cheol Ko², Sung-Hun Lim³

¹Jungwon University, ²Kongju National University, ³Soongsil University

EM-1294 Analysis of Circuit Model for High Power Microwave Attenuation caused by Breakdown in Air

Kun-A Lee, Jae-Ho Rhee, Young-Maan Cho, Ji-Eun Baek, Kwang-Cheol Ko
Hanyang University

EM-1307 Optimal Design of Vircator Simulator Composed of Lumped Elements

Sung-Gyen Lee, Kun-A Lee, Jae-Ho Rhee, Young-Maan Cho, Ji-Eun Baek, Kwang-Cheol Ko
Hanyang University

EM-1312 Lumped Elements Modeling of Tapered Transmission Line for Impedance Matching in Pulsed Power System

Kun-A Lee, Jae-Ho Rhee, Young-Maan Cho, Ji-Eun Baek, Kwang-Cheol Ko
Hanyang University

EM-1364 Development of the Electronic Moxibustion Treatment Device for Realizing a Heating Effect of the Mugwort Moxibustion

Taegon Kim, Yumi Lee, Ockseon Jang, Yongpil Park, Minwoo Cheon
Dongshin University

EM-1396 Double Layer Effect on Electrothermal Properties of Transparent Heaters

A-Young Kim¹, Kyuha Lee¹, Ji Hun Park¹, Dongjin Byun², Joong Kee Lee¹
¹Korea Institute of Science and Technology, ²Korea university

EM-1447 Controlling of Optical Properties by TiO₂ in Cr₂O₃/Ag-Cr/TiN/glass Multilayer Thin Films for Low-e Applications

Ho Tak Yu, Chadraseskhar Loka, Kee-Sun Lee
Kongju National University

EM-1559 Aerosol Deposited Ba_xSr_{1-x}TiO₃ Thick Films for Microwave Applications

Ji-Won Lee, Jung-Hyuk Koh
Kwangwoon University

EM-1569 Thermal and Mechanical Properties of Epoxy Composite with Al₂O₃ Filler used for Compact GIS Spacer

HanGoo Cho, Eun-Hwa Jeong, Young-Ho Kim
Korea Electrotechnology Research Institute

EM-1671 Fabrication of Pt-MWNT/Nafion Electrode by Low-temperature Decal Transfer Technique for Amperometric Hydrogen Detection

Muhammad Rashid, Yong Shin Kim
Hanyang University

EM-1810 Electroactive Hybrid Electrode based on Ru-doped Silica Nanoparticles and Graphene Oxide Sheets for Electrochemiluminescence Sensor

Thi Anh Ho, Young Bum Cho, Yong Shin Kim
Hanyang University

EM-1961 Analysis on Fault Current Limiting and Bus-voltage Sag Suppressing Characteristics of a Flux-lock Type SFCL with an Isolated Transformer

Tae-Hee Han¹, Seok-Cheol Ko², Sung-Hun Lim³

¹Jungwon University, ²Kongju National University, ³Soongsil University

EM-2010 The Hard Ferrite Coating on Boron Nitride by Sol-gel Method

Yongho Yoon, Jihoon Jung

Kyonggi University

EM-2081 Nd: YVO4 Laser Ablation of Graphene Films on Glass and PET Substrates

Jeongmin Lee¹, Jae-Hee Han¹, Jung-Hun Lee², Ji-Beom Yoo², Sang Jik Kwon¹, Eou Sik Cho¹

¹Gachon University, ²Sungkyunkwan University

EM-2209 Electrical Switching Properties of Manganese Oxide Thin Films for Applications in the Transparent Resistive Random Access Memory Devices

Kai-Huang Chen¹, Chien-Min Cheng², Yi-Pin Lin¹, Kuan-Chang Chang³, Tsung-Ming Tsai³, Tzung-Shiun Wu²

¹Tung-Fang Institute, ²Southern Taiwan University of Science and Technology, ³National Sun Yat-Sen University

EM-2212 Low Electrical Power Consumption Characteristics in Transparent Vanadium Oxide Thin Films RRAM Devices

Kai-Huang Chen¹, Chien-Min Cheng², Yi-Pin Lin¹, Tsung-Ming Tsai³, Kuan-Chang Chang³, Feng-Yi Su²

¹Tung-Fang Institute, ²Southern Taiwan University of Science and Technology, ³National Sun Yat-Sen University

EM-2410 Low Temperature Synthesis of Garnet Type Solid Electrolyte by Modified Polymer Complex Process and Its Application

Chul Ho Lee¹, Chil Hoon Doh¹, Gum Jae Park¹, Dong Sik Bae², Sang Min Lee¹

¹Korea Electrotechnology Research Institute, ²Changwon National University

EM-2415 Creepage Discharge Characteristics of Al(OH)3,MgO,SiO2 / SIR Nanocomposite under Impulse Voltage in Air

Cheong-Won Seo, Young-Gwang Cha, Ji-Ho Kim, Jae-Yong Sim, Ju-Na Hwang, Kee-Joe Lim

Chung-Buk National University

EM-2542 Selective Electroless Copper Plating on Polyimide Substrate by UV/Ozone Treatment

Sang Cheon Park¹, Junho Choi¹, Takahisa Kato¹, Sung-Won Youn², Hideki Takagi², Hiroshi Hiroshima², Ryutaro Maeda²

¹The University of Tokyo, ²National Institute of Advanced Industrial Science and Technology (AIST)

EM-2641 Synthesis of a Thermally Conductive Liquid Crystalline Epoxy and Its Application to Hybrid Compositions for Heat Dissipation Insulation Sheet

Seong-Dae Park, Woo-Sung Lee

Korea Electronics Technology Institute

EM-2705 Effects of Silver Nanoplate and Graphene Nanosheets on Electrical and Thermal Properties of Epoxy/Silicone Hybrids

Daisoo Lee, Gwangseok Song

Chonbuk National University

EM-2823 Improvement of Emission Efficiency and Color Purity of White OLED by Hole Blocking Layer and Hybrid Structure

Dong-Eun Kim, Hoon-Kyu Shin

Pohang University of Science and Technology(POSTECH)

EM-2842 An Experimental Study on the AC Breakdown Characteristics of the SF₆ Gas Mixtures and Different Pure Gases

Dong-Hee Rhie

The University of Suwon

EM-3023 Oxygen Deficiency, Hydrogen Doping, and Stress Effects on Metal-Insulator Transition in Single-Crystalline Vanadium Dioxide Nanobeams

Woong-Ki Hong¹, Sung-Jin Chang¹, Jong Bae Park^{1,2}, Tae-Sung Bae¹

¹Korea Basic Science Institute, ²University of Oxford

EM-3054 Thermal Annealing Effects on Spray-coated Hybrid Films of Graphene Oxide/Ag Nanowire/Graphene Oxide for Transparent Conducting Electrodes

Jong Bae Park¹, Woong-Ki Hong¹, Hyerim Cho¹, Song-I Kim¹, Tae Sung Bae¹, Jung Inn Sohn², SeungNam Cha², Jong Min Kim²

¹Korea Basic Science Institute, ²University of Oxford

EM-3059 Transport Mechanism by Gas Adsorption in Electrode-Semiconductor Interface

Sung Pil Lee

Kyungnam University

EM-3111 The Role of Bi Dopant in In₃SbTe₂ Phase Change Material

Minho Choi¹, Jinho Ahn¹, Yong Tae Kim²

¹Hanyang University, ²Korea Institute of Science and Technology

EM-3153 Manipulation of Nanowires in a Transparent Dielectrophoretic Device

Joo-Young Lee, Young Joon Yoon, Hyunsung Jung, Chang-Yeoul Kim, Hyo Tae Kim

Korea Institute of Ceramic Engineering and Technology

EM-3266 A Study on the Optical and Electrical Properties of Organic-inorganic Composite Insulation Layer for the Application of Touch Panel Sensors

Moon Ki Jung, Hee Chul Lee

Korea Polytechnic University

EM-3461 First-Principles Computational Studies of Thermo-electrochemical Properties of Molten Salts for Pyroprocessing of Spent Nuclear Fuels

Ju Seung Lee, Sang Heum Byun, Byung Chan Han

DGIST (Daegu Gyeongbuk Institute of Science and Technology)

EM-3496 Experimental Study on DC Breakdown Characteristics of PPLP in LN₂ considering superconducting Cable Insulation

Injin Seo, Won Choi, Jayoon Koo

Hanyang Univ.

EM-3497 **Advanced “Pulse Analysis Map” Applied to the Identification of Defects Put under Cryogenic Temperature**

Injin Seo¹, Jihong Kim², Jayoon Koo¹

¹*Hanyang University*, ²*Calvus Instrument*

Korea-China Joint Symposium on Ferroelectricity and Multiferroics (KC)

Oral Presentation

Nov. 14, 2013 (Thu.)

KC-1 (Korea-China Joint Symposium on Ferroelectricity and Multiferroics 1)

Samda A

Chairs : Prof. Ill Won Kim (University of Ulsan)
Prof. Shuxiang Dong (Peking University)

13:00-14:45

KC-2251 Layer Structured Magnetoelectric Composite Materials and Thick Films by Aerosol-Deposition

13:00-13:30
Invited Speech

Jungho Ryu¹, Deepak Patil², Dae-Yong Jeong³, Woon-Ha Yoon¹, Dong-Soo Park¹, Byung-Dong Hahn¹, Cheol-Woo Ahn¹, Jong-Jin Choi¹, Jong-Woo Kim¹, Kee Hoon Kim²

¹Korea Institute of Materials Science (KIMS), ²Seoul National University, ³Inha University

KC-0681 Preparation and Field-induced Electrical Properties of Perovskite Relaxor Ferroelectrics

13:30-14:00
Invited Speech

Huiqing Fan¹, Biaolin Peng¹, Qi Zhang²

¹Northwestern Polytechnical University, ²Cranfield University

KC-2925 A New Route toward Electrical Control of Magnetic State

14:00-14:30
Invited Speech

Jin Hong Lee, Chan-Ho Yang

KAIST

KC-2835 EuTiO₃: An almost Multiferroic Material with Surprising Strong Spin-lattice Coupling at Elevated Temperatures

14:30-14:45

Annette Bussmann-Holder¹, Jürgen Köhler¹, Zurab Guguchia², Hugo Keller²

¹Max-Planck-Institute for Solid State Research, ²Physik-Institut der Universität Zürich

Nov. 14, 2013 (Thu.)

KC-2 (Korea-China Joint Symposium on Ferroelectricity and Multiferroics 2)

Samda A

Chairs : Dr. Jungho Ryu (Korea Institute of Materials Science)
Prof. Huiqing Fan (Northwestern Polytechnical University)

15:00-16:45

KC-3093 Tunable Ferroelectricity in Tri-color Superlattices Composed of Non-ferroic Components

15:00-15:30
Invited Speech

Jiwon Seo¹, Jaichan Lee¹, Konstantinos Rogdakis², Loyd Ah Qune³, Christos Panagopoulos³, J Burton⁴, Evgency Tsymbal⁴

¹Sungkyunkwan University, ²Inst. of Structure and Laser, ³Nanyang Technological University, ⁴University of Nebraska Lincoln

KC-0914 Recent Progress on H-T Piezoelectric Ceramic Actuators

15:30-16:00
Invited Speech

Shuxiang Dong

Peking University

KC-5005 Realization of Large Converse Magnetoelectric Effects in Helimagnets

16:00-16:30
Invited Speech

Kee Hoon Kim

Seoul National University

KC-1263 Enhanced Electroresistance and Memristive Behavior in Metal/Ferroelectric/Semiconductor Tunnel Junctions

16:30-16:45

Zheng Wen, Chen Li, Di Wu, Aidong Li, Naiben Ming
Nanjing University

Nov. 15, 2013 (Fri.)

KC-3 (Korea-China Joint Symposium on Ferroelectricity and Multiferroics 3)

Samda A

Chairs : Prof. Kee Hoon Kim (Seoul National University)
Prof. Xiaohui Wang (Tsinghua University)

09:00-10:30

KC-0450 Experimental Evidence of Domain forward Nucleation and Wall Sideways Motion in Parallel-plate Ferroelectric Thin Film Capacitors

09:00-09:30

Invited Speech

Anquan Jiang, Huihua Yu, Tingao Tang
Fudan University

KC-0573 Low-Temperature Irreversibility of the Magnetic Transition and Heat Transport of Multiferroic Orthoferrite DyFeO₃

09:30-10:00

Invited Speech

Xuefeng Sun, Zhiying Zhao, Fabao Zhang, Cheng Fan, Qiuju Li
University of Science and Technology of China

KC-3607 Giant Magnetoelectric Coupling in Metglas/[011]-0.7Pb(Mg₁/3Nb₂/3)O₃-0.3PbTiO₃-0.3PbTiO₃ Crystal/Metglas Multiferroic Laminates with Anisotropic Piezoelectric Properties

10:00-10:15

Deepak Rajaram Patil¹, Kee Hoon Kim¹, Yisheng Chai¹, Rahul C. Kambale², Byung-Gu Jeon¹, Kyongjun Yoo¹, Jung-ho Ryu², Woon-Ha Yoon², Dong-Soo Park², Dae-Yong Jeong³, Sang-Goo Lee⁴, Jeongho Lee⁴, Joong-Hee Nam⁵, Jeong-Ho Cho⁵, Byung-Ik Kim⁵

¹Seoul National University, ²Korea Institute of Materials Science, ³Inha University, ⁴iBULe Photonics Co. Ltd, ⁵Korea Institute of Ceramic Engineering and Technology

KC-1945 Multiferroic Response of 1-x(BiFeO₃)/x(La₂/3Sr₁/3MnO₃) Composites

10:15-10:30

Virendra Kumar¹, Anurag Gaur¹, R.k. Kotnala²

¹National Institute of Technology, ²National Physical Laboratory

Nov. 15, 2013 (Fri.)

KC-4 (Korea-China Joint Symposium on Ferroelectricity and Multiferroics 4)

Samda A

Chairs : Prof. Anquan Jiang (Fudan University)
Prof. Chan-Ho Yang (Korea Advanced Institute of Science and Technology)

10:45-12:00

KC-4467 Low-temperature Sintering and High Performance of Lead-free Ceramics Prepared from Nano-powders

10:45-11:15

Invited Speech

Xiaohui Wang
Tsinghua University

KC-0309 Microscale 1-3-type Composites using Lead-free (K,Na)NbO₃-based Piezoelectric Ceramics

11:15-11:45

Invited Speech

Jing-Feng Li
Tsinghua University

KC
Oral

151

KC-0349 Exchange Bias in BiFeO₃/La_{0.67}Sr_{0.33}MnO₃ Bilayers

11:45-12:00 Qingyu Xu¹, Yan Sheng¹, Xiaobo Xue², Xueyong Yuan¹, Zheng Wen², Jun Du²
¹*Southeast University*, ²*Nanjing University*

Poster Presentation

Nov. 15, 2013 (Fri.)

KC (Korea-China Joint Symposium on Ferroelectricity and Multiferroics)

Conference Room Lobby

Chair : Prof. Kee Hoon Kim (Seoul National University)

13:00-14:30

KC-1262 Energy Scavenging from Ambient Low-Frequency Magnetic Field using Ferromagnetic-Elastic-Piezoelectric Composite Cantilever

Guoxi Liu, Yuan Zhang, Shuxiang Dong
Peking University

KC-1574 A Pseudo-Bimorph Actuator for High Temperature Application

Huaduo Shi¹, Jianguo Chen², Guoxi Liu¹, Shuxiang Dong¹
¹*Peking University*, ²*Shanghai University*

KC-1623 Dependence of Magnetic Materials in Ferroelectric/Ferromagnetic Multilayer Thin Film Composites

Sung-Ok Hwang¹, You-Jeong Eum¹, Jong-Woo Kim², Jungho Ryu², Chang Young Koo¹, Hee Young Lee¹
¹*Yeungnam University*, ²*Korea Institute of Materials Science (KIMS)*

KC-1643 Magnetoelectric Properties of CoFe204-PZT Composite Thin Films

You Jeong Eum¹, Sung-Ok Hwang¹, Jong-Woo Kim², Jungho Ryu², Chang Young Koo¹, Hee Young Lee¹
¹*Yeungnam University*, ²*Korea Institute of Materials Science (KIMS)*

KC-3211 Dielectric, Ferroelectric and Transport Properties of Co Substituted BaTiO3

Neelam Maikhuri¹, Sheela Devi², Amrish K. Panwar¹, A. K. Jha³
¹*Delhi Technological University*, ²*Maharaja Surajmal Institute of Technology*, ³*Delhi Technological University, AIACTR*

KC-3307 Piezoelectric Single Crystal Fiber/Ni Laminate Composites and Their Magnetoelectric and Magnetic Vibration Energy Harvesting Properties

Ju-Eun Kang^{1,2}, Jungho Ryu¹, Woon-Ha Yoon¹, Dong-Soo Park¹, Jong-Jin Choi¹, Cheol-Woo Ahn¹, Jong-Woo Kim¹, Byung-Dong Hahn¹, Dae-Yong Jeong³, Yang-Do Kim²
¹*Korea Institute of Materials Science*, ²*Pusan National University*, ³*Inha University*

KC-3383 Multiferroic Properties and Local Structure of Spinel (Co,Mn)304

Jong-Hyun Song¹, Dae-Su Lee², Sun-Hee Kang³, Il-Won Kim³, Yoon-Hee Jeong⁴, Tae-Yeong Koo²
¹*Chungnam National University*, ²*Pohang Accelerator Laboratory*, ³*University of Ulsan*, ⁴*Pohang University of Science and Technology*

ICAE2013 Green Energy Convergence Forum

November 13

ICC Jeju, Jeju, Republic of Korea

(Official Language: Korean)

Objectives

The aim of the ICAE 2013 Green Energy Convergence Forum is to provide opportunity for share recent information on green energy convergence field including policy, technology, trend and current state of industry. The forum also wants to provide a method of linking student employment with corporations. And then, the perspectives of the green energy industry and effective student employment linkage will be discussed by the panels. Moreover, this forum will try to provide the participants from public organizations, universities, research institutes or related corporations with possibilities for understanding to overcome the present situation that we meet across the economic regions domestically and beyond the country to the world.

Forum Agenda

The theme of the forum is Realization of Creative Economy - the perspectives of the green energy industry and effective student employment linkage. Presentations will be provided by two professionals for each topic closely related to the theme. One is the perspectives of the green energy industry, the other is effective student employment related to the corporations of corresponding industry. The panels including speakers, directors of YU LINC and Kumoh National Institute of Technology LINC, professionals will conclude through discussion.

Program

-16:30	Registration
16:30-16:35	Opening Statement and Welcoming Address
16:35-18:50	Presentations I. The Role of Yeungnam University LINC for the Creative Economy and New Job Creation II. The Role of Kumoh National Institute of Technology LINC for the Creative Economy and New Job Creation III. Perspectives of the Green Energy Convergence Industry IV. Realization of Creative Economy - Effective Linkage of Student Employment with Corporations
18:50-19:40	Panel Discussion Theme: Industry-University-Institute Cooperation Models for the Invigoration of Creative Economy (Green Energy Convergence Industry Perspectives & Effective Student Employment Linkage)
19:40-	Reception & Closing Statement

* Only for the person invited, dinner meeting is provided, if available.

Directory of Exhibitors

Overview

Location	Conference Room Lobby 3F
Stand Set-up	09:00-15:00, November 11 [Mon.]
Exhibitor Move-in, Decoration	15:00-18:00, November 11 [Mon.]
Show Days	10:00-18:00, November 12 [Tue.] - 14 [Thu.]
Dismantling & Exhibits Move Out	20:00~, November 14 [Thu.]



I.V. Solution & SnM

- **Address** #506, Chartmant S Building, 15-4, Jamwon-dong, Seocho-gu, Seoul, Korea
#305, Gumisi Business Center, 350-27, Gumi-daero, Gumi-city, Gyeongsangbuk-Do, Korea
- **President** YH In & HJ Chung
- **Contact Person** KB Kim & YM Kim (sales)
- **Tel / Fax** +82-2-543-7773 & +82-54-451-7838 / +82-54-452-7838 & +82-2-543-7040
- **E-mail / Website** inyhoon@ivsolution.co.kr & snmsales@isnm.co.kr /
www.ivsolution.co.kr & www.isnm.co.kr

I.V. Solution & SnM are the authorized distributor of Tektronix and Keithley of the world's leading supplier of measurement instruments. Also, we are the authorized distributor of MS Tech, Probe-station Total Solution company. We are supplying the electrical characterization analyzing systems of semiconductor materials, insulators and conductors at the national research institutes, universities and research institutions, enterprises and R & D Institute. We will promise to provide optimized measurement solutions to meet our customers of production and experimental Needs based on accumulated experience and know-how in the field of AC, DC, RF measurements during last 15 years.

The future of your support and encouragement deurimyeo, please always be healthy and happy.

Directory of Exhibitors



MS TECH

• Address	187, Jeunggeo-ri, Hyangnam-eup, Hwaseong-si, Gyeonggi-do, Korea
• President	Myung Soo Kim
• Contact Person	Myung Soo Kim
• Tel / Fax	+82-31-366-1678 / +82-31-366-1679
• E-mail / Website	msprober@gmail.com / www.mstech.kr

MS TECH is a business specialized in probe station, and strives very hard to supply and service equipment of the best quality.

In addition, Vacuum Chamber Probe Station is capable of responding to all diversified environments in vacuum for measurement and analysis with integration of the measurement equipment system.

Based on technological competence achieved in the existing atmospheric field, MS TECH is expanding its business into the vacuum field and promises to provide you with technology of the highest quality in the forthcoming days as well.



Yeungnam University LINC (Leaders in INdustry-university Cooperation)

• Address	Rm #511, CRC Building, 280 Daehak-Ro, Gyeongsan, Gyeongbuk 712-749, Rep. of Korea
• President	Hee Young Lee
• Contact Person	Chang Young Koo (Planning and Management Team)
• Tel / Fax	+82-53-810-4574 (4586) / +82-82-53-810-4783
• E-mail / Website	koogy@ynu.ac.kr / linc.ynu.ac.kr

Yeungnam University Leaders in INdustry-university Cooperation (YU LINC) was established in April, 2012 with a goal to train and supply high quality human resources for green energy convergence & integration industry through the cooperation between university and industry, in accordance with the Korean government's plan to develop new leading universities and industries. YU LINC is focused on the change of university education system through academic-industrial cooperation for the realization of our university vision "YU Glocal Initiative and YU to the Future", and continues our efforts to create new convergence and multidisciplinary education programs and cooperation systems. We would like to show and share the programs and the outcomes of the YU LINC with related organizations, professionals and participants of ICAE 2013 from domestic and overseas.



Kumoh National Institute of Technology, LINC (Leaders in INDustry-university Cooperation)

• Address	61 Daehak-ro (yangho-dong), Gumi, Gyeongbuk 730-701, Korea
• President	Suk Chae
• Contact Person	Suk Chae (Company Support Department)
• Tel / Fax	+82-54-478-7966 / +82-54-478-7969
• E-mail / Website	jyj2356@kumoh.ac.kr / linc.kumoh.ac.k

Kumoh National Institute of Technology was established by the late President Park Chung-Hee for cultivating high-quality human resources with the founding philosophy “truth, creation, honesty” on march 1980. From the beginning until now, We have constantly tried to be the top international university through the vision “the realization of the specialized university” to meet the demands of the times and historical mission for the Republic of Korea.

Our university has been joining LINC (Leaders in INDustry-university Cooperation) governed by the Ministry of Education, thanks to change the university education system through academic-industrial cooperation for cultivating Humanity man, Expertise man, Creativity man, and Globalization man on the basis of the founding philosophy “truth, creation, honesty”.

LINC Programs at Kumoh National Institute of Technology aim to simultaneously develop local companies and university by achieving the specialized university, by strengthening education and research of university satisfied with industry field demands, and by utilizing manpower resources and technical skills of university for local companies.

Kumoh National Institute of Technology has been trying to perform the important role of local industry-university Hub by constructing the interactive system of industry-university-research-government on the basis of consensus of industry-university cooperation through LINC programs.

We'll do our best to be a competitive organization on the basis of the beliefs “self-regulation, creativity, the mission of university”.

Directory of Exhibitors

The Solar Energy-Convergence-Green Energy Consortium

• Address	280 Daehak-ro, Gyeongsan-si, Gyeongbuk 712-749, Korea
• President	Jae-Hak Jung
• Contact Person	Deug-Young Jeong
• Tel / Fax	+82-53-802-6795 / +82-53- 802-4002
• E-mail / Website	jj1102dy@empas.com / yuric.or.kr

The Solar Energy-Convergence-Green Energy Consortium, consisting of five Regional Innovation Centers (RIC's), is aiming at setting up an Industry-University cooperative system and supporting local renewable energy industries by means of R&D infrastructure construction and technology development assistance. Five participating RIC's are actively collaborating with each other to support inter-regional green energy companies by sharing R&D infrastructure, exchanging human resources and performing joint research project.

Currently, the following five RIC's are participating in the consortium:

- Yeungnam University(Hub Center) : Regional Innovation Center for Solar Cell & Module
- Woosuk University : Hydrogen Fuel Cell Parts & Applied Technology Regional Innovation Center
- Suncheon National University : Green Technology Fused Advanced Materials Regional Innovation Center
- Kwandong University : Waterfront and Coastal Research Center
- Ulsan University(Performance Utilization Center) : Network-based Automation Research Center



LED-IT Fusion Technology Research Center

• Address	Yeungnam Univ., 280 Daehak-Ro, Gyeongsan, Gyeongbuk 712-749, Korea
• President	Ja-Soon Jang
• Contact Person	Jihwan Kim (Researcher)
• Tel / Fax	+82-53-810-4321~7 / +82-53-810-4764
• E-mail / Website	kjh0271@liftrc.re.kr / www.liftrc.re.kr

LED-IT Fusion Technology Research Center (LIFTRC) was established in 2009 by supporting Korea government and Regional governments (Gyeongbuk, Daegu and Gyeongsansi). The main aim of establishing LIFTRC is to lead advanced LED and the lighting fusion technologies for LCD, Automobile,

General & Smart Lighting industries, and hence contribute to the related LED industries in the world. Consequently, we will be a global leader in the LED-IT fusion technologies.

Since 2009, we have being tried to develop the pioneer fundamental and applicable technologies with domestic and oversea partners, and also build op the Core Fusion-Technology Hub of Northeast Asia. We have already set up inspection and analyzing systems that can satisfy international measurement standards. Currently all equipment ranging from EPI to lighting applications have being been installed within the LIFTRC. Very recently, we have successfully developed high-performance dental lighting and automotive front-lighting systems, super brightness LEDs, high power packages, and IT-controllable systems. In addition, useful and convergence technologies that can be directly available in the LED industries have begun to be successfully demonstrated. Moreover, global collaboration network is successfully expanding. Based on our accumulated Know-How, fruitful experience, technical capabilities, and domestic/international cooperation network, we have no doubt in our capability to be a best partner for your company, institute, and university in fulfilling the goals. As a director, we are continuously trying to enhance our activities and strategic movement.

We are looking forward to being a strategic partner, and always welcome to LIFTRC. We are always ready to collaborate with you to make great values. We appreciate your interest and encouragement.



University of Science and Technology

- **Address** 217 Gajeong-ro, Yuseong-gu, Daejeon, Korea
- **President** Un Woo Lee
- **Contact Person** Jung Soo Kim (Public Relations Team)
- **Tel / Fax** +82-42-865-2372 / +82-42-864-5554
- **E-mail / Website** kjs84@ust.ac.kr / www.ust.ac.kr

UST is a university of advanced institutes fostering high quality R&D professionals based on 30 Korean government-funded research institutes.

Directory of Exhibitors



Quantum Design Korea

Quantum Design Korea

-
- **Address** #303 Dongshin bldg. 204 Dogok-ro, Kangnam-gu, Seoul Korea
 - **President** Ji-won Park
 - **Contact Person** Sung-il Kim (Sales)
 - **Tel / Fax** +82-2-2057-2710 / +82-2-2057-2712
 - **E-mail / Website** sikim@qdkorea.com / www.qdkorea.com
-

Quantum Design Korea was established in 2003 as a branch office of Quantum Design Japan for an instrumentation and supplies distribution located in Seoul, Korea.

And, Quantum Design Korea is NF Korea agency. NF's major products are High Speed Bipolar Amplifier, Function Generator, Impedance/Gain-Phase Analyzer, High Voltage DC Power Supply, LCR meter, AC Power Supply, Electronic Load.

JLC

JLC Ltd.

-
- **Address** 6-3-4 Sandong-myeon, Gumi-si, Korea
 - **President** Sang In Lee
 - **Contact Person** Sang In Lee (management)
 - **Tel / Fax** +82-54-472-8180 / +82-54-471-8186
 - **E-mail** jlc@unitel.co.kr
-

We are a company specialized in the mechanical design which carries out the related projects with the product development and idea goods. Based on our rich practical business experiences and the cooperation with our superior partners, we promptly satisfy the need of customers and also support them in the idea stage of product, injection molding product [production for mass=customization], post processing, and production.



KIEEME

The Korean Institute of Electrical and Electronic Material Engineers

-
- **Address** The Korea Science & Technology Center Rm. 807, 22, 7gil, Teheran-ro, Gangnam-gu, Seoul 135-703, Korea
 - **President** Joon Tae Song
 - **Contact Person** Jinhee Baek (Editorial Office)
 - **Tel / Fax** +82-2-538-7958 / +82-2-538-3623
 - **E-mail / Website** kieeme@kieeme.or.kr / www.kieeme.or.kr
-

Journals Publication

Transactions on Electrical and Electronic Materials (English)

Journal of the Korean Institute of Electrical and Electronic Material Engineers (Korea)

Bulletin of the Korean Institute of Electrical and Electronic Material Engineers (Korea)

Author Index

A

- A-Young Kim EM-0744(145), EM-1396(146)
- A. K. Jha FD-0997(31)
- A. K. Jha KC-3211(153)
- A.A. Khaidarov TF-4355(67)
- Abhishek Khetan FC-0516(118)
- Abhishek Kumar Sharma OS-2958(91)
- Abhishek Sharma TF-3006(78)
- Adil Mahi NM-4523(46)
- Adnan Maqbool FP-2934(24), FP-1243(27)
- Adnan Yaqub NM-2852(54)
- Ae Ri Yoo FD-3340(38)
- Agata Lisinska-Czekaj FD-0258(36), FD-0263(34)
- Ah-Hyeon Lim ES-3261(128)
- Ahmed I. Ali FD-0717(43)
- Ahmer Riaz ES-0785(126)
- Ahn Wook ES-0945(134)
- Aidong Li KC-1263(151)
- Aivaras Kareiva OS-2869(91)
- Akiharu Morimoto FD-2620(36), FD-2339(42)
- Aldo Di Carlo NM-2555(45), NM-4036(46)
- Aleem Ullah NM-4523(46)
- Aleksandar Matic ES-3339(126)
- Alexander Simonov FC-3492(118)
- Alexey Y. Kovalgin TF-0963(67)
- Ali Hussain FP-0883(20), FP-2934(24),
FP-1034(26), FP-1243(27)
- Ali Saidi FD-0220(29)
- Alvin Carl Santiago TF-3873(70)
- Aman Ullah FP-1275(27)
- Amir Abidov ES-0393(127)
- Amir Ullah FP-1034(26), FP-1275(27)
- Amornrat Limmanee PV-4268(110)
- Ampika Rachakom FP-3407(25)
- Amrsh K. Panwar KC-3211(153)
- Ananthakumar Ramadoss ES-1379(135)
- Anaporn Kunlawong ES-4168(133)
- Andrea Reale NM-4036(46)
- Andrei Kholkin FP-2695(23)
- Andris Sternbergs FP-2695(23)
- Andrius Stanulis OS-2869(91)
- Anil Kawan LT-4378(63)
- Annette Bussmann-Holder FP-2840(21), KC-2835(150)
- Anquan Jiang KC-0450(151)
- Anthony H.W. Choi LT-3569(56)
- Anton Vassiliev FC-3620(118)
- Anucha Ruangphanit EM-0782(137)
- Anucha Watcharapasorn FP-2912(19), FP-2988(24),
FP-3097(24), FP-3201(24),
FP-3407(25)
- Anucha Watchrapasorn FD-3253(37)
- Anurag Gaur KC-1945(151)
- Apirat Laobuthee FC-3968(117), FC-3949(117)
- Apishok Tangtrakarn PV-3209(107)
- Areum Kim PV-2484(106), PV-1271(113),
TF-1068(73)
- Areumi Kim ES-2485(127)
- Ari Lee NM-3628(50)
- Arun R Patil ES-2205(128)
- Arzigul Habibul PE-2191(101)
- Ashok Kumar FD-4472(30)
- Athapon Simpraditpan NM-4253(51), NM-0461(52)
- Atipong Bootchanont FD-0302(31)
- Atsunori Matsuda PV-0445(103)
- Atsushi Ashida FD-0569(32), OS-4319(93)

B

- B.C. Shin OS-4341(93), OS-4344(93)
- Bae-Yeon Kim ES-1487(136)
- Baeho Park FD-1747(33), PV-1721(114),
PV-1926(114)
- Bai-Peng Song EM-3997(139)
- Baik S. Seong EM-0702(145)
- Balasubramaniam Saravanakumar OS-3391(92),

	NM-1570(53)	Bong Sik Kim	EM-3825(139)
Balgovind Tiwari	PV-3866(105)	Bong-Jae Jung	EM-4180(142), EM-4183(142), EM-4186(142), EM-4216(142)
Baljinder Kaur	FD-2924(30)		
Beo Deul Ryu	EM-2511(138)	Bong-Jo Kang	ES-1165(135)
Beom Joon Kim	EM-2919(138)	Bong-Man Choi	LT-1735(59), LT-3304(61), LT-3381(61)
Beom Jun Kim	LT-3159(56)		
Beom-Cheol Choi	ES-2305(130)	Bong-Ryeol Park	PE-0745(100), PE-0843(100)
Beom-Hoan O	LT-1735(59), LT-3304(61), LT-3381(61)	Bong-Soo Jin	ES-0890(134), ES-0897(134), ES-0927(134)
	FD-3955(29)	Bong-Soo Kim	FC-1160(122)
Bharathi Ponraj		Bonghoon Kang	FD-3227(37), TF-3225(70)
Bhaskar Parida	ES-2103(130), EM-2255(138), PV-2247(115)	Bonghwan Kim	PV-4241(110), PV-4256(110)
	ES-2076(130)	Bongjo Kang	EM-0744(145)
Bhaskar Paridar		Bongseo Kim	NM-0879(52)
Biaolin Peng	KC-0681(150)	Bongsoo Jin	ES-0902(134)
Bilal Ahmed	FC-3102(117)	Bongyoung Yoo	PV-3242(107)
Bo K. Kang	EM-0700(144)	Boonsoo Kim	TF-0501(72)
Bo Kyeong Choi	FD-0941(34)	Boonchoat Paosawatyanong	FD-4361(30)
Bo Li	ES-2740(136)	Boong-Joo Lee	TF-2993(78)
Bo Min Kim	FM-2817(82)	Boonyang Plangklang	ES-3288(136)
Bo Ra Kim	PE-2744(101)	Boram Jeon	PV-0521(111), PV-0549(111), PV-1054(112)
Bo Wu	FP-0626(26), FP-0629(26), FP-0637(26), FD-0625(43), FD-0630(43)		
	OS-3144(91)	Boris Moroz	FC-3492(118)
Bo Xu		Bui Hung Thang	PE-3857(102)
Bo Yun Jang	NM-0820(52)	Bum-Geun Park	FM-3489(79), FM-1845(86)
Bo-Kyung Kang	FC-3849(123)	Bum-Joon Kim	TF-3834(70)
Bo-Lun Shih	FM-2996(83)	Bum-Suk Lee	TF-1856(69)
Bo-Ping Zhang	FP-4498(25), FP-0489(20)	Bumjoon Kim	PV-4399(103)
Bo-Ram Son	FM-2953(83)	Bunyod Allabergenov	ES-0393(127)
Bo-Sung Choi	ES-3031(131)	Byambasuren Gerelt-Od	PV-1271(113)
Bo-Yun Jang	ES-1390(135), PV-2529(106), PV-2800(106), PV-0542(111), PV-1323(113), PV-1344(113)	Byeong Cheol Jeon	NM-3541(50), NM-3552(50)
	FC-1837(122)	Byeong Dae Sohn	ES-1751(129)
Bo-young Kim		Byeong Geun Kim	PE-2534(101), PE-2980(102), NM-2984(49)
Bock Soon Na	FM-3718(83), FM-3802(83), FM-4015(84), OS-2890(97)		
	FC-0452(118)	Byeong Ryong Lee	LT-0817(64), LT-1078(65)
Bohyun Choi		Byeong Ryoung Lee	LT-1086(65)
Bok-ki Min	NM-0879(52)	Byeong Sam Kim	EM-3698(140)

Author Index

- | | | | |
|------------------|--|--------------------------|--|
| Byeong Uk Ye | LT-3159(56) | Byung-Gon Yu | FM-1676(85) |
| Byeong-Eog Jun | FP-1979(23) | Byung-Gu Jeon | KC-3607(151) |
| Byeong-Kwon Ju | OS-1820(96), TF-4274(71),
TF-1384(74) | Byung-Hyuk Jun | ES-0840(134), ES-0888(134),
ES-1098(135), ES-1469(136) |
| ByeongDae Sohn | ES-1850(129) | Byung-Jin Ma | LT-1534(65) |
| Byeongchan So | TF-2090(76), TF-2449(77) | Byung-Kook Kim | FC-2573(119), FC-1564(117),
FC-1616(122), FC-1705(122),
FC-1837(122), FC-2042(123) |
| Byeongseok Kim | FC-3411(120) | Byung-Moo Moon | PV-2388(106) |
| Byeongwon Kang | TF-1173(74) | Byung-Teak Lee | OS-4417(94) |
| Byongju Kim | TF-3967(71) | ByungYou Hong | PV-1999(115), PV-2004(115),
PV-2383(115) |
| Byoung Jun Min | NM-2691(48) | Byungchan Han | ES-3077(131), FC-0516(118),
NM-3116(49) |
| Byoung Jung Choi | TF-3907(71) | Byungjin Ma | LT-0813(64) |
| Byoung Sung Han | TF-3907(71), EM-4002(141) | Byungjun Lee | OS-1768(96) |
| Byoung Wook Kwon | LT-0398(64), PV-0399(111) | | |
| Byoung Wook Yoo | OS-1937(96) | C | |
| Byoung-Chul Shin | LT-1779(59) | C. H. Jun | PE-1037(98) |
| Byoung-Deog Choi | OS-1453(95), OS-1764(96) | C. K. Wang | LT-0993(64) |
| Byoung-Gi Min | TF-3967(71) | C. M. Cheng | LT-0993(64) |
| Byoung-Ho Kang | PV-3110(107), FM-1321(85) | C. Ma | TF-0606(73) |
| Byoung-Ho Yoo | NM-0355(51) | C. Terkelsen | FC-0367(118) |
| Byoung-In Sang | ES-3528(132) | C. Y. Ho | TF-0606(73) |
| ByoungJin Na | TF-3142(69) | C.-S. Hwang | OS-4323(93) |
| Byoungdeog Choi | PV-2319(106), PV-0958(112),
PV-2317(115) | C.G. Song | OS-2479(90) |
| Byounggon Lee | TF-2019(76) | C.P. Joshi | LT-3451(65) |
| Byueong Uk Ye | TF-3447(70) | Caroline Lee | NM-4505(45) |
| Byung Chan Han | EM-3461(148) | Chadrasekhar Loka | EM-1447(146), TF-1756(75) |
| Byung Chan Jang | PE-2684(101) | Chae Il Cheon | FP-4083(25), FP-1157(27) |
| Byung Chun Choi | FP-1979(23) | Chaehwan Jeong | PV-1340(113) |
| Byung Gwan Lee | ES-2602(130), ES-0243(133) | Chai Yan Ng | OS-0614(87) |
| Byung Oh Jung | OS-1150(95) | Chairul Hudaya | ES-1604(125) |
| Byung Seong Bae | OS-1016(95), OS-1064(95) | Chaiyasit Banjongprasert | NM-4114(51) |
| Byung Yoon Chu | TF-3907(71) | Chaman Singh | TF-2878(67) |
| Byung Youn You | ES-0795(134), ES-0840(134),
ES-1098(135), ES-1122(135),
ES-1469(136) | Chan Ho Yang | FD-1653(40) |
| Byung-Dong Hahn | KC-2251(150), FD-2259(35),
KC-3307(153) | Chan Hwa Hong | OS-2240(97) |

Chan Hwi Kim	FC-0698(122)	Chang-Auck Choi	FD-1272(39)
Chan Park	NM-1610(53)	Chang-Gyoun Kim	FM-1825(86)
Chan Won Park	EM-4550(143)	Chang-Hak Choi	FD-4247(39)
Chan Woo Lee	NM-3213(49)	Chang-Hee Hong	TF-1496(74), TF-1523(75)
Chan Woo Park	FM-3718(83), FM-3802(83), FM-4015(84), OS-2890(97)	Chang-Hoon Han	OS-1453(95)
Chan Young Im	PV-3088(107)	Chang-Hwan Kim	LT-0388(64)
Chan-Hee Kang	FD-1726(40)	Chang-Hwan Wie	PV-1038(112)
Chan-Ho Yang	KC-2925(150)	Chang-Hyun Lim	NM-1430(53), NM-2008(54)
Chan-Hwa Hong	OS-2468(90), OS-2473(90), OS-1820(96), FM-2256(86)	Chang-Il Kim	FD-1272(39), TF-1712(69), TF-1856(69), TF-2132(69)
Chan-Joong Kim	ES-0795(134), ES-0840(134), ES-0888(134), ES-1098(135), ES-1122(135), ES-1469(136), FM-2686(82)	Chang-Taeg Seo	PV-3110(107), FM-1321(85)
Chan-Sei Yoo	FD-1726(40)	Chang-Woo Song	OS-2468(90), OS-2473(90), OS-1820(96), OS-2240(97), FM-2256(86)
Chan-Su Lee	LT-3131(61)	Chang-Yeoul Kim	OS-3152(92), FM-3421(83), EM-3153(148)
Chan-Yong Jeong	OS-2649(88)	Chang-soo Kim	FC-3749(120)
Chan-Young Moon	FD-3829(38)	Chang-won Ahn	FP-4010(19), FD-4051(29)
Chanade Wichasilp	FP-4262(25)	ChangSu Huh	EM-4135(142)
Chang Eui Seo	FP-1803(27), FP-1834(27)	Changhee Hong	EM-2511(138)
Chang Heon Yang	EM-4501(143)	Changhee Lee	FM-0962(84), PV-1665(114)
Chang Hyo Hong	FD-4051(29)	Changho Lee	LT-2885(57)
Chang Hyun Kim	PV-2484(106), PV-1271(113)	Changhyo Hong	FP-0720(19)
Chang Hyun Lee	FD-2104(41)	Changhyun Park	ES-1929(129)
Chang Jeng-Kuei	ES-2538(126)	Changjie Gong	OS-3144(91)
Chang Jun Jeon	FD-3300(30), FD-2939(30)	Changjun Sun	PE-2846(102)
Chang Kook Hong	NM-2583(48)	Changyeon Baek	FD-4247(39)
Chang Kyo Kim	LT-1992(59)	Changyeoul Kim	NM-2257(54), NM-3415(54), LT-4520(66)
Chang Taek Lee	PE-3748(102)	Changyoon Kim	FC-0465(121)
Chang Wan Lee	FM-1825(86), TF-1860(75)	Chanho Yang	FM-2524(86)
Chang Won Ahn	FP-2631(20), FP-2344(23), FP-2494(23), FP-1275(27)	Chanseob Cho	PV-4241(110), PV-4256(110)
Chang Woo Lee	ES-1440(126), ES-1444(127), FC-1432(118), FC-1418(118)	Chao Liu	FP-0626(26), FP-0637(26), FD-0630(43)
Chang Young Koo	OS-1406(95), PV-1617(114), KC-1623(153), KC-1643(153)	Chao-Hsien Wu	TF-2787(77)
		Chardpan Chueaun	FP-4262(25)
		Charusheela Joshi	LT-3495(56)

Author Index

- | | | | |
|------------------------|-----------------------------|--------------------------------|-----------------------------|
| Chatchai Kruea-In | FP-4262(25), FD-1976(34) | | FD-2142(41), FD-2217(41), |
| Chatchai Veranitisagul | FC-3968(117), FC-3949(117) | | FD-2218(42), EM-2209(147), |
| Chek Hai Lim | ES-2615(130) | | EM-2212(147) |
| Chel-Jong Choi | PE-1708(100), PE-1951(101), | Chien-Yie Tsay | OS-2162(97) |
| | LT-1230(65), TF-3180(69), | Chil Hoon Doh | EM-2410(147) |
| | TF-1496(74), TF-1523(75), | Chil Seong Ah | FM-4350(84) |
| | TF-1859(75), TF-1920(76), | Chil-Hoon Doh | ES-2903(126), ES-2858(131), |
| | TF-2157(76), TF-2167(76) | | ES-4260(133), OS-4163(93), |
| Chen Li | KC-1263(151) | | NM-2852(54) |
| Cheng Fan | KC-0573(151) | Chin-chi Hsiang | LT-0993(64) |
| Cheng-Liang Huang | PV-4164(104) | Ching-Hsing Pei | FD-2107(41), FD-2125(41), |
| Cheng-Yu Yang | NM-3534(46), TF-3538(68) | | FD-2142(41) |
| Cheol Hyun Lim | NM-3074(49), NM-3185(49) | Ching-Loon Chen | NM-3534(46) |
| Cheol Min Kim | LT-3807(62) | Chinnambedu Murugesan Raghavan | FP-2938(24), |
| Cheol-Hee Park | NM-2008(54) | | FP-0832(26) |
| Cheol-Hyun Lim | OS-3371(92) | Chisup Jung | FP-3660(28), TF-3688(70) |
| Cheol-Woo Ahn | KC-2251(150), FD-2259(35), | Chittakorn Kornphom | FD-4282(33) |
| | KC-3307(153) | Chiwook Cho | FC-0465(121) |
| Cheolhyun Lim | OS-3310(92), TF-3147(69) | Chong Min Koo | NM-0712(47) |
| Cheolmin Park | PV-3697(104), PV-1392(113) | Chong Yun Kang | FD-1404(39), TF-1627(75) |
| Cheolsoo Sone | LT-3531(61) | Chong-Yun Kang | FD-1389(31), NM-3860(51), |
| Cheon Lee | TF-3142(69) | | TF-1384(74) |
| Cheong Kim | PE-2744(101) | Chonghoon Shin | PV-1586(114), TF-1502(74) |
| Cheong Won Seo | EM-3822(141) | Chonghoon Shin Shin | PV-1573(113) |
| Cheong-Won Seo | EM-2415(147) | Chongmin Kim | EM-0327(144) |
| CheongWon Seo | EM-3753(141) | Chongmin Lee | FM-1742(80) |
| Cheoung-Won Seo | EM-3745(140) | Chongmu Lee | TF-0872(73), TF-0873(73) |
| Chi Hwan Lee | NM-3545(50), NM-3552(50), | Chonlada Donrong | NM-4114(51) |
| | NM-3559(50), NM-3561(50) | Choon-Ho Lee | TF-3271(70), TF-1593(75) |
| Chi-Feng Lin | TF-3538(68) | Choong Woon Lim | ES-1751(129), ES-1796(129) |
| Chi-Jung Chang | FC-3910(117), FC-3913(1200) | Choong-Hyuck Lim | FP-2474(22) |
| Chi-Lon Fern | NM-2784(45) | Christos Panagopoulos | KC-3093(150) |
| Chi-Sun Hwang | OS-4295(93), FM-0962(84), | Chul H. Song | EM-4418(143), EM-0702(145) |
| | TF-4274(71) | Chul Ho Lee | EM-2410(147) |
| Chi-Sup Jung | EM-3695(140) | Chul Jong Choi | PE-1439(100) |
| Chia-Lin Wu | TF-2187(77) | Chul Jong Han | LT-2435(60), LT-4042(62) |
| Chien-Min Cheng | FD-2107(41), FD-2125(41), | Chul Kyu Song | FM-2817(82) |

- | | | | |
|-------------------------|--|-------------------|---|
| Chul Woong Joo | FM-0535(79), FM-1676(85) | Dae Seon Park | LT-1992(59) |
| Chul-Hong Park | OS-4405(89) | Dae-Geun Nam | NM-2733(48) |
| Chul-Sik Cho | PV-3904(109), PV-1178(113) | Dae-Hee Kim | TF-2564(77) |
| Chul-sook Kim | LT-2773(61) | Dae-Ho Son | PV-0521(111), PV-0549(111),
PV-1054(112) |
| Chulho Lee | ES-4260(133) | Dae-Hong Ko | TF-3967(71) |
| Chulmin Youn | PV-1721(114), PV-1926(114) | Dae-Hwan Kim | PV-0549(111), PV-1054(112) |
| Chun-Hao Chang | FD-2107(41) | Dae-Hyun Kim | TF-3967(71) |
| Chun-Kai Wang | FD-2125(41), FD-2142(41) | Dae-Jun Heo | FD-4051(29) |
| Chun-young Jung | ES-1390(135) | Dae-Keun Shin | LT-3368(61) |
| Chung Wung Bark | PV-4053(109), PV-4071(109),
PV-4198(110), PV-4160(105),
PV-1649(114) | Dae-Kuen Shin | OS-3384(92) |
| Chung-Gi Kim | PV-3676(108) | Dae-Su Lee | KC-3383(153) |
| Chur-Hyun Shin | FM-1546(85), FM-1550(85) | Dae-Woo Jeon | OS-2400(90), OS-0326(94) |
| Churl-hee Cho | PV-2529(106) | Dae-Woong Oh | ES-3038(131) |
| Chutima Eamchotchawalit | FD-3903(33) | Dae-Yong Jeong | ES-2602(130), ES-2650(131),
KC-2251(150), KC-3607(151),
FD-2259(35), FD-2639(44),
KC-3307(153) |
| Chyi-Da Yang | PV-4164(104) | Daehee Lee | ES-3630(128) |
| Claudia Groh | FP-2369(23) | Daehong Min | LT-2071(56), LT-2533(60),
PV-4206(110), TF-2100(76),
TF-2449(77) |
| Claudio Ciceroni | NM-4036(46) | Daeseong Pyo | PV-4241(110) |
| Cong Wang | FD-2666(36), LT-3188(55) | Daeyong Eom | LT-2051(60), LT-2201(60) |
| D | | Daeyong Jeong | FD-2809(36) |
| D. H. Kim | TF-2322(69) | Daeyoung Ko | PE-2656(101) |
| D. H. Lee | LT-0993(64) | Daeyoung Kong | PV-4241(110), PV-4256(110) |
| D. Hari Prasad | FC-1564(117), FC-1705(122) | Daiki Ichida | NM-0609(46) |
| D.S Shin | FP-0282(25) | Daiki Maeda | FD-0416(30) |
| D.S. Kelkar | EM-3348(139) | Daiki Tajimi | LT-3017(61), LT-3935(62) |
| Da Jeong Kim | FP-1877(28) | Daisoo Lee | EM-2705(147) |
| Da-Bin Jeon | OS-2277(90) | Dajeong Kim | FP-1815(27), FP-1934(28) |
| Da-Huei Lee | FD-2217(41) | Dalhyun Do | FP-1815(27), FP-1877(28),
FP-1934(28) |
| Da-Hye Kim | FM-2817(82) | Dang Thi Bich Hop | TF-2356(77) |
| Dae Hee Park | LT-4078(62) | Dang-Hoang Hop | OS-3850(93) |
| Dae Ho Lee | NM-0539(52), NM-0714(52) | Daniel Neumaier | NM-4036(46) |
| Dae Ho Yoon | FD-2939(30), LT-4520(66) | | |
| Dae Hwan Park | FC-4500(124) | | |
| Dae Hyeon Kim | TF-4286(72) | | |
| Dae Jun Heo | FP-2631(20) | | |

Author Index

Daniel Song	FD-1342(32), FD-1653(40), FD-1908(34)	Do Kyung Kim	ES-2615(130), FD-4247(39), ES-2630(127)
Danka Gobeljic	FP-1907(21)	Do Kyung Lee	NM-3541(50), NM-3555(50), PV-4037(109)
Danyang Zhang	ES-2179(130), PE-2191(101)	Do Phuc Quan	TF-2356(77)
Dao Vinh Ai	PV-1340(113), PV-1586(114)	Do Thi Kim Anh	TF-2356(77)
Daoheung Bouangeune	PE-1951(101), LT-1230(65)	Do-Geun Kim	FM-3359(83)
David Aili	FC-3620(118)	Do-Woo Kim	TF-1593(75)
David I. Woodward	FP-4543(19)	Doh-Hyung Ryu	FM-2817(82)
David Walker	FP-4543(19)	Dohoon Kim	NM-0464(52), NM-0482(52)
Dea-Yong Jeong	FC-3604(120), PV-1660(114)	Dohwan Kim	FD-1633(40)
Dean S. Keeble	FP-4543(19)	Dohyun Baek	PV-2319(106), PV-2317(115), PV-2911(115), PV-2955(115)
Deaw Aphairaj	NM-0466(52)	Dohyun Kwak	NM-3116(49)
Decha Lapsongphol	FD-4361(30)	Dong Chan Lim	FM-2802(82), TF-3228(70)
Deepak Patil	KC-2251(150)	Dong Chan Shin	OS-2661(90)
Deepak Rajaram Patil	KC-3607(151)	Dong Cheon Kang	NM-3185(49)
Dennys Parkkavan	PV-0797(112)	Dong Gyun Son	NM-3545(50)
Dennyson Savariraj	NM-3344(46), NM-2431(54)	Dong Hee Park	TF-1420(68)
Deok Hyeon Hwang	LT-1731(59)	Dong Hun Yeo	PV-1700(114), FD-2104(41)
Deok Won Seo	PE-2711(99)	Dong Hyun Kang	EM-2607(138), TF-2039(76)
Deok-Ho Cho	PE-1951(101), LT-1230(65)	Dong Hyun Kim	ES-3104(131)
Deok-Hui Nam	PE-2534(101), PE-2980(102)	Dong Ic Lee	PV-3110(107), FM-1321(85)
Deokgi Kim	LT-1026(65)	Dong Ick Son	LT-0398(64), PV-0399(111)
Deokwon Seo	PE-2406(98)	Dong Joo Kwak	LT-4131(62)
Deuk-Hee Lee	PE-2578(98)	Dong Joon Kim	TF-1068(73)
Di Wu	KC-1263(151)	Dong Ju Son	EM-0499(144)
Didem C. Dogan	FC-1861(123)	Dong Jun Kang	EM-4240(142), EM-0987(145), TF-2340(77)
Diem My (Thi) Duong	ES-3817(132)	Dong Keun Lee	TF-2943(77)
Dimitra Vernardou	OS-0967(94)	Dong Min Kim	FC-3240(120), FC-3241(120), PV-3232(107), PV-3236(107)
Dimitris Louloudakis	OS-0967(94)	Dong Phil Kang	NM-0714(52)
Ding Shihua	FD-2950(37)	Dong Pil Kang	NM-0539(52), TF-2340(77)
Dingquan Xiao	FP-0626(26), FP-0629(26), FP-0637(26), FD-0625(43), FD-0630(43), FD-0635(43)	Dong Sik Bae	EM-2410(147)
Dionizy Czekaj	FD-0258(36), FD-0263(34)	Dong Uk Lee	PV-4220(110)
Dirk Henkensmeier	FC-2409(116), FC-0401(121), FC-0811(122)	Dong Won Kim	ES-1751(129)
Do Bin Hyun	PE-2578(98)		

Dong Woo Ju	TF-4414(72)	Dong-Wan Kim	ES-3264(131), ES-3261(128), NM-3213(49)
Dong Wook Shin	FC-1705(122)		
Dong Yeong Kim	LT-3353(55), PV-3468(104), LT-3517(61), LT-3531(61)	Dong-Won Choi	FD-3135(37), OS-2111(97)
Dong-Chan Lim	PV-3242(107)	Dong-Won Kim	FC-2765(119), ES-1485(136)
Dong-Chan Shin	OS-2670(91), OS-2675(91)	Dong-Won Lee	EM-1761(137)
Dong-Cheol Oh	TF-2960(67)	Dong-Won Yun	EM-1761(137)
Dong-Cheon Kang	NM-3074(49), OS-3310(92), OS-3371(92), TF-3147(69)	Dong-Yu Kim	FM-4404(84), FM-1717(86)
Dong-Eun Kim	EM-3512(140), EM-2823(148)	DongSoo Paik	FP-2719(24)
Dong-Hee Lim	FC-2409(116)	Donggu Lee	PV-1665(114)
Dong-Hee Park	PV-1038(112)	Dongha Kim	ES-3630(128)
Dong-Hee Rhie	EM-2842(148)	Dongheon Lee	TF-2090(76)
Dong-Hoon Jang	FC-1160(122)	Donghun Yeo	FD-2809(36)
Dong-Hoon Lee	FC-4124(123)	Donghwan Kim	PV-3726(108), PV-4559(105), FM-1825(86)
Dong-Hun Lee	PV-3676(108)		
Dong-Hun Yeo	FC-3587(120), FC-3604(120), PV-1660(114), EM-3520(140)	Donghyun Kim	NM-2733(48)
Dong-Hwan Lee	EM-1761(137)	Dongjin Byun	EM-1396(146)
Dong-Hwan Lim	FP-0426(25), FD-0421(43)	Dongkyun Shin	LT-0313(63)
Dong-Jin Byun	PV-1038(112)	Dongsik Bae	NM-1610(53)
Dong-Jin Kim	FP-1979(23), ES-3194(131)	Dongsuk Han	OS-0230(94)
Dong-Jin Lee	LT-3304(61), LT-3381(61)	Dongsun Seo	TF-0501(72)
Dong-Jin Shin	FM-1507(85)	Dongwoo Kim	FD-3663(30)
Dong-Ju Kim	OS-3039(91)	Dongwoo Suh	NM-0917(45)
Dong-Kyu Park	PV-3676(108)	Dongwook Shin	FC-3411(120), FC-2042(123)
Dong-Min Lee	LT-3870(62)	Dongyoon Khim	FM-1717(86)
Dong-Seok Yang	TF-1173(74)	Donhaeng Lee	NM-2257(54)
Dong-Sik Bae	ES-0897(134), PV-4009(109)	Donhwan Kim	NM-1451(45)
Dong-Sing Wuu	PV-4164(104)	Doo Soo Kim	LT-0728(64), LT-0761(64)
Dong-Soo Choi	TF-3225(70)	Doo-Hee Cho	FM-0535(79), FM-1676(85)
Dong-Soo Park	ES-2650(131), KC-2251(150), KC-3607(151), FD-2259(35), KC-3307(153)	Doohun Kim	ES-2903(126), ES-2858(131)
Dong-Soon Kwag	LT-1292(65), EM-4386(143), EM-1141(145)	Doopyo Lee	TF-3873(70)
Dong-Suk Han	EM-0825(145)	Doru C. Lupascu	FP-1907(21)
		Dragan Damjanovic	FP-2610(20)
		Duc H. Tran	TF-1173(74), TF-2356(77)
		Duc Tai Tong	FM-1609(80)
		Duc Thang Le	FD-3300(30), FD-2939(30)
		Dwight Viehland	FP-0306(20)

Author Index

E

E. Aperathitis OS-1697(96)
 E. Fred Schubert LT-0934(55), LT-3531(61)
 E. Gagaoudakis OS-1697(96)
 E. Iliopoulos OS-1697(96)
 E. S. Nam PE-1037(98)
 E.Yu. Zykova TF-4355(67)
 Eigo Kobayashi NM-1991(47)
 Elias Aperathitis OS-0967(94)
 Emanouel Spanakis OS-0967(94)
 Ennio Carnevale NM-3431(46)
 Eou Sik Cho EM-2081(147)
 Eric A. Stach ES-3104(131)
 Erik Christensen FC-3620(118), FC-0643(118)
 Erik V. Johnson PV-0562(111)
 Euh Duck Jeong OS-4163(93)
 Eui-Jung Yun OS-1016(95), OS-1064(95)
 Eui-Tae Kim PV-4118(110), FM-4094(81),
 EM-4102(142)
 EuiJeong Son TF-3326(70)
 Euijoon Yoon LT-3466(55)
 Eul Yong Shin FM-1546(85)
 Eul-Yong Shin FM-1550(85)
 Eun Chang Choi PV-2004(115), PV-2383(115)
 Eun Hyuk Chung OS-4163(93)
 Eun J. Shin EM-0702(145)
 Eun Ju Kim FP-2938(24), FP-0832(26)
 Eun Kyu Kim PV-4220(110), NM-4225(51)
 Eun Sik Jung EM-4501(143)
 Eun Su Park PV-3105(107)
 Eun Suk Park OS-4295(93), TF-4274(71)
 Eun-Bee Kim NM-3376(50)
 Eun-Ho Choi TF-1770(75)
 Eun-Hue Nam PV-3676(108)
 Eun-Hwa Jeong EM-1569(146)
 Eun-Joo Lee FD-1695(40)
 EunAe Cho FC-2409(116), FC-4195(121),

FC-4213(121)
 EunChang Choi PV-1999(115)
 Eunbyul Go NM-2257(54)
 Eung Soo Kim FD-3300(30), FD-0645(34),
 FD-0941(34), FD-1211(44)
 Eungsoo Seo EM-3512(140)
 Eunhae Koo FM-3767(83), FM-3795(81)
 Eunhee Lee NM-3415(54)
 Eunjin Jung LT-0750(64), OS-1196(95),
 LT-1281(65)
 Eunmi Choi ES-2485(127), PV-2484(106),
 PV-1271(113), TF-1068(73)
 Eunsae Ahn ES-1924(129)
 Eunsoo Jeong FD-3663(30)
 Evaldas Tornau FP-2695(23)
 Evelyn N. Wang ES-1043(127)
 Evgency Tsymbal KC-3093(150)
 Ey Goo Kang EM-4501(143)

F

F.K. Shan OS-4341(93), OS-4344(93)
 Fabao Zhang KC-0573(151)
 Fan Zhang OS-1470(96)
 Fang-Zhou Yao FP-0493(20), FP-1907(21)
 Fangxu Li FP-0626(26), FP-0629(26),
 FD-0625(43), FD-0630(43)
 Feng Xiang FD-2337(42)
 Feng-Ming Pai TF-2787(77)
 Feng-Yi Su EM-2212(147)
 Francesca Brunetti NM-4036(46)
 Franco Bogani NM-3431(46)
 Fredrik Karlsson NM-4144(51)

G

G. Bersuker TF-4067(71)
 G. J. Nam TF-2322(69), NM-2327(54)
 G. Kiriakidis OS-1697(96)

G. Michael	OS-1697(96)	Guan-Jun Zhang	EM-3997(139)
Ga Hyun Choi	EM-0692(144)	Gui-Shik Kim	ES-1379(135)
Ga Won Lee	PV-3713(108), PV-4233(110)	Gum Jae Park	EM-2410(147)
GaWon Lee	PV-4000(109)	Gum-Jae Park	ES-0890(134)
Gabseok Seo	NM-2974(54)	Gumjae Park	ES-4260(133), ES-0927(134)
Gaku Isobe	FD-1413(32)	Gun Eik Jang	PV-1883(114), TF-1871(75), TF-1901(75), TF-2033(76)
Gang-Jun Baeg	NM-2384(47)	Gun-Hwan Lee	FM-1335(79), NM-1654(53)
Gee Hong Kim	FD-2636(36)	GunEik Jang	PV-3309(108)
Geon-Woong Lee	NM-2384(47)	Gunwoo Kim	ES-4459(133)
George Iliadis	OS-0967(94)	Guo-Qiang Su	EM-3997(139)
George Kiriakidis	OS-0949(87), OS-0967(94)	Guobin Hu	TF-2370(77)
George Ting-Kuo Fey	ES-2538(126)	Guoxi Liu	KC-1262(153), KC-1574(153)
Geun Chul Park	NM-1349(53), TF-2223(68), TF-1358(74)	Gwan Ho Jung	PV-3468(104)
Geun Jun Park	FP-2863(24)	Gwangseok Song	EM-2705(147)
Geun-Young Im	ES-3434(132)	Gwangseok Yang	FM-1742(80), EM-4210(139)
Geunho Yoo	LT-2071(56)	Gwangsun Seo	OS-1196(95), LT-1281(65)
Gi Heon Kim	FM-2311(86)	Gwi-Yeol Kim	TF-0848(73)
Gi Hwan Kang	PV-3730(109)	Gwomei Wu	FC-2470(119)
Gi Won Yoo	PE-2684(101)	Gwon Deok Seo	FC-0698(122)
Gi-Seok Heo	OS-2670(91), OS-2675(91)	Gye-Choon Park	PV-3991(109)
Gi-Tae Joo	FD-3227(37), TF-3225(70)	Gyeong-Tak Park	FC-2765(119)
Gi-Wan Hwang	FM-4094(81)	Gyoujin Cho	EM-1448(137)
Giacomo Ulisse	NM-4036(46)	Gyoungho Lim	ES-2076(130), ES-2103(130), EM-2255(138), PV-2247(115)
Gianpaolo Susanna	NM-4036(46)	Gyu Cheol Yoon	FD-1250(39), FD-1289(39)
Giichiro Uchida	NM-0609(46)	Gyu-Jae Jeong	LT-2176(60)
Gil-Song Kim	TF-1859(75)	Gyu-seok Cho	OS-2105(97)
Go Kawamura	PV-0445(103)	GyuSeok Cho	FM-0442(84), FD-2288(42), EM-0574(144)
Go Un Park	EM-4240(142), EM-0987(145)	Gyujin Oh	NM-4225(51)
Gobwute Rujijanagul	FD-3646(38), FD-1916(41), FD-1956(41), FD-1976(34)	Gyung Hyun Ryu	FP-1157(27), FP-1243(27)
Goo-Hwan Jeong	EM-3333(137)	Gyung-Seok Han	LT-2715(60), LT-2731(60)
Goojin Jeong	ES-3434(132)	Gyungse Park	ES-3279(132)
Gook Hyun Ha	FD-2104(41)		
Gowoon Choi	NM-2733(48)		
Gu-Gon Park	FC-1047(116), FC-1855(123), FC-1861(123)		

Author Index

H

- | | | | |
|----------------|--|---------------------|--|
| H. G. Cho | TF-2322(69) | Hajime Nagata | FP-1103(19), FP-0565(26),
FP-1286(27) |
| H. R. Garcia | FC-0367(118) | Hak-Jong Choi | OS-2874(91) |
| H.-J. Kim | OS-4323(93) | Hak-Jun Kim | OS-3456(92) |
| H.D. Lee | TF-4067(71) | Hak-Soon Choi | PV-1905(114) |
| H.S. Shin | TF-4067(71) | Hak-Yoon Kim | FC-3591(120) |
| Ha Bich Trinh | FD-1638(40) | Han Jae Shin | PV-3110(107), FM-1321(85) |
| Ha Na Yoon | ES-3412(125) | Han Youl Ryu | LT-3517(61) |
| Hae In Choi | FP-1877(28), FP-1934(28) | Han-Ki Kim | OS-3039(91), OS-3084(88) |
| Hae Jin Kim | FP-2938(24), FP-0832(26),
NM-3213(49) | Han-Moon Cho | FC-4124(123) |
| Hae Jin Seog | FP-2344(23) | Han-Sol NamKung | PV-3676(108) |
| Hae June Je | FC-1616(122), FC-2042(123) | Han-Soo Kim | TF-1712(69) |
| Hae June Lee | TF-3326(70) | Han-Su Cho | OS-2400(90) |
| Hae Moo Lee | FC-0300(121) | Han-Youl Ryu | LT-0619(55) |
| Hae Woong Park | ES-1537(126) | HanGoo Cho | EM-1569(146) |
| Hae-Dong Yim | LT-3304(61), LT-3381(61) | Hang Ju Ko | TF-4286(72) |
| Hae-Jin Hwang | NM-2509(48), NM-1425(53) | Hanmi Kang | FD-0859(34) |
| Hae-June Je | FC-1705(122) | Hans Aage Hjuler | FC-0367(118) |
| Hae-Seok Lee | PV-4559(105) | Hans Christen | TF-2990(78) |
| Hae-Weon Lee | FC-1564(117), FC-1305(122),
FC-1616(122), FC-1705(122),
FC-1837(122), FC-2042(123) | Hans Kungl | FP-2354(19) |
| Hae-Won Cheong | ES-1615(125), ES-1457(128),
ES-1152(135) | Hans-Joachim Kleebe | FP-0235(21), FP-0237(25) |
| Hae-Yong Lee | LT-1779(59), LT-1786(59) | Hansoo Park | FC-2270(123) |
| Haegyeom Kim | ES-1537(126) | Hao Cui | LT-0952(64) |
| Haejin Hwang | FC-2588(119) | Hao Van Bui | TF-0963(67) |
| Haekyoung Kim | FC-0732(122) | Harneet Kaur | OS-4395(88) |
| Haena Yim | ES-1808(129), ES-1487(136),
FD-1498(39) | Haruna Watanabe | PV-0921(112) |
| Hai-Bao Mu | EM-3997(139) | Haruumi Kamei | FP-1435(27) |
| Hai-kun Liu | LT-1238(58) | Hashim Naseer | FP-1034(26) |
| Haibo Xu | NM-3860(51) | Hea-Dong Yim | LT-1735(59) |
| Haibo Zhang | FP-4454(22) | Hee Chul Lee | FD-3340(38), NM-3254(49),
FM-3476(83), EM-3266(148) |
| Haitao Yu | EM-0683(137) | Hee Dong Kim | LT-3944(62), LT-1086(65) |
| Haiwoong Park | ES-1098(135), ES-1122(135) | Hee Je Kim | NM-2431(54) |
| | | Hee Jin Ahn | TF-3550(70) |
| | | Hee Jin Jeong | NM-2384(47) |
| | | Hee Jo Song | NM-3213(49) |
| | | Hee Soo Choi | PV-2484(106), PV-1271(113), |

	TF-1068(73)	Hideyuki Ikeda	FD-0528(33)
Hee Woong Shin	LT-0817(64), LT-1078(65), LT-1086(65)	Hideyuki Suenaga	FD-1365(30)
Hee Young Lee	OS-2814(91), OS-1406(95), PV-1617(114), KC-1623(153), KC-1643(153)	Himchan Cho	EM-2919(138)
Hee-Eun Song	PV-3726(108), PV-3730(109), PV-1323(113)	Hiroaki Takeda	FP-4127(22)
Hee-Je Kim	PV-0797(112), PV-0807(112), PV-0918(112), NM-0933(52)	Hiromi Shima	FP-2086(20), FD-0790(33)
Hee-Jun Kim	LT-2715(60), LT-2731(60)	Hironori Fujisawa	FP-2012(23)
Hee-Sung Kim	TF-2993(78)	Hiroshi Funakubo	FD-0790(33)
Hee-Sung Ku	OS-2243(90)	Hiroshi Hayashi	FP-1201(27)
Hee-Woo Rhee	FD-3379(38), NM-3376(50)	Hiroshi Hiroshima	EM-2542(147)
Hee-Young Lee	TF-0851(73), TF-1896(75)	Hiroshi Uga	FD-0569(32)
Hee-Young Park	FC-2409(116), FC-4213(121)	Hirotaka Maenosono	FM-2560(79)
HeeLak Lee	FD-1399(35)	Hiroyuki Muto	PV-0445(103)
Heejae Shim	PE-2406(98), PE-2656(101)	Hisashi Minemoto	FP-1435(27)
Heeje Kim	NM-3344(46)	Hitesh Borkar	FD-4472(30)
Heekyu Choi	ES-1988(129)	Hitomi Akutsu	FP-4127(22)
Heeok Kim	OS-4295(93), TF-4274(71)	Hitoshi Ohsato	FP-2550(21)
Heesoo Choi	ES-2485(127)	Ho Ik Du	TF-3907(71), EM-4002(141)
Heewoong Lee	NM-0879(52)	Ho Jin Yun	PV-3713(108), PV-4233(110)
Heeyoung Jung	FM-0962(84)	Ho Jung Syn	PV-1665(114)
Heide Humburg	FP-0235(21)	Ho Kwan Kang	LT-0388(64)
Henkensmeier Dirk	FC-4195(121), FC-4213(121)	Ho Myoung An	LT-1078(65)
Heon Lee	OS-2874(91), OS-3321(92)	Ho Nhu Thuy	PV-1905(114)
Heui-Chun An	LT-3735(57)	Ho Seong Lee	FC-3849(123), OS-0867(94), OS-1314(95)
Heung Ho Choi	FD-4245(35)	Ho Soung Ryu	LT-0228(63), LT-3648(66)
Hi Deok Lee	PV-3713(108), PV-4233(110)	Ho Sun Lim	FM-1544(85)
Hi Gyu Moon	TF-1627(75)	Ho Tak Yu	EM-1447(146), TF-1756(75)
Hi-Deok Lee	TF-4137(71)	Ho Young Chung	LT-3944(62)
HiDeok Lee	PV-4000(109)	Ho-Beom Kwon	TF-1896(75)
Hideki Takagi	EM-2542(147)	Ho-Gyeong Yun	NM-1381(53)
Hideo Hosono	OS-4321(88)	Ho-Gyu Yoon	EM-3520(140)
Hideto Kawashima	FP-1829(22)	Ho-Jun Lee	TF-3326(70)
Hideya Kumomi	OS-4321(88)	Ho-Jung Sun	ES-3279(132)
		Ho-Myoung Ahn	LT-1086(65)
		Ho-Myoung An	LT-0817(64), OS-2182(97)
		Ho-Sung Kim	OS-2747(91)
		Ho-Young Cha	PE-0745(100), PE-0843(100)

Author Index

Ho-Young Joo	FD-1747(33), PV-1721(114)	Hosang Lee	FD-1747(33), PV-1721(114),
Ho-Young Lee	FC-3849(123)		PV-1926(114)
Ho-yong Joo	PV-1926(114)	Hu Young Jeong	LT-3159(56)
HoJin Yun	PV-4000(109)	Huaduo Shi	KC-1574(153)
Hoang Ba Cuong	OS-4417(94)	Huai Zheng	LT-0874(57)
Hock-Lye Ong	FP-1071(21)	Hugo Keller	KC-2835(150)
Hodol Yoo	LT-2176(60)	Hui Eun Kim	FD-3049(37)
Hohyeon Ryu	FM-3898(84)	Huihua Yu	KC-0450(151)
Hohyoun Jang	FC-1867(123)	Huiqing Fan	KC-0681(150)
Hoichang Yang	EM-2919(138)	Huiqing Liu	ES-0706(126)
Hojun Ryu	FM-4350(84), FM-2311(86)	Hwa Jin Park	LT-4378(63)
Hojung Kim	NM-0539(52)	Hwa Sub Oh	LT-0228(63), LT-3648(66)
Hong Doo Kim	OS-0757(94)	Hwa-Jun Lee	LT-3851(62)
Hong Goo Choi	PE-2406(98), PE-2711(99), PE-2656(101)	Hwan-Sun Kim	PV-2388(106)
Hong Je Choi	EM-4007(141)	Hye Jin An	PV-3341(108)
Hong Koo Baik	TF-4041(71)	Hye Jin Kim	FD-3316(37), FD-1891(41)
Hong Seung Kim	OS-1470(96)	Hye Jung Suk	FM-1555(85), FM-1581(85)
Hong Shin Kim	FC-1432(118), FC-1418(118)	Hye Myeong Kim	LT-4078(62)
Hong Wang	FD-2337(42)	Hye Ryoung Park	ES-1619(136), ES-1666(136)
Hong-Jin Kim	FM-3421(83)	Hye Yong Chu	FM-0535(79), FM-3718(83), FM-3802(83), FM-4015(84), OS-2890(97)
Hong-Ju Park	FM-4404(84)	Hye-Rin Jung	TF-0966(73), EM-1002(145)
Hong-Ki Kim	ES-3925(133), ES-4383(133)	Hye-Rin Yi	LT-2175(57)
Hong-Ki Lee	ES-2305(130), NM-2310(54)	Hye-Ryeon Yu	ES-1152(135)
Hong-Sik Shin	TF-4137(71)	Hye-Won Park	ES-1988(129)
Hong-wei Zhao	FC-4264(121), FD-1030(31)	Hyegsoon An	FC-1616(122), FC-2042(123)
HongSeung Kim	OS-0809(94)	Hyejin Choi	ES-1927(129)
Hongdoo Kim	OS-1492(96)	Hyekyoung Choi	PV-2976(106), PV-3341(108)
Hongsoo Choi	FD-4207(38), FD-2028(31), FD-2062(32)	Hyeok Jin Hong	LT-3807(62)
Hongzhong Ma	EM-0683(137)	Hyeon Deok Yang	TF-3180(69), TF-1920(76)
Hoon Joo Yang	FM-1555(85)	Hyeon Hwa Lee	EM-4240(142), EM-0987(145)
Hoon Kyu Shin	LT-4131(62), OS-4140(93)	Hyeon Jin Seo	TF-4414(72)
Hoon-Kyu Shin	EM-3512(140), EM-4501(143), EM-2823(148)	Hyeon Jin Yu	NM-1430(53), NM-2008(54)
HoonKyu Shin	EM-4325(142)	Hyeon-Cheol Kim	LT-2907(57)
Horyeong Lee	TF-4137(71)	Hyeon-Gu Kang	ES-3743(132)
		Hyeon-Kyun Noh	OS-0336(88)

Hyeon-Seok Seo	OS-3456(92)	Hyongsun Park	PV-0958(112)
Hyeondeok Jeong	ES-1098(135)	Hyuck-In Kwon	OS-2473(90), OS-2649(88)
Hyeong-Ho Park	LT-0388(64)	Hyukjae Lee	ES-0274(134)
Hyeong-Jin Jung	EM-4180(142), EM-4216(142)	Hyun Cho	LT-2713(60), LT-0373(63), LT-0376(63), TF-2721(77)
Hyeonggi Lee	LT-0799(64), LT-0808(64)		
Hyeongrae Cho	FC-0811(122)	Hyun Du Jeong	FD-4245(35)
Hyeongsik Park	PV-1340(113), PV-1573(113), PV-1586(114), TF-1502(74)	Hyun Ho Lee	PV-1665(114)
		Hyun Hwi Lee	PV-4305(105)
Hyeonseop Shin	TF-3873(70)	Hyun Kyu Kang	FC-0698(122)
Hyeonsu Park	FD-1399(35)	Hyun Pyo Hong	EM-4550(143)
Hyeri Kim	FM-2686(82), PV-3088(107)	Hyun Soo Kim	LT-1992(59)
Hyerim Cho	EM-3054(148)	Hyun Sung Yu	LT-1739(57)
Hyeong-Gyu Lee	FP-2863(24), FD-1726(40)	Hyun Woo Choi	LT-4229(63)
Hyo Jin Jeon	PE-2684(101)	Hyun Woo Lee	TF-4041(71)
Hyo Jin Kim	NM-3628(50), TF-4286(72)	Hyun Woo Seo	FC-3241(120), PV-3232(107), PV-3236(107)
Hyo Jung Kim	PV-4305(105)		
Hyo Min Kang	FD-4073(38)	Hyun Wook Shin	NM-3628(50)
Hyo Sik Chang	PV-1417(113)	Hyun-Beom Shin	LT-0388(64)
Hyo Soon Shin	PV-1700(114), FD-2104(41), EM-3889(141)	Hyun-Cheol Song	FD-1389(31)
		Hyun-Chul Ju	FC-3240(120)
Hyo Tae Kim	OS-3152(92), EM-3153(148)	Hyun-Deok Yang	PE-1951(101), TF-2157(76), TF-2167(76)
Hyo Yeol Park	EM-4240(142), EM-0987(145)		
Hyo-Soo Son	LT-2151(60), LT-2172(58)	Hyun-Duk Yang	TF-1496(74)
Hyo-Soon Shin	FC-3587(120), FC-3604(120), PV-1660(114), EM-3520(140)	Hyun-Jin Kim	OS-1764(96)
		Hyun-Jun Choi	LT-2151(60)
Hyojung Kim	ES-3279(132)	Hyun-June Jang	TF-1198(74)
Hyokun Son	OS-2243(90)	Hyun-June Jung	TF-3184(68)
Hyon Hee Yoon	FC-2476(119)	Hyun-Min Choi	PV-3061(107)
Hyosoon Shin	FD-2809(36)	Hyun-Seok Ko	NM-2583(48)
Hyoungh-Juhn Kim	FC-2409(116), FC-4195(121), FC-4213(121), FC-0401(121), FC-0811(122)	Hyun-Seop Shin	ES-0945(134)
		Hyun-Shin Park	PE-2448(101)
Hyoungh-Seuk Choi	LT-4332(63), EM-4328(142)	Hyun-Soo Kim	ES-0890(134), ES-0897(134), ES-0902(134), ES-0927(134), ES-1475(136)
Hyoungh-Su Han	FD-0220(29), FP-0720(19), FP-4010(19), FD-4051(29), FP-0584(26), FP-5006(21)		
		Hyun-U Ko	NM-2830(49)
Hyoungh-Sun Park	OS-1453(95), OS-1764(96)	Hyun-Woo Shim	ES-3261(128)
		Hyun-Yong Lee	PV-4009(109)

Author Index

- | | | | |
|-----------------|---|----------------|--|
| Hyun-Young Lee | FP-4010(19), FP-0584(26) | Hyunik Park | NM-1451(45), FM-1742(80),
FM-3687(80) |
| HyunJun Jung | FD-1908(34) | Hyunji Shin | OS-0757(94) |
| HyunMin Lee | OS-0809(94) | Hyunjoon Jin | OS-1768(96) |
| HyunSeok Lee | ES-1808(129), FD-3315(37), E
S-1487(136) | Hyunjun Yoo | ES-2097(125) |
| Hyunah Kwon | PV-3468(104) | Hyunjung Lee | EM-4442(143) |
| Hyunchul Jang | TF-3967(71) | Hyunjung Shin | ES-2097(125) |
| Hyunchul Kim | ES-2097(125) | Hyunkoo Lee | FM-0962(84) |
| Hyung Bin Son | PV-1271(113) | Hyunsoo Kim | LT-0750(64), OS-1196(95),
LT-1281(65) |
| Hyung Chul Ham | FC-2409(116) | Hyunsung Jung | TF-3533(68), EM-3153(148) |
| Hyung Jo Park | LT-3762(61) | Hyunsung Ko | TF-0872(73), TF-0873(73) |
| Hyung Joo Lee | LT-3648(66) | Hyunwoong Seo | NM-0609(46), NM-0933(52) |
| Hyung Ju Kim | FC-2664(119) | | |
| Hyung Jun Lim | FD-2636(36) | I | |
| Hyung Koun Cho | NM-0332(51), OS-1150(95),
NM-1430(53), NM-1512(53) | I S Kim | FD-0779(33) |
| Hyung Seok Oh | OS-4140(93) | I. Kortidis | OS-1697(96) |
| Hyung Wook Choi | PV-4053(109), PV-4071(109),
PV-4198(110), PV-4160(105) | I.K. Gainullin | TF-4355(67) |
| | | I.P. Ivanenko | TF-4355(67) |
| Hyung Yong Ji | PV-2247(115) | Ick-Joon Park | OS-2649(88) |
| Hyung-Do Yoon | LT-0728(64) | Igor Bdikin | FP-2695(23) |
| Hyung-Ho Park | NM-2008(54) | li-Ho Kim | NM-0332(51) |
| Hyung-Jin Choi | PV-3303(103), TF-3184(68) | li-Won Kim | FD-0717(43) |
| Hyung-Joon Kim | OS-1453(95), OS-1764(96) | Il Doo Chung | TF-2340(77) |
| Hyung-Jun Kim | FD-2666(36) | Il Shik Moon | EM-1448(137), NM-1438(47) |
| Hyung-Jun Song | PV-1665(114) | Il Yeong Kim | LT-1992(59) |
| Hyung-Suk Woo | PV-3676(108) | Il-Hong Choi | EM-4183(142) |
| Hyung-Tae Lim | ES-1988(129), FC-0698(122) | Il-Kyu Park | LT-2172(58) |
| Hyung-Won Kang | FP-2863(24), FD-1726(40) | Il-Won Kim | KC-3383(153) |
| Hyung-sool Lee | ES-1615(125) | III Won Kim | FP-4010(19), FD-4051(29),
FP-2344(23), FP-2494(23),
FP-1034(26), FP-1275(27) |
| HyungYong Ji | ES-2076(130), PV-0383(111) | | |
| Hyungbin Son | FC-3591(120) | Im Jun No | FD-2639(44) |
| Hyunghoon Kim | OS-0867(94) | Imgon Hwang | ES-1927(129) |
| Hyungjoon Kim | PV-0958(112) | In Ho Kang | PE-1051(100) |
| Hyungsub Kim | ES-1537(126) | In-Ae Kim | PV-1660(114) |
| Hyunho Joo | FC-1867(123) | In-Hwan Lee | OS-2400(90), OS-0326(94), |
| Hyunho Kim | ES-1043(127) | | |

	NM-1381(53)	Ja-Gyeong Gu	OS-2182(97)
In-Joon Yoo	TF-3228(70)	Ja-Soon Jang	LT-4239(56), LT-3368(61), OS-3384(92), LT-4217(62), LT-3735(57), LT-2907(57), LT-2885(57), LT-0952(64)
In-Sung Kim	FP-0460(26), FP-0485(26), FD-0455(43)		
In-Tae Seo	NM-3860(51)		
In-Tak Cho	OS-2649(88)	Jae Bon Koo	FM-3718(83), FM-3802(83), FM-4015(84), OS-2890(97)
In-Yong Eom	OS-4295(93), TF-4274(71)	Jae Cheol Shin	NM-3628(50), OS-2296(88), TF-4286(72)
In-Yong Kim	PE-2448(101)		
InYea Kim	OS-3363(92)	Jae Chun Lee	FC-1160(122), NM-0355(51), FD-0676(43)
Inhye Kim	NM-0879(52)		
Inhye Kwon	FC-0516(118)	Jae Eun Hwang	OS-0757(94)
Injin Seo	EM-3499(140), EM-3496(148), EM-3497(149)	Jae Ha Lee	ES-1751(129), ES-1796(129)
Insoo Choi	FC-4195(121), FC-4213(121)	Jae Hak Jung	PV-4551(115)
Inwoong Hwang	TF-3873(70)	Jae Hong Kim	NM-3541(50), NM-3545(50), NM-3552(50), NM-3555(50), NM-3559(50), NM-3561(50), PV-4037(109), TF-3550(70)
Inyoung Kim	FM-1206(85)		
Iqbal Mahmud	FP-3045(19)		
Isnaini Isnaini	LT-4042(62)		
J			
J Burton	KC-3093(150)	Jae Hoon Lee	LT-1078(65)
J S Song	FD-0779(33)	Jae Hyun Kim	PV-3121(107)
J. H. Sug	FD-2226(42)	Jae Hyung Jang	PV-2383(115)
J. Hinke	FC-0367(118)	Jae Il Hong	FP-2683(23)
J. J. Kim	PE-1037(98)	Jae Jong Lee	FD-2636(36)
J. J. Tang	LT-0993(64)	Jae Kook Yoon	ES-3412(125)
J. Lee	LT-0993(64)	Jae Kyeong Jeong	OS-0765(88)
J. Oh	TF-4067(71)	Jae Kyoung Mun	PE-1037(98)
J. Park	OS-4323(93)	Jae Kyun Kwon	LT-2885(57)
J. T. Lee	FD-2226(42)	Jae Layng Park	FC-3218(120)
J. U. Kim	TF-2322(69), NM-2327(54)	Jae Min Song	OS-1016(95)
J.-H. Kwon	OS-4323(93)	Jae Shin Lee	FP-2631(20), FP-1275(27)
J.-H. Yang	OS-4323(93)	Jae Sung Song	FP-2934(24)
J.C. Lee	TF-4067(71)	Jae Won Hwang	FM-2737(82)
J.H. Yum	TF-4067(71)	Jae Won Kang	PV-1700(114)
J.S. Kwak	OS-2479(90)	Jae Won Moon	FD-1908(34)
Ja Myung Gu	EM-0498(138)	Jae Wook Bin	LT-4131(62)
		Jae Wook Lee	NM-2583(48), NM-2691(48)
		Jae Y. Park	FC-2727(116), NM-2770(49)

Author Index

Jae Yeong Park	ES-2899(127)	Jae-Sub Hahn	PV-3080(107)
Jae Yong Sim	EM-3822(141)	Jae-Sung Song	FP-0485(26)
Jae Yuk Kim	FC-3849(123)	Jae-Uk Lee	PE-2578(98)
Jae-Baek Ju	ES-1165(135)	Jae-Won Lee	ES-1537(126), ES-3194(131)
Jae-Chan Kim	ES-3264(131), ES-3261(128)	Jae-Wook Lee	NM-2582(48)
Jae-Cheol Park	OS-2747(91)	Jae-Yong Sim	EM-3745(140), EM-3836(141), EM-2415(147)
Jae-Chul Song	OS-0326(94)	Jae-Young Lee	PE-2299(101), PE-2301(101), ES-2305(130), NM-2310(54)
Jae-Eun Pi	OS-4295(93), TF-4274(71)	Jae-Yuk Kim	FC-2826(119), FC-4046(121)
Jae-Gil Lee	PE-0843(100)	JaeYong Sim	EM-3753(141)
Jae-Ha Kim	FM-0560(84)	Jaeun Hwang	OS-1492(96)
Jae-Hee Han	ES-3442(132), EM-2081(147)	Jaehee Cho	LT-0934(55), LT-3531(61)
Jae-Heon Shin	OS-2468(90), OS-2473(90), OS-1820(96), FM-2256(86)	Jaehee Lee	FM-4094(81)
Jae-Ho Rhee	EM-1294(146), EM-1307(146), EM-1312(146)	Jaeheon Shin	OS-2240(97)
Jae-Hong Kim	NM-3561(50)	Jaeho Choi	ES-2076(130), ES-2103(130), EM-2255(138), PV-2247(115)
Jae-Hong Lim	FM-2802(82), PV-3242(107), TF-3228(70)	Jaehoon Jung	EM-3058(139)
Jae-Hun Kim	ES-3434(132)	Jaehoon Park	OS-0757(94), OS-1492(96), FD-1136(44)
Jae-Hwan Lee	LT-2175(57)	Jaehwan Kim	LT-2071(56), LT-2533(60), NM-2830(49), PV-4206(110), TF-2100(76)
Jae-Hyeok Lee	NM-2582(48)	Jaehyeong Lee	PV-2319(106), PV-3080(107), PV-1340(113), PV-2317(115), PV-2911(115), PV-2955(115)
Jae-Hyeon Ko	PV-3341(108)		PV-3697(104), PV-4173(110)
Jae-Hyeong Park	LT-3381(61)	Jaehyun Cho	FM-0535(79), FM-1676(85)
Jae-Hyuk Park	FD-3590(31)	Jaehyun Moon	OS-0230(94)
Jae-Hyun Kim	FM-2420(86), FD-1136(44)	Jaehyung Park	LT-3870(62)
Jae-Hyun Lee	FM-1546(85)	Jaekwan Kim	ES-4539(125)
Jae-Hyung Park	EM-0825(145)	Jaephil Cho	LT-4078(62)
Jae-In Lee	ES-1615(125)	Jaerock Kwon	ES-2103(130), EM-2255(138)
Jae-Jun Park	PE-2299(101), PE-2301(101)	Jaesang Lee	OS-1768(96)
Jae-Kwang Kim	ES-3339(126)	Jaesung Cha	FP-0460(26), FD-0455(43)
Jae-Ryong Lim	FD-3073(37)	Jaesung Song	FC-3917(117), FC-3920(121), FC-3930(121)
Jae-Seok Kim	ES-1924(129)	Jaewon Choi	
Jae-Seong Yeo	ES-1152(135)		
Jae-Shin Lee	FD-0220(29), FP-0720(19), FP-4010(19), FD-4051(29), FP-0584(26), FP-1034(26), FP-5006(21)		

Jaeyong Kim	FM-2791(82)	Jeong Do Yang	TF-1420(68)
Jaeyoung Kim	TF-3206(69)	Jeong Hee Choi	OS-4163(93)
Jai Youl Lee	TF-4041(71)	Jeong Ho Cho	FD-3300(30), FD-2939(30), EM-2919(138), TF-2990(78)
Jai-yeoul Lee	TF-0851(73), TF-1896(75)	Jeong Ho Park	FC-4496(124), FC-4500(124)
Jaichan Lee	KC-3093(150)	Jeong Ho Ryu	LT-2713(60), LT-0373(63), LT-0376(63), TF-2721(77)
James Lee	EM-3058(139)	Jeong Hoon Lee	FD-2452(36), NM-2461(48), OS-2464(90), FD-2423(42)
Jamil Ur Rahman	FP-2934(24), FP-1243(27)	Jeong Hun Kim	FD-1399(35)
Jana Zaumseil	FM-2929(80)	Jeong Hwa Min	FD-4245(35)
Jang Bo Shim	LT-2825(61)	Jeong Hwan Ahn	FD-1399(35)
Jang Yeon Kwon	OS-4512(97)	Jeong Hyun Park	PV-4387(104)
Jang Yeul Tak	NM-1430(53), NM-1512(53), NM-2008(54)	Jeong In Han	ES-2644(130), LT-2435(60), FM-2791(82), FM-3331(83)
Jang-Hee Yoon	OS-3244(92), OS-3248(92)	Jeong Jin Kim	PE-4014(102)
Jang-Joo Kim	FM-4392(79)	Jeong Kim	PV-3813(109)
Jang-Ung Park	EM-0987(145)	Jeong Min Baik	FD-3157(37), LT-3159(56), TF-3447(70)
Jaran Sritharathikhun	PV-4268(110), OS-0929(89)	Jeong Seog Kim	FP-4083(25)
Jariyanee Prasongkit	ES-1182(135)	Jeong Seon Choi	FM-3718(83), FM-3802(83)
Jaru Jutimoosik	FD-0302(31)	Jeong Soon Yim	PE-2406(98), PE-2711(99), PE-2656(101)
Jasbir Singh Hundal	FD-2821(29), FD-2924(30), FP-3897(22)	Jeong Yong Lee	ES-3104(131)
Jaseung Koo	FM-2686(82), PV-3088(107)	Jeong-Boon Koo	PV-1344(113)
Jasoon Jang	LT-3312(57)	Jeong-Do Yang	PV-1038(112)
Jaturon Kittisak	FD-3208(37)	Jeong-Hee Choi	ES-2903(126)
Jayapal Raja	PV-1392(113)	Jeong-Ho Cho	FP-2474(22)
Jayoon Koo	FD-3965(38), EM-3499(140), EM-3496(148), EM-3497(149)	Jeong-Hoon Kim	TF-3967(71)
Je-Hong Choi	OS-2874(91)	Jeong-Ik Lee	FM-0535(79)
Je-Min Kim	LT-1534(65)	Jeong-Joo Kim	FC-2826(119), FC-4046(121), OS-2672(91), OS-2814(91), FC-3849(123), OS-3850(93), OS-1406(95), PV-1617(114)
Jeehoon Kim	FC-0821(122)	Jeong-Won Kang	EM-3573(140), EM-3581(140)
Jeesoo Seck	PV-3397(108)	JeongSoo Hong	TF-2275(77)
Jeesoo Seok	PV-3400(108), PV-3402(108)	Jeongdae Seo	FD-3663(30)
Jeffrey De Vero	TF-3873(70)		
Jeffrey M. Pietryga	PV-4486(104)		
Jens Oluf Jensen	FC-3620(118), FC-0643(118)		
Jeom-Soo Kim	ES-3299(132), ES-3426(132)		
Jeon Wook Yang	PE-4014(102)		
Jeon-Boon Koo	PV-1323(113)		

Author Index

Jeonghee Kim	FC-1705(122)	Ji-Myon Lee	EM-4186(142), EM-4216(142)
Jeongho Lee	KC-3607(151)		LT-3870(62)
Jeongin Jang	OS-1314(95)	Ji-Na Choi	FM-0560(84)
Jeongmin Lee	EM-2081(147)	Ji-Sang Yu	ES-3434(132), ES-3442(132)
Jeongno Lee	LT-2435(60), OS-1937(96)	Ji-Su Kim	FC-2573(119), TF-2564(77)
Jerawut Kaewsaneer	FC-3670(117), OS-4302(87)	Ji-Sun Yun	FP-2474(22)
Jerry Kung	NM-3534(46), TF-3538(68)	Ji-Won Choi	ES-1808(129), FD-4073(38), ES-1487(136), FD-1498(39)
Jeseung Yoo	FM-2686(82)	Ji-Won Lee	EM-1559(146)
Jeum-Jong Kim	PV-1461(113)	Ji-Won Son	FC-1564(117), FC-1305(122), FC-1616(122), FC-1705(122), FC-2042(123)
Jeungwoo Lee	PV-0921(112)	Ji-Young Yoon	PE-2534(101), PE-2980(102)
Ji Cheon Lim	TF-0915(73)	Ji-hyun Kim	TF-3447(70)
Ji Eun Lee	NM-2984(49)	JiWon Choi	TF-4099(71)
Ji Eun Park	PV-3105(107)	Jia Ma	FC-0513(116)
Ji Ho Kim	EM-3822(141)	Jiadong Zang	FP-4083(25), FP-4454(22)
Ji Hoon Jang	PV-2976(106)	Jiagang Wu	FP-0626(26), FP-0629(26), FP-0637(26), FD-0625(43)
Ji Hun Park	ES-1604(125), EM-0744(145), EM-1396(146)	Jian Ma	FD-0635(43)
Ji Hye Kim	NM-3552(50), FD-0676(43)	Jian-Yang Lin	TF-2187(77)
Ji Sun Yun	FD-3300(30), FD-2939(30), TF-2990(78)	Jiang Yin	OS-3144(91), EM-2427(138)
Ji Won Choi	ES-2205(128)	Jiang-Yang Zhan	EM-3997(139)
Ji Ya Choi	FP-2938(24), FP-0832(26)	Jianggang Wu	FD-0630(43)
Ji Young Park	NM-3555(50), NM-3561(50)	Jianguo Chen	KC-1574(153)
Ji Yun Song	PV-1665(114)	Jianguo Zhu	FP-0626(26), FP-0629(26), FP-0637(26), FD-0630(43)
Ji-Beom Yoo	EM-2081(147)	Jianxin Lu	EM-2427(138)
Ji-Eun Baek	EM-1294(146), EM-1307(146), EM-1312(146)	Jieun Koo	OS-0734(89)
Ji-Eun Choi	FM-3767(83), FM-3795(81)	Jieun Lee	ES-1485(136)
Ji-Eun Lim	FC-2293(119), FC-3591(1200)	Jiho Chang	OS-0734(89), PV-0921(112)
Ji-Hee Pi	PV-0412(111)	Jihong Kim	EM-3497(149)
Ji-Ho Kim	FD-3829(38), FD-3995(38), EM-2415(147)	Jihoon Jeon	FD-1747(33), PV-1926(114)
Ji-Hoon Woo	LT-4217(62)	Jihoon Jung	EM-2010(147), TF-2019(76)
Ji-Hye Kim	NM-0355(51)	Jihoon Kim	FM-2524(86)
Ji-Hyun Yu	TF-2157(76), TF-2167(76)	Jihui Choi	FC-2293(119), FC-3591(1200)
Ji-Hyung Roh	PV-2388(106)	Jihwan Kim	LT-3368(61), OS-3384(92)
Ji-Koon Park	EM-4180(142), EM-4183(142),		

Jihwan Won	LT-1994(59)	Jin-Hyo Boo	TF-4414(72)
Jihyun Kim	NM-1451(45), FM-1742(80), FM-3687(80), EM-4210(139)	Jin-Hyuk Bae	OS-0757(94), FM-1550(85), FM-2420(86), FD-1136(44)
Jihyun Park	FD-3141(37)	Jin-Hyuk Kwon	FM-2420(86), FD-1136(44)
Jik-Soo Kim	ES-0902(134)	Jin-Kyu Kang	PV-0521(111), PV-0549(111), PV-1054(112)
Jikoon Park	EM-0574(144)	Jin-Sang Kim	PE-2578(98)
Jilin Wang	FC-0269(118)	Jin-Seok Lee	ES-1390(135), PV-2529(106), PV-2800(106), PV-0542(111)
Jimi Eom	FM-2624(86)	Jin-Seong Kim	NM-3860(51)
Jimin Kang	LT-1686(59)	Jin-Seong Park	FD-3135(37), OS-2111(97)
Jin Hong Choi	FP-4083(25)	Jin-Soo Kim	FP-0883(20)
Jin Hong Im	PE-4014(102)	Jin-Soo Park	ES-3743(132), FC-4124(123), FC-4175(123)
Jin Hong Kim	PV-3813(109)	Jin-Tae Kim	TF-0487(72)
Jin Hong Lee	KC-2925(150)	Jin-Woo Ju	OS-2400(90), OS-0326(94)
Jin I. Choe	EM-0689(144)	Jin-Woo Kim	PV-1143(112)
Jin Jeong	NM-0714(52)	Jin-Wook Shin	FM-0535(79), FM-1676(85)
Jin Kon Kim	TF-2721(77)	Jin-Woong Hong	PV-3061(107), TF-0848(73)
Jin Kyu Kang	FD-4051(29), FP-2631(20)	Jin-hong Li	FC-4264(121), FD-1030(31), LT-1238(58), LT-1260(58)
Jin Sang Kim	OS-1480(96), TF-1627(75)	Jin-ok Kim	FD-3379(38)
Jin Seob Kim	PV-3713(108)	Jin-seon Kim	OS-2105(97)
Jin Seok Lee	NM-0820(52)	JinJu Lee	TF-4099(71)
Jin Seon Lee	PV-4172(110)	JinSup Kim	PV-4000(109)
Jin Soo Kim	FP-1157(27)	JinUn An	PV-4000(109)
Jin Su Lee	TF-4414(72)	Jinbao Xu	FD-0414(43)
Jin Su Park	FP-1877(28)	Jineui Kim	ES-3960(133)
Jin Sup Kim	PV-4233(110)	Jing-Feng Li	FP-0493(20), FP-1907(21), KC-0309(151)
Jin Un An	PV-4233(110)	Jing-Jou Tang	FD-2107(41)
Jin Won Kim	FP-2938(24), FP-0832(26)	Jing-Shyang Horng	TF-3538(68)
Jin Woo Huh	FM-0535(79), FM-1676(85)	Jingshuai Yang	FC-3620(118)
Jin-A Jeong	OS-3084(88)	Jinhee Heo	PV-3010(106)
Jin-Heon Oh	FD-3829(38), FD-3995(38)	Jinho Ahn	EM-3111(148)
Jin-Ho Choi	FP-2344(23)	Jinho Joo	ES-0840(134), NM-1349(53), TF-2223(68), TF-1358(74)
Jin-Ho Kanga	TF-3447(70)		
Jin-Ho Kim	FM-2946(82), FM-2953(83)		
Jin-Ho Nam	EM-3836(141)		
Jin-Ho Yeo	EM-1002(145)		
Jin-Hoe Hur	LT-3159(56)		
Jin-Hoon Yang	TF-2564(77)		

182

Jong-Lam Lee	LT-3159(56), PV-3468(104)	Joo-Young Jeong	PE-1708(100), TF-1859(75)
Jong-Sun Yon	OS-1820(96), FM-2256(86)	Joo-Young Jung	PE-1951(101)
Jong-Sung Park	FC-3917(117), FC-3920(121), FC-3930(121)	Joo-Young Lee	EM-3153(148)
Jong-Wan Park	EM-0825(145)	Joo-Yul Lee	FC-2664(119), NM-3685(50)
Jong-Won Lee	ES-0785(126), FC-3102(117), ES-1080(135)	Jooho Moon	ES-3630(128)
Jong-Woo Kim	OS-4295(93), KC-2251(150), TF-4274(71), FD-2259(35), KC-1623(153), KC-1643(153), KC-3307(153)	Joohyun Hwang	FM-0535(79), FM-1676(85)
Jong-Woong Kim	FM-3331(83), FM-2624(86)	Joohyun Kim	EM-4442(143)
Jong-Yeol Shin	TF-0848(73)	Joon Ho Ahn	LT-0247(63)
Jong-Yong Lee	PV-3061(107)	Joon Seop Kwak	OS-2095(97), LT-3648(66)
JongSu Woo	PV-3309(108)	Joon Soo Kim	NM-0820(52)
Jonghee Han	FC-4195(121)	Joon-Hyung Jin	PV-2627(106)
Jonghee Lee	FM-0535(79), FM-1676(85)	Joon-Hyung Lee	FC-2826(119), FC-4046(121), OS-2672(91), OS-2814(91), FC-3849(123), OS-3850(93)
Jonghyun Lee	PV-4241(110), PV-4256(110)	Joon-Soo Kim	ES-1390(135), PV-2529(106), PV-2800(106), PV-0542(111), PV-1323(113), PV-1344(113)
Jonghyun Song	TF-3206(69), TF-3873(70)	Joon-Tae Song	FC-3587(120), FC-3604(120), EM-3520(140)
Jonghyun Yoo	LT-2051(60)	Joong Hee Nam	FD-3300(30), FD-2939(30)
Jongjin Jang	LT-2071(56), LT-2533(60), PV-4206(110), TF-2100(76), TF-2449(77)	Joong Kee Lee	ES-1604(125), ES-0788(127), ES-1485(136), EM-0744(145), EM-1396(146)
Jongkyu Park	FD-3315(37)	Joong Kon Son	LT-3531(61)
Jongmyung Cha	FM-2524(86)	Joong Kook Hwang	EM-3512(140)
Jongsub Lee	PE-2406(98), PE-2711(99)	Joong Tark Han	NM-2384(47)
Jongsung Kim	OS-3363(92)	Joong Yeon Cho	OS-3321(92)
Jongwan Park	OS-0230(94)	Joong-Hee Nam	FP-2474(22), TF-2990(78)
Jongwoon Park	LT-0313(63)	Joong-Kee Lee	ES-1678(129), ES-1165(135), ES-1170(135)
Joo Hei Jung	NM-3555(50)	Joongkyu Kim	PV-2955(115)
Joo Jin	TF-0468(72)	Joongpyo Shim	ES-3279(132), PV-3080(107), PV-2911(115)
Joo Sin Lee	LT-4229(63)	Joongwon Kim	OS-2958(91), TF-3006(78)
Joo Sung Jin	ES-1988(129)	Joonho Bae	ES-3279(132)
Joo Y. Lee	EM-0697(144), EM-0702(145)	Joonyeo Seo	FC-0516(118)
Joo Yeon Kim	EM-4438(143)	Joonmo Park	TF-3447(70)
Joo Yong Jeong	TF-3180(69), TF-1920(76)		
Joo Yul Lee	FM-2802(82), TF-3228(70)		

Author Index

- | | | | |
|----------------|---|----------------|---|
| Joonsik Lee | EM-3719(140) | Jumi Kim | PV-1461(113) |
| Joontae Song | PV-2911(115), PV-2955(115) | Jun Akedo | FD-3590(31) |
| Joontaek Jung | FD-2028(31) | Jun Beom Park | LT-3762(61) |
| Joontek Jung | FD-4207(38) | Jun Du | KC-0349(152) |
| Joosun Kim | ES-3630(128) | Jun Hong Noh | PV-3439(104), PV-3599(108),
PV-3855(109) |
| Jou-Hyeon Ahn | ES-3339(126), ES-2440(130),
ES-2460(130) | Jun Hyeock Lee | FM-2737(82) |
| Joung Hee Kim | TF-3180(69), TF-1920(76) | Jun Hyuk Choi | NM-1349(53), TF-2223(68),
TF-1358(74) |
| Joung Jin Gwan | OS-1480(96) | Jun Hyun Han | FD-2452(36) |
| Ju Hyeon Lee | NM-0355(51) | Jun Hyung Lim | NM-1349(53), TF-2223(68),
TF-1358(74) |
| Ju Hyuck Lee | FD-1250(39) | Jun Takeya | FM-4556(80) |
| Ju Hyun Yoo | FP-2683(23), FP-2702(24) | Jun Young Choi | OS-1636(96) |
| Ju Mi Kim | PV-2383(115) | Jun Young Han | PV-1649(114) |
| Ju Na Hwang | EM-3822(141) | Jun Young Kim | PV-1665(114) |
| Ju Seung Lee | EM-3461(148) | Jun Young Kwon | TF-3147(69) |
| Ju Young Kim | FD-4245(35) | Jun-Bo Deng | EM-3997(139) |
| Ju-Eun Kang | KC-3307(153) | Jun-Han Han | FM-1676(85) |
| Ju-Hoon Park | TF-0487(72) | Jun-Hyung Sim | PV-0521(111), PV-0549(111),
PV-1054(112) |
| Ju-Hyeon Lee | FD-0676(43) | Jun-Hyuk Choi | LT-4217(62) |
| Ju-Hyeon Shin | OS-2874(91), OS-3321(92) | Jun-Hyuk Kwak | FD-0859(34), FD-1638(40) |
| Ju-Hyuck Lee | FD-1395(39), FD-1641(40) | Jun-Hyung Lee | FC-2765(119) |
| Ju-Hyung Ha | LT-1779(59), LT-1786(59) | Jun-Seok Ha | LT-0619(55) |
| Ju-Na Hwang | EM-3745(140), EM-2415(147) | Jun-Soo Jeon | PE-2448(101) |
| Ju-Ok Seo | LT-4378(63) | Jun-Wan Kwon | PE-2775(102) |
| Ju-Yeon Kim | OS-1064(95) | Jun-Yong Bak | OS-2277(90), OS-2282(90),
OS-1817(88) |
| Ju-Young Jin | EM-4409(143) | Jun-kyu Lee | PV-2529(106) |
| Ju-Young Jung | LT-1230(65) | JunYoung Choi | OS-1297(95) |
| Ju-Yul Lee | EM-3896(141) | June Ho Song | ES-3426(132) |
| Ju-han Lee | LT-2773(61) | June Key Lee | OS-2243(90) |
| JuHyun Yoo | FP-2717(24), FP-2719(24) | Jung Ah Lim | ES-3528(132) |
| Juan Wang | LT-1786(59) | Jung Hoon Park | ES-2644(130), FC-1305(122),
NM-2732(48), NM-2754(49) |
| Jubong Lee | ES-2097(125) | Jung Hoon Song | PV-2976(106) |
| Jueon Lee | ES-4260(133) | | |
| Juhwan Kim | FM-4404(84) | | |
| Juhyeong Jo | FP-0460(26), FD-0455(43) | | |
| Jui-Ming Hsu | TF-3538(68) | | |
| Julia Glaum | FP-3097(24) | | |

Jung Hoon Yu	TF-4414(72)	Jung-hun Kim	FM-3421(83)
Jung Hwan Ahn	FD-1342(32)	Jung-wook Shin	OS-2105(97)
Jung Inn Sohn	EM-3054(148)	JungHoon Song	PV-3341(108)
Jung Joon Yoo	ES-3412(125)	JungWoo Ok	EM-4325(142)
Jung Min Lee	EM-3889(141)	JungWook Shin	FM-0442(84), FD-2288(42), EM-0574(144)
Jung Mo Gu	TF-2075(67), EM-2607(138), TF-2039(76)	Jungbok Lee	LT-0247(63)
Jung Rag Yoon	ES-2602(130), ES-0243(133), FP-0282(25)	Junggwon Yun	TF-3900(70)
Jung Sub Kim	ES-0788(127)	Jungheum Yun	FM-1335(79), NM-1654(53)
Jung Wook Lim	PV-3846(115)	Jungho Ryu	ES-2650(131), FD-2028(31), KC-2251(150), FD-3903(33), KC-3607(151), FD-2259(35), KC-1623(153), KC-1643(153), FD-2639(44), KC-3307(153)
Jung-A Lee	FC-2826(119), OS-2814(91), OS-3850(93), OS-1406(95), PV-1617(114)	Jungkeun Lee	ES-2602(130), ES-2650(131), FD-2639(44)
Jung-Cheol Lee	FC-3587(120)	Jungmin Choi	FM-4423(79)
Jung-Dae Kwon	OS-2111(97)	Jungmin Lee	ES-1457(128)
Jung-Eui Hong	ES-2508(130)	Jungmo Kim	PV-1392(113)
Jung-Gon Kim	LT-1786(59)	Jungsoo Kim	NM-2733(48), NM-0464(52), NM-0482(52)
Jung-Hee Choi	ES-2858(131)	Jungsu Han	OS-1768(96)
Jung-Hee Lee	PE-2881(98), OS-3384(92)	Jungyoon Kim	TF-3173(69)
Jung-Ho Lee	PE-2778(102)	Junhee Jung	PV-4173(110), PV-1573(113), TF-1502(74)
Jung-Ho Park	EM-1761(137), FD-1695(40)	Junhee Kang	ES-3077(131)
Jung-Hoon Lee	PE-2448(101)	Junho Choi	EM-2542(147)
Jung-Hoon Park	OS-2182(97), TF-0979(73)	Junhyuk Kim	FC-0452(118)
Jung-Hoon Song	ES-1988(129), TF-2960(67)	Junhyuk Park	LT-3353(55), LT-3517(61)
Jung-Hun Lee	EM-2081(147)	Junkao Liu	FD-0251(42), FD-0256(42), FD-0295(42)
Jung-Hwan Hyung	TF-1859(75)	Junli Yin	ES-2899(127), NM-2770(49)
Jung-Hyuk Koh	PE-1328(100), FM-1507(85), TF-1333(74), EM-1559(146), TF-2034(76)	Junman Lee	FD-4207(38)
Jung-Il Lee	LT-0373(63), LT-0376(63)	Junsin Yi	PV-3697(104), PV-4173(110), PV-1340(113), PV-1392(113), PV-1573(113), PV-1586(114), PV-2911(115), TF-1502(74)
Jung-Sik Kim	TF-3834(70)		
Jung-Won Park	ES-0274(134)		
Jung-Woo Park	ES-3299(132)		
Jung-WooK Park	FD-1726(40)		
Jung-Yeon Lee	PE-0745(100), PE-0843(100)		
Jung-Yong Lee	PV-4424(104)		

Author Index

Junsu Lee ES-1929(129)
 Junwoo Lee FD-2452(36), FD-2423(42)
 Juras Banys FP-2695(23), OS-2869(91)
 Juyeon Yun FC-0465(121)
 Juyoung Ham PV-3468(104)
 Jwayeon Kim OS-1768(96)
 Jürgen Köhler KC-2835(150)
 Jürgen Roedel FP-4083(25)
 Jürgen Rödel FD-2610(20), FP-0493(20),
 FP-2369(23), FP-0235(21),
 FP-1907(21), FP-4454(22),
 FP-0237(25), FP-1157(27)

K

K. B. R. Varma FD-3952(32)
 K. Chandramani Singh FD-0926(29)
 K. H. Chen LT-0993(64)
 K. H. Lee PE-1037(98)
 K. K. Im TF-2322(69), NM-2327(54)
 K. Moschovis OS-1697(96)
 K. Tsagaraki OS-1697(96)
 K.B.R Varma FD-3955(29)
 Ka Yeon Ryu PV-3397(108), PV-3400(108)
 Ka-Hyun Kim PV-0562(111)
 Kab Soo Lee FP-2683(23), FP-2702(24)
 Kachaporn Sanjoom FD-1916(41)
 Kadirvelayutham Prasanna ES-1444(127)
 Kai-Huang Chen FD-2107(41), FD-2125(41),
 FD-2142(41), FD-2217(41),
 FD-2218(42), TF-2187(77),
 EM-2209(147), EM-2212(147)
 Kamonpan Pengpat FD-1562(40)
 Kamran Eshraghian EM-2895(138), EM-3823(141)
 Kandasamy Prabakar NM-3344(46), PV-0797(112),
 PV-0807(112), PV-0918(112)
 Kang Bok Ko EM-2511(138)
 Kang Soo Lee ES-2783(131)

Kang Won Lee EM-3980(141)
 Kang-II Ahn LT-2885(57)
 Kannan Karunakaran EM-1448(137), NM-1438(47)
 Kannappan Santhakumar PV-0613(105)
 Kareen Lopez ES-3279(132)
 Karlis Bormanis FP-2695(23)
 Katsuya Inaba FP-1201(27)
 Kazuhiro Nakanishi FD-2620(36), FD-2339(42)
 Kazunori Koga NM-0609(46)
 Kazuo Uzuka FD-1365(30)
 Kazuya Tabuchi FP-1103(19)
 Ke Wang FP-0493(20), FP-1907(21),
 LT-3466(55)
 Kee Bong Choi FD-2636(36)
 Kee Hoon Kim KC-2251(150), KC-5005(150),
 KC-3607(151)
 Kee Joe Lim EM-3822(141)
 Kee Joo Chang OS-0336(88)
 Kee Young Lim PE-1439(100)
 Kee-Jeong Yang FM-0284(84), PV-0521(111),
 PV-0549(111), PV-1054(112),
 TF-0283(72)
 Kee-Joe Lim FD-3829(38), FD-3995(38),
 EM-3745(140), EM-3836(141),
 EM-2415(147)
 Kee-Sun Lee EM-1447(146), TF-1756(75)
 KeeJoe Lim EM-3753(141)
 Keehong Um PE-0363(100), ES-0389(128),
 LT-0360(63)
 Ken Nishida FP-2086(20), FD-0790(33)
 Kenichi Maruyama FM-2996(83)
 Kenji Uchino FD-3521(32)
 Kentaro Furusawa LT-3356(55)
 Kentaro Onabe NM-4144(51)
 Kento Kariya FD-2757(32)
 Keon Woo Kim EM-3825(139)
 Keun Ho Lee TF-4041(71)

Keun Man Song	LT-3870(62)	Ko Yeon Choo	ES-4433(133)
Keun Young Lee	FD-3157(37), FD-1250(39), FD-1300(39), FD-1528(40), FD-1633(40), FD-1641(40), FD-1715(40)	Kobsak Sriprapha	PV-4268(110)
Keunjo Kim	ES-2076(130), ES-2103(130), EM-2255(138), PV-0383(111), PV-2247(115)	Koichi Nakashima	NM-1991(47)
Keunsoo Lee	FM-1676(85)	Koide Syouhei	FC-3994(116)
Kevin J. Chen	PE-3705(98)	Kok-Geng Lim	FP-1071(21)
Khairunisak Abdul Razak	PV-0445(103), OS-0614(87)	Konstantinos Rogdakis	KC-3093(150)
Khian-Hooi Chew	FP-1071(21)	Kosuke Hara	PV-0921(112)
Ki Chang Kwon	PV-3796(109), FM-3801(83)	Kotaro Sasaki	FC-1047(116)
Ki Hwan Kim	OS-1406(95), PV-1617(114)	Kouichi Nakashima	FP-1829(22), FP-1201(27), FP-1435(27)
Ki Hyeon Kim	EM-3719(140)	Kouji Hazu	LT-3356(55)
Ki Jae Kim	ES-1440(126), ES-3001(131), ES-3434(132), ES-1444(127)	Krishnakumar Varadharajan	NM-4429(46)
Ki Min Kim	PE-2711(99)	Kuan-Chang Chang	EM-2209(147), EM-2212(147)
Ki Ryoung Lee	OS-1150(95)	Kuan-Ting Lin	NM-3534(46)
Ki-Bok Kim	FP-0312(25), FD-1878(41)	Kuang Sheng	PE-4482(98), PE-3223(98)
Ki-Chan Lee	FM-2946(82)	Kug Sun Hong	NM-3213(49)
Ki-Hong Kim	OS-3384(92)	Kuk-Hee Han	NM-1381(53)
Ki-Hwan Hwang	TF-4414(72)	Kukjin Hwang	FC-2588(119)
Ki-Hyun Jang	TF-0979(73)	Kun-A Lee	EM-1294(146), EM-1307(146), EM-1312(146)
Ki-Ryoung Song	LT-2175(57)	Kuo-Lin Huang	FC-3913(120)
Ki-Seong Lee	FC-3240(120), FC-3241(120), PV-3232(107), PV-3236(107)	Kurian A. Kuttiyiel	FC-1047(116)
Kie Young Woo	LT-1078(65), LT-1086(65)	Kwan-Hun Lee	LT-1534(65)
Kil-ho Jung	LT-3368(61)	Kwan-Jun Heo	EM-3823(141)
Kiseok Kim	ES-2076(130), ES-2103(130), EM-2255(138), PV-2247(115)	Kwan-Su Kim	OS-2182(97)
Kisoo Kim	TF-3688(70)	Kwang Chul Roh	ES-1537(126)
Kisuk Kang	ES-1537(126), ES-3608(126)	Kwang Ho Bae	NM-1425(53), NM-1430(53), NM-2008(54)
Kiyeol Kwak	FM-3898(84)	Kwang Joo Kim	FP-1834(27)
Kiyong Ahn	FC-1564(117)	Kwang Seok Jeong	PV-3713(108), PV-4233(110)
Kiyeon Kim	ES-1808(129), ES-1487(136)	Kwang Soo Yoo	OS-1480(96)
Kiyoul Kim	ES-1615(125)	Kwang Soon Ahn	NM-3552(50), NM-3559(50)
		Kwang Yeon Cho	FC-4496(124), FC-4500(124)
		Kwang-Bum Kim	ES-1537(126)
		Kwang-Cheol Ko	EM-1294(146), EM-1307(146), EM-1312(146)
		Kwang-Cheol Lee	LT-1026(65)

Author Index

- | | | | |
|------------------|---|------------------|--|
| Kwang-Ho Jung | FM-3489(79), FM-1845(86) | Kyoung Won Cho | LT-0373(63), LT-0376(63) |
| Kwang-Ho Kim | FD-4065(38), TF-3688(70),
EM-3695(140) | Kyoung-Hee Shin | ES-0945(134) |
| Kwang-Il Choi | NM-3074(49), NM-3185(49),
OS-3310(92), OS-3371(92),
TF-3147(69) | Kyoung-Jin Lee | NM-2509(48) |
| Kwang-Min Kim | NM-3376(50) | Kyoung-Kook Kim | LT-2151(60), LT-2176(60) |
| Kwang-Seok Kim | FM-3489(79), FM-1845(86) | Kyoungah Cho | FM-3898(84), TF-3900(70),
TF-3979(71) |
| Kwang-Seok Seo | PE-0843(100) | Kyoungjun Lee | ES-3426(132) |
| Kwang-Soo Kim | OS-1453(95), OS-1764(96) | Kyoungrok Cho | EM-2895(138), EM-3823(141) |
| Kwang-Soon Ahn | PV-1773(114), PV-2220(115) | Kyoungtae Eun | FM-2913(82) |
| Kwang-Sun Ryu | ES-2508(130) | Kyu Hwan Lee | FM-2802(82), PV-3242(107),
TF-3228(70) |
| Kwang-Taek Hwang | FM-2946(82) | Kyu Hwan Shim | PE-1439(100) |
| Kwang-Won Cho | OS-2182(97), TF-0979(73) | Kyu Jeong Song | TF-0915(73) |
| KwangSeok Jeong | PV-4000(109) | Kyu Seomoon | FP-3660(28), TF-3688(70),
EM-3695(140) |
| Kwangho Kim | FP-3660(28) | Kyu-Hwan Shim | PE-1708(100), PE-1951(101),
LT-1230(65), TF-3180(69),
TF-1496(74), TF-1523(75),
TF-1859(75), TF-1920(76),
TF-2157(76), TF-2167(76) |
| Kwangsoo Kim | PV-0958(112) | Kyu-Nam Jung | ES-0785(126), ES-1080(135) |
| Kwangsoo No | FD-1891(41) | Kyu-Seog Hwang | TF-0487(72) |
| Kwanhoon Lee | LT-0813(64) | Kyu-Sung Han | FM-2946(82), FM-2953(83) |
| Kwon-Ho Kim | FD-1528(40) | KyuMann Lee | TF-0290(72) |
| Kwon-Hyeon Kim | FM-4392(79) | Kyuha Lee | EM-0744(145), EM-1396(146) |
| Kwon-Bum Chung | OS-2111(97) | Kyung Cheol Choi | FM-2405(79) |
| Kyeong Heon Kim | LT-3944(62), LT-1078(65) | Kyung Hee Park | NM-2583(48), NM-2691(48) |
| Kyeong Min Yu | OS-1016(95), OS-1064(95) | Kyung Ho Cho | FP-1803(27), FP-1834(27) |
| Kyeong Nam Kim | FD-3157(37) | Kyung Hwan Kim | PV-4053(109), PV-4071(109),
PV-4172(110), PV-4198(110),
PV-4160(105) |
| Kyeong-Ah Kim | OS-2282(90) | Kyung Hyun Kim | OS-2240(97) |
| Kyeong-Seob Kwon | OS-2400(90) | Kyung Jin Kim | PV-3400(108), PV-3402(108) |
| Kyeonghyeon Ko | EM-4442(143) | Kyung Joong Yoon | FC-1564(117), FC-1305(122),
FC-1616(122), FC-1705(122),
FC-1837(122), FC-2042(123) |
| Kyeongsoon Park | OS-1768(96) | Kyung Soo Suh | EM-4438(143) |
| Kyo Seon Hwang | FD-2545(36), FD-2902(36),
FD-3316(37), OS-2464(90) | | |
| Kyong Heon Kim | LT-0817(64), LT-1086(65) | | |
| Kyongjun Yoo | KC-3607(151) | | |
| Kyoung Jin Choi | OS-2296(88) | | |
| Kyoung Soon Choi | NM-3757(51), PV-3796(109),
LT-3807(62) | | |
| Kyoung Su Lee | PV-4220(110) | | |

- | | | | |
|------------------|---|-----------------------|---|
| Kyung Wha Lee | TF-0915(73) | Lei Zhao | FP-4498(25), FP-0489(20) |
| Kyung Wook Jang | NM-1425(53) | Lerdkead Naka-in | OS-0836(94) |
| Kyung Yoon Chung | ES-3104(131) | Li Li | ES-0706(126) |
| Kyung-Hee Park | NM-2582(48) | Li Zhang | FD-0910(30) |
| Kyung-Hee Shin | ES-0785(126), ES-3739(132),
ES-3743(132), ES-1080(135) | Li-Feng Zhu | FP-4498(25), FP-0489(20) |
| Kyung-Hun Kim | PE-2534(101) | Li-Qian Cheng | FP-0493(20) |
| Kyung-Hyun Kim | OS-2468(90), OS-2473(90),
OS-1820(96), FM-2256(86) | Lin Chen | NM-0917(45) |
| Kyung-Ju Lee | PV-2388(106) | Lin Xie | PV-3400(108), PV-3402(108) |
| Kyung-Mo Yeon | OS-2661(90) | Liwen Sang | LT-3582(56) |
| Kyung-Rok Choi | TF-1712(69) | Lixin Yuan | PE-0755(100) |
| Kyung-Sik Shin | FD-1250(39), FD-1289(39) | Ljubomira Ana Schmitt | FP-0235(21), FP-0237(25) |
| Kyung-Su Lee | OS-1764(96) | Long Jianyou | NM-3413(47) |
| Kyung-Won Lee | NM-1381(53) | Longtu Li | FD-0910(30) |
| Kyung-min Oh | OS-2105(97) | Louis Scudiero | FC-0369(116) |
| KyungHwan Kim | TF-2275(77) | Loyd Ah Qune | KC-3093(150) |
| Kyunggho Kim | PV-3105(107) | Luigi Salamandra | NM-4036(46) |
| Kyungjae Lee | LT-2051(60), LT-2201(60) | Lunyong Zhang | OS-2377(89) |
| Kyungjun Song | FD-1638(40) | | |
| Kyungkon Kim | PV-3397(108), PV-3400(108),
PV-3402(108) | M | |
| Kyungmin Lee | OS-1492(96) | M S Kim | FD-0779(33) |
| Kyungmin Oh | EM-0574(144) | M. Siva Pratap Reddy | LT-3368(61), OS-3384(92) |
| Kyungnam Kim | LT-4042(62) | M. W. Kim | TF-2322(69), NM-2327(54) |
| Kyungsu Yun | LT-2885(57) | MA Hongzhong | PE-1232(99) |
| Kyungwhan Yang | TF-3979(71) | MK Kim | FP-0282(25) |
| Kyuseong Lee | TF-2100(76) | Ma R. Kim | EM-0700(144) |
| Kyuseung Lee | LT-2071(56), PV-4206(110) | Madsakorn Towannang | PV-3199(107) |
| | | Maengsuk Kim | OS-4405(89) |
| L | | Makoto Moriya | FD-0416(30) |
| Lakbhir Singh | FD-2924(30) | Maksim Ivanov | OS-2869(91) |
| Lars N Cleemann | FC-0643(118) | Man Ho Jo | FD-4107(38) |
| Lars N. Cleemann | FC-3620(118) | Man Kim | EM-3896(141), EM-0697(144),
EM-0702(145) |
| Le Quoc Bao | NM-3561(50) | Man-Jong Lee | PV-3105(107) |
| Lee Jin Ghil | FC-2700(119) | Man-Soon Yoon | FP-3045(19) |
| Lee-Woon Jang | OS-2400(90) | Man-Su Choi | ES-0927(134) |
| | | Manh Cuong Nguyen | FM-1609(80) |
| | | Manhyung Han | LT-1437(65) |

Author Index

Manoj Gupta	FD-1632(40)	Mi-Young Park	FC-0698(122)
Manolis Gagaoudakis	OS-0967(94)	Michael Scherrer	FP-0237(25)
Manolis Koudoumas	OS-0967(94)	Michael Sherrer	FP-0235(21)
Mansoo Choi	ES-0897(134), ES-0902(134)	Migaku Takahashi	TF-2295(67)
Manuel Hinterstein	FP-2354(19)	Mijung Lee	FM-2737(82)
Mara Bruzzi	NM-3431(46), NM-2760(47)	Min Gu Kang	PV-3726(108), PV-3730(109)
Maria A. Loi	FM-4453(80)	Min Gyu Kang	FD-1404(39)
Mario Caironi	FM-4457(80)	Min Han	EM-2511(138)
Mark Hoffman	FP-3097(24)	Min Hong Kim	PV-4198(110)
Martin Halim	ES-0788(127)	Min Jae Ko	PV-3444(103), PV-3397(108)
Martin Otto	NM-4036(46)	Min Ji Hwang	NM-2852(54)
Martina Dianetti	NM-4036(46)	Min Ji Im	PV-4387(104)
Maryane Putri	OS-1406(95), PV-1617(114)	Min Jong Song	LT-1731(59)
Masafumi Kobune	FP-2012(23)	Min Joo Park	OS-2095(97), LT-3648(66)
Masaharu Shiratani	NM-0609(46)	Min Ki Choi	OS-4140(93)
Masahiro Satano	FM-2560(79)	Min Ki Jun	FC-0698(122)
Masaki Imakawa	FM-2996(83)	Min Ki Ryu	TF-4274(71)
Masanori Okuyama	FP-2012(23)	Min Kyung Cho	FC-4195(121), FC-4213(121)
Masanori Tashiro	LT-3356(55)	Min Sik Woo	FD-1342(32), FD-1653(40)
Masaru Shimizu	FP-2012(23)	Min Suk Oh	FM-3687(80), LT-2435(60), OS-1937(96)
Masatomo Sumiya	LT-3582(56)	Min Woo Park	OS-4140(93), LT-4229(63)
Matias Acosta	FP-2369(23), FP-0235(21), FP-0237(25), FP-1157(27)	Min Xiao	FD-0625(43)
Max Migliorato	LT-3525(55)	Min Yang	FM-2913(82)
Md. Awlad Hossain	FC-1867(123)	Min Yen Yeh	PV-4164(104)
Md. Faruk Hossain	FC-2727(116), NM-2770(49)	Min-Ah Park	PV-1773(114)
Meeryoung Cho	LT-3053(57)	Min-Geun Choi	ES-2602(130), ES-2650(131), FD-2639(44)
Meng Li	TF-4137(71)	Min-Gi Kwak	FM-2624(86)
Meng-Lung Huang	NM-2784(45)	Min-Gyu Kang	FD-1389(31), TF-1384(74)
Methee Promsawat	FP-2912(19)	Min-Hea Park	FD-3995(38)
Mi Hye Yi	FM-1555(85), FM-1581(85)	Min-Ho Park	FD-1517(40)
Mi Jung Lee	FM-2768(82)	Min-Hoi Kim	FM-2420(86), FD-1136(44)
Mi-Ri Joung	NM-3860(51)	Min-Hye Park	FD-3829(38)
Mi-Seon Park	LT-1779(59)	Min-Kang Seo	FC-3036(120)
Mi-So Kim	ES-2460(130)	Min-Kyu Son	NM-0609(46), PV-0807(112), PV-0918(112), NM-0933(52)
Mi-Soon Lee	ES-3739(132)		
Mi-Young Kim	FC-4046(121)		

Min-Seok Choi	TF-3271(70)	Mohammad Firdous Hairy	FD-0341(32)
Min-Seok Kang	PE-2775(102), PE-2778(102)	Mohammad Hasan Abbasi	FD-0220(29)
Min-Sheob Shim	LT-3312(57)	Mohammad Reza Bafandeh	FD-0220(29)
Min-Sik Park	ES-3001(131), ES-3434(132)	Monica Scaringella	NM-3431(46)
Min-Soo Kim	FP-0426(25), FP-0460(26), FP-0485(26), FD-0455(43)	Moo Whan Shin	PE-3748(102)
Min-Sun Kim	FM-3331(83)	Moo Yeol Bae	OS-4072(93)
Min-Woo Ji	PV-2388(106)	Moo-Jung Chu	PV-1461(113)
Min-Wook Pin	TF-1770(75)	Moo-Seok Lee	FC-4124(123)
Min-Young Cho	ES-1537(126)	Moon Ki Jung	EM-3266(148)
Minbum Kim	PV-4173(110)	Moon-Hee Han	PV-1323(113)
Minchan Jeong	ES-0897(134)	Moon-Sun Kim	TF-0318(72)
Ming-Chang Kuan	FD-2107(41), FD-2125(41), FD-2142(41)	Moon-Sung Kang	FC-4175(123)
Minglei Fan	TF-2168(76)	Moonsoo Seo	PV-2955(115)
Mingyu Chen	ES-2740(136)	Mu Hee Choi	OS-0410(94)
Minho Choi	EM-3111(148)	Mu Seok Go	FM-2768(82)
Minho Kim	TF-2090(76), TF-2449(77)	Mu-Hsiang Hsu	FC-3910(117)
Minho Lee	FC-0821(122)	Muangjai Unruan	FD-0302(31)
Minho Seo	FC-0516(118)	Muhammad Rashid	EM-1671(146)
Minhwan Jeon	LT-2051(60), LT-2201(60)	Muhammad Usman Aslam	NM-4523(46)
Minhyon Jeon	NM-2733(48)	Muhammad Zubair Khan	NM-4523(46)
Minku Lee	FC-3240(120)	Mun-Cheol Choi	FD-3829(38)
Minkwan Koh	FM-3489(79)	Mun-Seok Chae	PV-3904(109)
Minkyu Ju	PV-3697(104), PV-1392(113)	Mun-Sik Shin	FC-4124(123), FC-4175(123)
Minseok Song	NM-1425(53), NM-1430(53), NM-2008(54)	Munsik Oh	LT-0750(64), OS-1196(95), LT-1281(65)
Minsuk Kim	EM-1126(145)	Musarrat Hasan	FM-1609(80)
Minwoo Cheon	PE-1376(100), EM-1364(146), TF-1388(74)	Muthuraman Govindan	EM-1448(137), NM-1438(47)
Minwook Oh	FD-2809(36), NM-0879(52)	Myang Hwan Lee	FP-1157(27), FP-1877(28)
Miso Kim	FD-1878(41), FD-1946(34)	Myanghwan Lee	FP-1815(27), FP-1934(28)
Misung Kim	PV-3242(107)	Myeong-Gyun Kang	PE-2448(101)
Mitsumasa Iwamoto	EM-3064(137)	Myeong-Ji Dong	OS-2400(90)
Miyoung Yoon	FC-2588(119)	Myeong-Soo Jeong	PV-0797(112), PV-0807(112), PV-0918(112), NM-0933(52)
Mogi Hiroshi	FC-3994(116)	Myeonghun U	OS-2649(88)
Mohammad A. Zubair	FP-4127(22)	Myeongil Choi	EM-0327(144)
		Myeongwon Lee	EM-1127(145)
		Myong Ho Kim	FP-2934(24), FP-1157(27),

Author Index

	FP-1243(27)	Nam Han	EM-2511(138)
Myong-Ho Kim	FP-0883(20), FP-1815(27), FP-1877(28), FP-1934(28)	Nam Hwang	OS-2243(90)
MyongHo Kim	FD-1443(39)	Nam Jin Jeon	NM-2691(48)
Myoung Han Yoo	PV-4346(111)	Nam Joong Jeon	PV-3599(108)
Myoung Pyo Chun	EM-3889(141)	Nam Ki Min	PV-2627(106), EM-4550(143)
Myoung Sub Noh	FD-1404(39)	Nam Sung Cho	FM-0535(79), FM-1676(85)
Myoung Youp Song	ES-1619(136), ES-1666(136)	Nam-Gyu Park	PV-4522(103)
Myoung-sung Moon	LT-4217(62)	Nam-Hoon Kim	PV-4346(111), PV-4351(111)
Myung Hwa Kim	PV-3397(108)	Nam-Kyu Park	PV-4118(110), EM-4102(142)
Myung Jae Seo	NM-2754(49)	Nam-Young Kim	FD-2666(36), LT-3188(55)
Myung Pyo Chun	EM-4007(141)	Namkyoung Choi	FD-1878(41)
Myung Sang Kim	NM-3628(50)	Naratip Vittayakorn	OS-0929(89)
Myung-Geun Jung	FC-0698(122)	Narumon Lertcumfu	FP-3976(25)
Myung-Hyun Lee	PE-2534(101), PE-2980(102)	Nathaporn Promros	TF-1522(74)
Myung-Sic Chae	FD-2545(36), FD-2902(36)	Natkrita Prasetsopha	NM-2193(45)
Myung-Soo Han	NM-3628(50), TF-4286(72)	Nattamon Koonsaeng	FC-3968(117), FC-3949(117)
Myung-kwan Song	FM-1335(79)	Nattaphong Boriraksantikul	PV-4268(110)
MyungSub Noh	FD-1389(31)	Nattaporn Tonanon	NM-0461(52)
Myunghee Jung	OS-1016(95)	Navadol Laosiripojana	FC-3968(117)
Myungjun Kim	ES-2097(125)	Navneet Dabra	FD-2821(29), FD-2924(30)
N		Neamul H Khansur	FP-2369(23)
N. Nambi Krishnan	FC-0401(121)	Neelam Maikhuri	KC-3211(153)
Na Lee Kim	FD-0828(44)	Neeraj Kumar	FP-3897(22)
Na-Hyun Kwon	OS-3244(92)	Ngo Dinh Sang	TF-2356(77)
Na-Ri Yeom	NM-3635(50)	Nguyen Huu Hong	PE-3857(102)
Na-lee Kim	FD-1517(40)	Nguyen Thi Hai	NM-3545(50)
NaLee Kim	FD-1443(39)	Niels J Bjerrum	FC-0643(118)
Nae-Man Park	OS-2468(90), OS-2473(90), OS-1820(96), OS-2240(97), FM-2256(86)	Niels J. Bjerrum	FC-3620(118)
Nagarajan Balaji	PV-1392(113)	Nikos Katsarakis	OS-0967(94)
Naho Itagaki	NM-0609(46)	Ning Tang	PE-2846(102)
Naiben Ming	KC-1263(151)	Nirod Akarapanjavit	PV-4268(110)
Nak-Jung Choi	LT-2151(60), LT-2172(58)	Nishioka Yasuhiro	FC-3994(116)
NakWon Jang	OS-0809(94)	Nithinai Wongittharom	ES-2538(126)
		Nobuhiro Kumada	FP-1829(22)
		Nobuhiro Matsushita	TF-2275(77)
		Norifumi Fujimura	FD-0569(32), OS-4319(93), FD-2757(32)

Noritaka Usami	PV-0921(112)	Peng Yong	FD-2950(37)
Nosang Myung	TF-3533(68)	Peng-Fei Zhou	FP-4498(25)
Nosang V. Myung	NM-4356(45)	PengFei Zhou	FP-0489(20)
O			
O-Bong Yang	OS-3310(92)	Per Jacobsson	ES-3339(126)
Ockseon Jang	EM-1364(146)	Per-Olof Holtz	NM-4144(51)
Oh Sang Kwon	OS-4295(93), TF-4274(71)	Pere Roca I Cabarrocas	PV-0562(111)
Oh-Young Lee	TF-1173(74)	Peter Bornmann	FD-1413(32)
Ohsawa Shinya	LT-3935(62)	Pham Hong Quang	TF-2356(77)
Ok Geun Jeong	LT-2713(60), TF-2721(77)	Pham Van Trinh	PE-3857(102)
Okhyun Nam	LT-2071(56), LT-2051(60), LT-2201(60), LT-2533(60), PV-4206(110), TF-2090(76), TF-2100(76), TF-2449(77)	Phan Hong Khoi	PE-3857(102)
On-Jeon Park	PV-2388(106)	Phan Ngoc Minh	PE-3857(102)
Orapim Namsar	FP-3097(24)	Pharatree Jaita	FP-2988(24), FD-3253(37)
Oratai Jongprateep	FD-0950(31)	Pichet Limsuwan	NM-0466(52)
Ow Tae Kwon	LT-1731(59)	Ping Ju	EM-0683(137)
Oybek Tursunkulov	ES-0393(127)	Ping Liu	FC-1047(116)
P			
P. Kirsch	TF-4067(71)	Ping Yu	ES-2179(130), PE-2191(101), TF-2168(76), TF-2370(77)
P.J. Yadav	LT-3451(65)	Ping-lu Shi	LT-1238(58)
Paik-Kyun Shin	PV-0613(105), PV-0616(112), NM-1048(52), TF-2993(78)	Pinit Kidkhunthod	NM-2193(45)
Palanisamy Kumar	PV-0613(105), PV-0616(112)	Pitt Supaphol	FC-3670(117)
Pam A. Thomas	FP-4543(19)	Piyalak Ngernchuklin	FD-3903(33)
Pan Pan	PE-2846(102), ES-2740(136)	Ploypailin Yongsiri	FD-1562(40)
Parkpoom Jarupoom	FP-3976(25)	Po-Hsun Lei	PV-4164(104)
Pasinee Siriprapa	FD-3253(37)	Pooja Yadav	LT-3495(56)
Patin Tagsin	ES-3612(132)	Pornjuk Srepusharawoot	NM-2193(45), ES-1182(135)
Patiya Kemacheevakul	OS-4302(87)	Povilas Seibutas	OS-2869(91)
Pavel Pyrjaev	FC-3492(118)	Prabakar Kandasamy	NM-2431(54)
Pawinee Klangtakai	ES-3612(132), ES-4168(133), NM-4144(51)	Pratibha Sharma	ES-4433(133)
Peilian Feng	FD-0251(42), FD-0295(42)	Praveena Kuruva	FD-3952(32)
		Preeyakarn Eaksuwanchai	FP-3201(24)
		Pyeong-Ho Choi	OS-1764(96)
		Pyohwan Hong	PV-4241(110)
		Pyoung-Ho Choi	OS-1453(95)
		Pyungho Choi	PV-0958(112)
		Pyungwoo Jang	FP-3660(28), TF-3688(70), EM-3695(140)

Author Index

Q

Qi Zhang	KC-0681(150)
Qian Zhang	FD-0585(43), FD-0593(43)
Qing Guo	PE-3223(98)
Qingfeng Li	FC-3620(118), FC-0643(118)
Qingyan Wang	EM-0683(137)
Qingyu Xu	KC-0349(152)
Qiuju Li	KC-0573(151)
Quantong Che	FC-0269(118)
Quoc Khanh Dang	FC-0401(121)

R

R.A. Nafdey	EM-3348(139)
R.k. Kotnala	KC-1945(151)
Radhapiyari Laishram	FD-0926(29)
Radoslav R. Adzic	FC-1047(116)
Rahul C. Kambale	KC-3607(151)
Rajneesh Mohan	OS-3391(92)
Rak-Hyun Song	ES-0785(126), FC-3102(117)
Rattikorn Yimnirun	FD-0302(31)
Raziyeh Gharahkhani	FD-0220(29)
Riccardo Mori	NM-3431(46)
Riccardo Ruffo	ES-4448(125)
Rimhwan Lee	LT-2885(57)
Rina Pandey	PV-1038(112), TF-1420(68)
Ringaile Katiliute	OS-2869(91)
Rino Choi	FM-1609(80)
Rizwan Ahmed Malik	FP-1034(26), FP-1275(27)
Rob A.M. Wolters	TF-0963(67)
Robert Ilango	FC-1432(118), FC-1418(118)
Robertas Grigalaitis	FP-2695(23), OS-2869(91)
Roland Sarmago	TF-3873(70)
Ronghuan He	FC-0269(118)
Roopam Gaur	FD-0926(29)
Rudy Tawie	FD-0341(32)
Russameeruk Noonuruk	OS-0929(89)
Ryo Kudo	FD-1413(32)

Ryosuke Amiya	LT-2900(61), LT-3017(61)
Ryutaro Maeda	EM-2542(147)
Ryuhei Iwasaki	TF-1522(74)

S

S J Jeong	FD-0779(33)
S. B. Bae	PE-1037(98)
S. H. Moon	PE-1037(98)
S. K. Banerjee	TF-4067(71)
S. M. Alfaro	FC-0367(118)
S.A. Spiegelhauer	FC-0367(118)
S.A. Telang	EM-3348(139)
S.K. Oh	OS-2479(90)
S.V. Moharil	LT-3495(56), LT-3451(65)
Sae B. Oh	EM-0700(144)
Sahn Nahm	PE-2578(98), FD-1389(31), NM-3860(51), FD-2104(41)
Sain Hong	LT-2051(60)
Sakuntam Sanorpim	NM-4144(51)
Saleem Mohsin	FD-0779(33)
Sam-Kwang Cho	LT-3735(57)
Saman Saekow	PV-3209(107)
Samuk Pimanpang	ES-3612(132), ES-4168(133), PV-3199(107), PV-3209(107)
San Moon	FD-4247(39), ES-2630(127)
San Nahm	FC-3587(120)
Sang Cheon Park	EM-2542(147)
Sang Choon Ko	PE-1037(98)
Sang Chul Lim	FM-3718(83), FM-3802(83), FM-4015(84), OS-2890(97)
Sang Gon Kim	LT-4131(62)
Sang H. Lee	EM-4478(143), EM-0692(144), EM-0700(144)
Sang Heon Lee	EM-3896(141), EM-4307(142), EM-0655(144), EM-0659(144)
Sang Heum Byun	EM-3461(148)
Sang Ho Oh	PV-3468(104)

Sang Hoon Joo	FC-1855(123)	Sang-Heung Lee	OS-0326(94)
Sang Hyeon Kim	NM-3213(49)	Sang-Ho Kim	FC-2765(119)
Sang Hyub Lee	NM-1349(53), TF-2223(68), TF-1358(74)	Sang-Hun Nam	TF-4414(72)
Sang Hyun Jung	LT-0388(64)	Sang-Hun Song	OS-2649(88)
Sang Il Seok	PV-3439(104), PV-3599(108), PV-3624(108), PV-3855(109), NM-2974(54)	Sang-Hyeon Lee	FP-0460(26), FD-0455(43)
Sang Jae Kim	ES-1379(135), OS-3391(92), NM-1570(53)	Sang-Hyun Han	LT-2175(57)
Sang Jeen Hong	LT-1739(57), EM-0498(138), TF-2075(67), EM-2607(138), EM-0499(144), TF-0501(72), TF-2039(76)	Sang-Hyun Jeong	FD-4065(38)
Sang Jik Kwon	EM-2081(147)	Sang-Hyun Song	FC-3917(117), FC-3920(121), FC-3930(121)
Sang Jun Lee	NM-3628(50)	Sang-Im Yoo	FD-3049(37), OS-2958(91), TF-4527(67), TF-3006(78)
Sang Min Han	OS-4031(93)	Sang-Jin Lee	EM-2895(138), EM-3823(141)
Sang Min Jung	PE-3748(102)	Sang-Jun Lee	LT-3368(61)
Sang Min Lee	EM-2410(147)	Sang-Min Lee	ES-4260(133), ES-1475(136)
Sang Mok Kim	NM-3559(50)	Sang-Mo Koo	PE-2775(102), PE-2778(102)
Sang Ouk Ryu	TF-2943(77)	Sang-Mook Kim	OS-2243(90)
Sang Seok Lee	FM-3718(83), FM-3802(83), FM-4015(84)	Sang-Sik Choi	PE-1951(101), LT-1230(65)
Sang Su Kim	FP-2938(24), FP-0832(26), FP-1877(28)	Sang-Sik Kang	EM-4180(142), EM-4183(142), EM-4186(142), EM-4216(142)
Sang Suk Lee	OS-2890(97)	Sang-Sub Kim	OS-1453(95)
Sang Woo Kim	FC-2700(119)	Sang-Uk Park	TF-2034(76)
Sang Yeol Lee	OS-1145(87), OS-4031(93), OS-4072(93), OS-1195(95), OS-1636(96)	Sang-Wan Ryu	TF-3447(70)
Sang Youn Jeon	FC-1855(123)	Sang-Wha Lee	ES-4459(133)
Sang Young Park	LT-0817(64), LT-1086(65)	Sang-Won Lee	FM-1321(85)
Sang Yun Lee	TF-1871(75), TF-1901(75)	Sang-Woo Han	PE-0843(100)
Sang-Gil Woo	ES-3426(132), ES-3434(132), ES-3442(132)	Sang-Woo Kim	FD-3157(37), OS-4376(87), LT-3851(62), FD-1250(39), FD-1289(39), FD-1300(39), FD-1395(39), FD-1528(40), FD-1632(40), FD-1633(40), FD-1641(40), FD-1715(40), FD-2054(41)
Sang-Goo Lee	KC-3607(151)	Sang-Woo Ryu	OS-2874(91)
Sang-Hee Ko Park	OS-4295(93), TF-4274(71)	Sang-Woo Song	PV-2388(106)
		Sang-hee Nam	OS-2105(97)
		Sang-joon Oh	LT-2773(61)
		SangGon Kim	EM-4325(142)

Author Index

SangHee Nam	FM-0442(84), FD-2288(42), EM-0574(144)	Se Won Han	NM-0539(52), NM-0714(52)
SangHoon Sin	FP-2717(24)	Se Yong Park	FM-3476(83)
SangHyun Kim	OS-0809(94)	Se-Geun Park	LT-3381(61)
SangSig Kim	FM-3898(84), OS-1297(95), TF-3900(70), TF-3979(71), EM-1117(145), EM-1126(145), EM-1127(145)	Se-Hyuk Yeom	PV-3110(107)
SangYeol Lee	OS-1297(95)	Se-In Oh	FM-2913(82)
Sangbaek Park	NM-3213(49)	Se-Man Oh	TF-0979(73)
Sangeun Lee	TF-0318(72)	Se-Yun Kim	OS-2672(91)
Sangho Kim	PV-1573(113), PV-1586(114)	Se-hee Cho	PV-1038(112)
Sanghwa Yoon	PV-3242(107)	Sehkyu Park	FC-4195(121)
Sanghyun Hong	FC-2476(119)	Sei Ki Kim	FD-4107(38)
Sangil Hyun	FM-3767(83), FM-3795(81), NM-2257(54)	Sei-Min Kim	LT-4239(56), LT-4217(62)
Sangjoon Lee	PV-2004(115)	Seiji Nakashima	FP-2012(23)
Sangmo Koo	TF-3967(71)	Seohwi Woo	TF-2090(76), TF-2449(77)
Sangsik Kang	FD-2288(42)	Seok Gi Park	PV-3730(109)
Sangsoo Kim	FP-1815(27), FP-1934(28)	Seok Hee Lee	ES-2783(131)
Sangsub Kim	PV-0958(112)	Seok Jin Yoon	ES-2205(128), FD-1404(39)
Sangtae Lee	OS-0734(89)	Seok Jin Yun	TF-1627(75)
Sangwook Kim	FP-1815(27), FP-1877(28), FP-1934(28)	Seok Jong Jeong	LT-2825(61), FM-1825(86)
Sangyoung Lee	FC-1852(123)	Seok-Beom Yoon	LT-4378(63)
Sano Ryouhei	FC-3994(116)	Seok-Cheol Ko	EM-0541(144), EM-1264(145), EM-1961(147)
Santhakumar Kannappan	PV-0616(112)	Seok-Heon Lee	LT-4239(56)
Saroj Rujirawat	FD-0302(31)	Seok-Jin Yoon	FD-4073(38), FD-1389(31), ES-1487(136), NM-3860(51), FD-1498(39), TF-1384(74)
Sarunas Bagdzevicius	FP-2695(23)	Seok-Joo Park	ES-0785(126), FC-3102(117)
Sasaki Tubasa	FC-3994(116)	SeokJin Yoon	TF-4099(71)
Satoshi Takamiya	FM-2560(79)	Seol Hyang Kim	ES-1469(136)
Satoshi Wada	FP-1829(22), FP-1201(27), FP-1435(27), NM-1991(47)	Seon Woong Han	TF-4041(71)
Se B. Oh	EM-4418(143)	Seon-Ho Jang	LT-4239(56), LT-4217(62)
Se Bin Kim	FD-1908(34)	Seon-Min Kim	ES-0890(134), ES-0927(134), ES-1475(136)
Se Hee Cho	TF-1420(68)	Seong Bong Yim	FC-2664(119)
Se Jong Lee	TF-4041(71)	Seong Cheol Mun	NM-2830(49)
		Seong Deok Ahn	NM-1830(53)
		Seong Eun Shim	NM-0464(52)
		Seong Gu Kang	FM-1825(86), TF-1860(75)

- | | | | |
|------------------|---|-------------------|---|
| Seong Gwan Shin | PV-4053(109) | Seonil Kwon | FM-2405(79) |
| Seong Ho Lee | ES-1619(136), ES-1666(136) | Seonjea Lee | PV-2484(106), PV-1271(113),
TF-1068(73) |
| Seong Hyeon Kim | PV-3713(108), PV-4233(110) | Sergei V. Kalinin | FD-1747(33) |
| Seong K. Cho | EM-0697(144) | Sergey Varlamov | PV-0412(111) |
| Seong Kwang Hong | FD-1342(32), FD-1653(40),
FD-1908(34) | Seul-Yi Lee | FC-3036(120) |
| Seong Kyu Cheon | FD-0828(44) | Seulky Lim | ES-2097(125) |
| Seong M. Cho | FM-4350(84) | Seung Bin Park | ES-3412(125) |
| Seong Mi Yu | OS-4163(93) | Seung Dong Yang | PV-3713(108), PV-4233(110) |
| Seong Sik Shin | NM-3213(49) | Seung Ho Han | FP-2863(24) |
| Seong Su Jeong | FD-0828(44) | Seung Hoon Nahm | FC-0300(121) |
| Seong Su Kim | FD-1641(40) | Seung Hun Huh | FM-2817(82) |
| Seong-Dae Park | FM-1544(85), EM-2641(147) | Seung Hwan Kim | LT-3762(61) |
| Seong-Ho Baek | PV-3121(107) | Seung Hwangbo | TF-0487(72) |
| Seong-II Kim | TF-3173(69) | Seung Hyun Jee | ES-2783(131) |
| Seong-Kyu Cheon | FD-1517(40) | Seung Hyun Lee | FM-3641(83), OS-1105(95) |
| Seong-Min Jeong | PE-2534(101), PE-2980(102),
NM-2509(48), NM-2984(49) | Seung Jae Oh | PV-3468(104) |
| Seong-Su Jeong | FD-1517(40), FD-0397(42) | Seung Ki Baek | OS-1150(95) |
| Seong-bong Yim | NM-3685(50) | Seung Koo Park | FM-0535(79), FM-1676(85) |
| SeongHo Han | TF-0290(72) | Seung Min Kim | ES-3104(131) |
| SeongHyeon Kim | PV-4000(109) | Seung Muk Lee | NM-1349(53), TF-2223(68),
TF-1358(74) |
| SeongKyu Cheon | FD-1443(39) | Seung Won You | FM-1609(80) |
| SeongSu Jeong | FD-1443(39) | Seung Woo Ham | EM-4550(143) |
| Seongeun Shim | NM-0482(52) | Seung Yeon Park | ES-0795(134), ES-0840(134),
ES-1122(135), ES-1469(136) |
| Seonghoon Jeong | LT-0750(64), OS-1196(95),
LT-1281(65) | Seung Yol Jeong | NM-2384(47) |
| Seongjun Kim | LT-0750(64), OS-1196(95),
LT-1281(65) | Seung-Bin Baek | TF-2564(77) |
| Seongmin Jeong | FC-2588(119) | Seung-Bok Lee | ES-0785(126) |
| Seongmun Eom | FP-1979(23) | Seung-Boo Jung | FM-3489(79), FM-3331(83),
FM-0560(84), FM-1845(86) |
| Seongrok Seo | ES-2097(125) | Seung-Dae Kim | TF-0487(72) |
| Seongsu Lee | PV-1721(114) | Seung-Gol Lee | LT-3381(61) |
| Seongwoo Kim | FD-0859(34) | Seung-Ho Han | FD-1726(40) |
| Seongyeob Park | NM-0482(52) | Seung-Ho Kang | ES-1457(128), ES-1152(135) |
| Seongyoung Choi | FC-1852(123) | Seung-Hoon Lee | PE-2448(101) |
| Seonhee Lee | ES-2097(125) | Seung-Hwan Lee | ES-3925(133), ES-4383(133) |

Author Index

- | | | | |
|----------------------|---|--------------------|--|
| Seung-Hyub Baek | PE-2578(98), OS-1480(96) | Sheela Devi | FD-0997(31), KC-3211(153) |
| Seung-Jae Lee | TF-3447(70) | Sheng-kai Li | NM-2785(49) |
| Seung-Kyu Yang | NM-2598(48), NM-4505(45) | Shi-Yeon Kim | EM-3520(140) |
| Seung-Myeong Baek | LT-1292(65), EM-4386(143) | Shidong Cheng | PE-3223(98) |
| Seung-Nam Kim | FM-1544(85) | Shigefusa Chichibu | LT-3356(55) |
| Seung-Soo Han | TF-0531(72), TF-0579(73) | Shih-Chang Shei | LT-4081(62), LT-4084(62) |
| Seung-Tae Kim | PV-3061(107), TF-0848(73) | Shihua Ding | FD-0585(43), FD-0593(43) |
| Seung-Wook Lee | ES-3001(131) | Shihyun Ahn | PV-1340(113) |
| Seung-Yong Pyun | OS-1820(96), FM-2256(86) | Shimpei Ono | LT-3284(58) |
| Seung-Youl Kang | NM-1830(53) | Shin Han | NM-2691(48) |
| Seung-Yun Lee | EM-3843(141), PV-3846(115) | Shin Hur | FD-2501(36), FD-0859(34),
FD-1638(40) |
| Seung-hyun Song | FD-3379(38) | Shin Saito | TF-2295(67) |
| SeungDong Yang | PV-4000(109) | Shin-Won Kang | FM-1321(85) |
| SeungNam Cha | EM-3054(148) | Shinae Park | FC-0452(118) |
| Seungbok Lee | FC-3102(117) | Shintaro Ueno | FP-1829(22), FP-1201(27),
FP-1435(27), NM-1991(47) |
| Seungchan Ryu | PV-3855(109) | Shinuk Cho | PV-1905(114) |
| Seunggu Kang | LT-1686(59), LT-1784(59),
LT-1994(59), LT-1437(65),
LT-1494(65) | Shinya Someno | FP-1286(27) |
| Seunghye Yu | PV-3991(109) | Shizuyasu Ochiai | PV-0613(105), PV-0616(112),
NM-1048(52), TF-2993(78) |
| Seungho Lee | PV-1340(113) | Shoou-Jinn Chang | LT-4081(62) |
| Seunghwan Lee | PV-1392(113) | Shu Hotta | FM-2996(83) |
| Seunghwan Moon | LT-2071(56), LT-2533(60),
PV-4206(110), TF-2100(76) | Shuhei Fujioka | LT-2900(61) |
| Seunghyo Noh | FC-0516(118), NM-3116(49) | Shuhei Tsukamoto | FP-1829(22), NM-1991(47) |
| Seunghyup Yoo | FM-4423(79) | Shuichi Murakami | FD-2757(32) |
| Seungil Park | ES-2076(130), PV-0383(111),
PV-2247(115) | Shulan An | ES-2097(125) |
| Seungjae Oh | LT-3353(55) | Shulan Wang | ES-0706(126) |
| Seungmin Yeo | PV-3121(107) | Shun Endo | FP-0565(26) |
| Seungwook Eom | FC-0821(122) | Shun-lung Su | NM-2785(49) |
| Seyoung Choi | LT-4078(62) | Shunsuke Sato | OS-4319(93) |
| Shankar Narayanan | ES-1043(127) | Shuozhen Hu | FC-0369(116) |
| Shanmugam Govindaraj | NM-4429(46) | Shuping Song | PE-1232(99) |
| Shanmugam Parthiban | OS-4512(97) | Shuxiang Dong | FD-4322(33), KC-0914(150),
KC-1262(153), KC-1574(153) |
| Shaopeng Wu | PE-2846(102), ES-2740(136) | Shyama Rath | OS-4395(88), TF-2878(67) |
| Shashwath Anand | FP-4543(19) | Si Cheol Noh | FD-4245(35) |

Si Hieu Nguyen	ES-1678(129)	Soo Deok Han	TF-1627(75)
Si Hun Lee	TF-4248(71)	Soo Jin Kim	FC-4213(121)
Si-Cheol Noh	EM-4180(142), EM-4183(142), EM-4186(142), EM-4216(142)	Soo Min Hwang	NM-1349(53), TF-2223(68), TF-1358(74)
Si-Hyun Park	LT-0952(64)	Soo Yong Lee	PV-2220(115)
Si-Nae Park	PV-0549(111)	Soo Young Kim	NM-3757(51), PV-3796(109), FM-3801(83), LT-3807(62)
Sie Young Choi	TF-4248(71)	Soo-Jin Park	FC-3036(120)
Sien Ho Han	LT-3807(62)	Soo-Kil Kim	FC-2409(116), FC-2293(119), FC-3591(1200)
Sieyoung Choi	ES-3960(133)	Soo-Kyoung Kim	PV-0797(112), PV-0807(112), PV-0918(112), NM-0933(52)
Sihun Lee	ES-3960(133)	Soo-Young Cho	FC-1564(117)
Sin-Woong Kim	FP-0460(26), FD-0455(43)	Soodkhet Pojprapai	FD-3253(37)
Sineenart Suphankij	NM-4253(51)	Sooho Lee	PV-2911(115)
Siqin Meng	PE-0755(100)	Soohoon Jung	PV-0921(112)
So Heo	TF-0319(68)	Soohwan Lee	ES-2602(130), ES-2650(131), FD-2639(44)
So Hyoun Jeon	TF-4414(72)	Soon Gil Yoon	FD-3296(34)
So Hyun Jeong	OS-1064(95)	Soon Hyeong Kwon	PV-2484(106), PV-1271(113)
So Me Juon	FC-4496(124), FC-4500(124)	Soon Jae Yu	LT-4378(63)
So Yeon Yoo	FD-1498(39)	Soon Yoon	TF-0319(68)
So Young Kim	NM-1430(53), NM-2008(54)	Soon-Chul Ur	FP-3045(19)
So-Nam Yun	EM-1761(137), FD-1695(40)	Soon-Dong Park	ES-0795(134), ES-0840(134), ES-0888(134), ES-1098(135), ES-1122(135), ES-1469(136), FM-2686(82)
So-Ra Gang	LT-1026(65)	Soon-Gil Yoon	FD-3073(37), PV-3303(103), TF-3184(68)
So-Young Kim	NM-0332(51)	Soon-Jong Jeong	FP-0426(25), FP-0460(26), FP-0485(26), FD-0421(43), FD-0455(43)
SoYoon Shin	NM-1570(53)	Soon-Ki Jeong	ES-0711(134)
Sohee Jeong	PV-2976(106), PV-3341(108), LT-4042(62)	Soon-Ku Hong	TF-2960(67)
Sok Kyun Choi	NM-3541(50), NM-3559(50), TF-3550(70)	Soon-Mok Choi	NM-0332(51), NM-1425(53), NM-1430(53), NM-1512(53), NM-2008(54)
Somang Choi	EM-2607(138)		
Son Min-Kyu	PV-0797(112)		
Song A Chae	FP-2344(23)		
Song Gi Min	PE-2684(101)		
Song Tianxiu	FD-2950(37)		
Song-I Kim	EM-3054(148)		
Song-Yi Han	OS-3248(92)		
Songhak Yoon	FD-0779(33)		
Songyi Park	PV-0797(112), PV-0807(112), PV-0918(112), NM-0933(52)		

Author Index

Soon-Won Jung	FM-3718(83), FM-3802(83), FM-4015(84), OS-2890(97)	Sudong Park	NM-0879(52)
Soon-Yong Kweon	PV-0412(111)	Sueng Ho Park	LT-0228(63), LT-3648(66)
Soon-mi Choi	FD-3049(37)	Suguru Funasaki	TF-1522(74)
Soongil Yoon	FD-3141(37)	Suhyun Yoon	FD-2054(41)
Soonho Lee	FC-1852(123)	Sujay Kumar	FM-2524(86)
Sooryong Chae	LT-2071(56), LT-2533(60), PV-4206(110), TF-2100(76)	Sujitra Chandarak	FD-0302(31)
Sooyeon Hwang	ES-3104(131)	Suk Ho Lee	NM-3074(49), NM-3185(49)
Sooyeoun Oh	FM-3687(80)	Suk Won Kim	LT-1078(65), LT-1086(65)
Sooyeup Yoo	PE-0363(100), LT-0360(63)	Suk Woo Nam	FC-2409(116), FC-4195(121), FC-4213(121)
Sorae Lee	ES-2097(125)	Suk-Ho Lee	OS-3371(92)
Sorapong Pavasupree	FD-3208(37), OS-4302(87), ES-3288(136), NM-0461(52), NM-0466(52)	Suk-Joon Park	ES-0890(134), ES-0902(134)
Soung Ouk Heo	TF-3907(71), EM-4002(141)	Sukanda Jiansirisomboon	FP-2912(19), FP-2988(24), FP-3097(24), FP-3201(24), FD-3253(37), FP-3407(25)
Soyeon An	TF-0873(73)	Sukeun Yoon	ES-1080(135)
Soyoung Choo	OS-2874(91)	Sukho Lee	OS-3310(92), TF-3147(69)
Sridhar Dalai	ES-4433(133)	Sukhyung Park	TF-3979(71)
Su A Park	FD-2501(36), FD-0859(34), FD-1638(40)	Sukill Kang	TF-3180(69), TF-1920(76)
Su Bin Yang	PE-2790(102)	Sumonman Niamlang	FD-3208(37), ES-3288(136)
Su Chang Ahn	LT-2679(60)	Sun Hye Shin	LT-0728(64), LT-0761(64)
Su Ha	FC-0369(116)	Sun Min Byeon	FP-2702(24)
Su Ho Lee	FP-2116(23), FD-2226(42)	Sun Young Jee	FM-3331(83)
Su Jin Kim	LT-3944(62), LT-1078(65), LT-1086(65)	Sun-Hee Kang	KC-3383(153)
Su Wung Baek	NM-3185(49)	Sun-Ho Choi	PV-1323(113), PV-1344(113)
Su Yeon Lee	NM-3254(49)	Sun-Hwa Yeon	ES-0945(134)
Su-Rim Choi	EM-4186(142)	Sun-Ig Hong	EM-4409(143)
Su-Wung Baek	NM-3074(49), OS-3310(92), OS-3371(92), TF-3147(69)	Sun-Mi Hwang	FC-1855(123)
Su-bin Moon	TF-4286(72)	Sun-Mi Oh	FD-1726(40)
SuKyoung Kwon	TF-0290(72)	Sun-Woo Kwak	FM-1206(85)
Subin Lee	PV-3468(104)	Sun-Wook Kim	TF-3967(71)
Subrata Sarker	FC-3241(120), PV-3232(107), PV-3236(107)	Sun-Young Kim	EM-3573(140), EM-3581(140)
		Sun-Young Park	FC-1564(117)
		Sun-min Kim	ES-3528(132)
		SunHo Choi	EM-4135(142)
		Sunbo Kim	PV-1340(113)
		Sung Chae Yang	TF-3907(71)

Sung Gyu Pyo	ES-2485(127), PV-2484(106), PV-1271(113), TF-1068(73)	Sung-Hoon Choa	FM-2913(82)
Sung Haeng Cho	TF-4274(71)	Sung-Hun Hong	NM-1381(53)
Sung Ho Nho	PV-1905(114)	Sung-Hun Lim	EM-0541(144), EM-1264(145), EM-1961(147)
Sung Hoon Ahn	NM-4505(45)	Sung-Hwan Kang	ES-2440(130), ES-2460(130)
Sung Hoon Hong	FC-2293(119), FC-3591(1200)	Sung-Hwan Shin	TF-0531(72), TF-0579(73)
Sung Hwan Cho	OS-3152(92)	Sung-Jei Hong	FM-3331(83), FM-2624(86)
Sung Hwan Park	FM-2817(82)	Sung-Jin Chang	EM-3023(148)
Sung Hyun Kim	FC-4213(121)	Sung-Jin Cho	FD-2666(36), LT-3188(55)
Sung Il Han	NM-2461(48)	Sung-Jin Kim	EM-2895(138), EM-3823(141)
Sung Jong Yoo	FC-2409(116), FC-4195(121), FC-4213(121)	Sung-Kwen Oh	TF-4137(71)
Sung Joo Hwang	FD-1342(32), FD-1399(35)	Sung-Min Hwang	LT-1779(59), LT-0728(64), LT-0761(64)
Sung Kyun Kim	FD-1289(39), FD-1528(40)	Sung-Min Park	OS-2182(97), TF-0979(73)
Sung Min Choi	FC-1616(122), FC-2042(123)	Sung-Min Yoon	OS-2277(90), OS-2282(90), FM-3718(83), FM-3802(83), OS-1817(88), OS-1937(96)
Sung Mook Choi	FC-2664(119), FM-2802(82), NM-3685(50)	Sung-Mo Kang	EM-3823(141)
Sung Park	FC-1160(122), NM-0355(51), FD-0676(43)	Sung-Nam Lee	LT-2151(60), LT-2176(60), LT-2175(57), LT-2172(58)
Sung Pil Lee	EM-3058(139), EM-3059(148)	Sung-Ok Hwang	KC-1623(153), KC-1643(153)
Sung Pil Woo	ES-2783(131)	Sung-Soo Ryu	FP-3809(21), LT-3851(62)
Sung Sik Won	FP-2494(23)	Sung-Suk Wi	TF-3326(70)
Sung Soo Kwak	FD-1715(40)	Sung-Wan Moon	OS-2182(97), TF-0979(73)
Sung Won Roh	PE-2711(99)	Sung-Won Yoon	EM-2542(147)
Sung Woon Moon	PE-2406(98), PE-2711(99), PE-2656(101)	Sung-Woo Lim	FM-1321(85)
Sung Yean Yoon	PV-3813(109)	Sung-Yong Min	EM-2919(138)
Sung Yong Cho	NM-2691(48)	Sung-Yoon Jung	LT-2907(57)
Sung Yong Kim	NM-4505(45)	Sung-min Cho	FD-3379(38)
Sung Yun Kim	PV-2383(115)	Sung-sik Won	FP-2344(23)
Sung-Baek Cho	ES-1615(125)	SungHun Kim	FM-0442(84)
Sung-Cheol Jang	FP-2805(24)	SungJin Noh	FM-0442(84)
Sung-Churl Choi	FM-3421(83)	SungKwang Park	FM-0442(84)
Sung-Eun Yoon	FC-3917(117), FC-3920(121), FC-3930(121)	SungPil Moon	FD-1399(35)
Sung-Gap Lee	TF-0966(73), EM-1002(145)	SungWon Roh	PE-2406(98), PE-2656(101)
Sung-Gyen Lee	EM-1307(146)	Sungchul Hong	TF-0318(72)
		Sungdal Jung	PE-2406(98), PE-2711(99)

Author Index

Sungeun Park	PV-4559(105)	Tae Geun Kim	LT-3944(62), LT-0817(64), LT-1078(65), LT-1086(65)
Sungho Kim	LT-3312(57)	Tae Gone Park	FP-2934(24), FD-0828(44)
Sungho Yun	PV-4241(110), PV-4256(110)	Tae Gyu Kim	TF-2721(77)
Sunghoon Jung	FM-3359(83)	Tae Ho Yeom	OS-1636(96)
Sunghoon Lee	PE-2656(101)	Tae Hoon Jeong	OS-0326(94)
Sunghoon Park	TF-0872(73), TF-0873(73)	Tae Hoon Jung	LT-0761(64)
Sunghun Lee	FM-4392(79)	Tae Hyun Sung	FD-1342(32), FD-1653(40), FD-1908(34), FD-1399(35)
Sunghyun Uhm	FC-3218(120)	Tae Jun Park	PE-2790(102)
Sungjae Bong	PV-1573(113), TF-1502(74)	Tae Kwon Song	FP-1243(27), FP-1877(28)
Sungjae Cho	LT-0398(64), PV-0399(111)	Tae Kyu Ahn	NM-2974(54)
Sungjin Choi	PV-3726(108)	Tae Min Kim	TF-3907(71), EM-4002(141)
Sungjin Kim	ES-0393(127)	Tae Soo Jeong	TF-3180(69), TF-1920(76)
Sungkuk Choi	PV-0921(112)	Tae Sung Bae	EM-3054(148)
Sungkyu Park	OS-2889(87)	Tae Wan Kim	LT-1731(59)
Sungmoon Hwang	PV-1926(114)	Tae Woong Kim	NM-1349(53), TF-2223(68), TF-1358(74)
Sungnam Lee	LT-3870(62)	Tae Yong Lee	TF-4248(71)
Sungnam Lim	ES-0945(134)	Tae Young Kim	NM-2691(48)
Sungu Hwang	TF-2721(77)	Tae Young Ma	OS-0410(94)
Sungwoo Bae	FM-1206(85)	Tae Yun Kim	FD-1632(40)
Sungwoo Yang	ES-1043(127)	Tae Yung Youn	FC-2700(119)
Sunyong Hwang	LT-3353(55), LT-3517(61)	Tae-Eon Bae	TF-1198(74)
Sunyong Kim	PV-1340(113)	Tae-Eon Kim	FC-4496(124), FC-4500(124)
Suphagrid Wongprakarn	ES-1182(135)	Tae-Gone Park	FD-1517(40), FD-0397(42)
Supree Pinitsoontorn	NM-2193(45)	Tae-Hee Han	EM-0541(144), EM-1264(145), EM-1961(147)
Surawut Chuangchote	PV-4298(103), OS-4302(87), NM-0461(52)	Tae-Ho Lee	TF-0966(73)
Sutham Niyomwas	NM-0466(52)	Tae-Hoon Chung	OS-2400(90)
Suttiruk Salaluk	FC-3949(117)	Tae-Hoon Lim	FC-2409(116), FC-4195(121), FC-4213(121)
Suyeol Lee	FP-1979(23)	Tae-Hwan Lim	OS-2182(97), TF-0979(73)
Suyeon Oh	NM-1451(45)	Tae-Hyun Yang	FC-1047(116), ES-3739(132), ES-3743(132), FC-1855(123), FC-1861(123)
Syed Atif Pervez	ES-2903(126)	Tae-Kwon Song	FP-0883(20)
T			
T. Allward	FC-0367(118)		
T. Steenberg	FC-0367(118)		
Tadashi Takenaka	FP-1103(19), FP-0565(26), FP-1286(27)		

Tae-Seop Han	NM-3376(50)	Taeyoung Won	LT-0799(64), LT-0808(64)
Tae-Seung Lee	FD-1726(40)	Tai-Chou Lee	ES-2538(126)
Tae-Sik Cho	PV-3904(109), PV-1143(112), PV-1178(113)	Taik-Min Lee	FM-1206(85)
Tae-Sik Kim	EM-2919(138)	Taiki Ito	FP-2012(23)
Tae-Sun Jun	OS-1646(96)	Taishi Takenobu	FM-2996(83), FM-1373(81), LT-3284(58)
Tae-Sung Bae	EM-3023(148)	Tak Jeong	LT-0619(55), LT-3762(61), OS-0326(94)
Tae-Uk Hur	ES-1457(128)	Tak-Hyoung Lim	ES-0785(126), FC-3102(117)
Tae-Wan Kim	PV-3061(107), TF-0848(73)	Takaaki Manaka	EM-3064(137)
Tae-Whan Hong	FC-3240(120)	Takaaki Tsurumi	FP-4127(22)
Tae-Won Kim	OS-2747(91)	Takafumi Maeda	FD-0556(29)
Tae-Woo Lee	EM-2919(138)	Takafumi Miyanaga	TF-1173(74)
Tae-Yeong Koo	KC-3383(153)	Takafumi Yao	TF-2960(67)
Tae-Yong Kim	ES-1170(135)	Takahiro Niwa	FD-2620(36), FD-2339(42)
Tae-Youb Kim	FM-4350(84)	Takahisa Kato	EM-2542(147)
Tae-Young Kim	NM-2582(48), NM-2583(48)	Takahisa Ohno	ES-3817(132)
Tae-beom Seo	LT-2773(61)	Takashi Sagawa	PV-4298(103)
Tae-hee Yoo	ES-3528(132)	Takashi Yamamoto	FP-2086(20), FD-0790(33)
Tae-min Ha	TF-2075(67)	Takeshi Kanashima	FP-2012(23)
TaeGone Park	FD-1443(39)	Takeshi Kawae	FD-2620(36), FD-2339(42)
TaeHwa Kim	TF-3142(69)	Takeshi Morita	FD-0556(29), FD-1365(30), FD-1413(32), FD-2353(33), FD-0528(33)
TaeSung Eom	PV-4071(109)	Takeshi Tai	FP-2086(20)
Taeun Yim	ES-3426(132), ES-3434(132)	Takeshi Yoshimura	FD-0569(32), OS-4319(93), FD-2757(32)
Taegon Kim	PE-1376(100), EM-1364(146), TF-1388(74)	Takeyoshi Onuma	LT-2900(61)
Taek Ahn	FM-1555(85), FM-1581(85)	Takuya Hoshina	FP-4127(22)
Taek Sung Kim	TF-3180(69), TF-1496(74), TF-1920(76)	Tao Huang	FP-0626(26), FP-0629(26), FP-0637(26), FD-0625(43), FD-0630(43)
Taek-Mo Chung	FM-1825(86)	Tarak Nath Mandal	PV-3439(104), PV-3624(108)
Taek-Soo Ji	NM-3628(50)	Tatsuo Ishijima	FD-2620(36), FD-2339(42)
Taek-Sung Kim	TF-2157(76), TF-2167(76)	Taweewat Krajangsang	PV-4268(110)
Taekjib Choi	FD-1747(33), PV-1721(114), PV-1926(114)	Teak Sung Kim	TF-1523(75)
Taekjun Kim	FM-1581(85)	Teerasak Kamwanna	NM-2193(45), OS-0836(94)
Taekwon Song	FP-1815(27), FP-1934(28)		
Taewan Kim	LT-0247(63)		
Taeyoung Koo	TF-3206(69)		

Author Index

Teerawat Monnor	FD-0302(31)	Trung Tran	FD-3073(37)
Teppe Uchiho	FD-1365(30)	Tsung-Ming Tsai	EM-2209(147), EM-2212(147)
Teresa Oh	FM-1969(86)	Tsutomu Araki	LT-3466(55)
Tetsuro Uchikoshi	NM-1991(47)	Tsuyoshi Yoshitake	TF-1522(74)
Thanakorn Wirunmongkol	NM-0461(52), NM-0466(52)	Tunchanoke Khongnakhon	FD-0950(31)
Thanatep Phatungthane	FD-3646(38), FD-1956(41)	Tung Thanh Duong	FD-3296(34)
Thang Nguyen Phan	NM-3757(51)	Twynam John	PE-2656(101)
Thanh Tung Duong	PV-3303(103)	Tzu-Teng Huang	OS-2162(97)
Thanit Tangcharoen	NM-4253(51), EM-0782(137)	Tzung-Shiun Wu	EM-2209(147)
Theerachai Bongkarn	FD-4282(33)		
Thi Anh Ho	EM-1810(146)	U	
Thi Hinh Dinh	FP-0720(19), FP-4010(19), FP-2631(20), FP-0584(26), FP-1034(26)	Ukjae Lee	PV-1271(113)
Thi My Linh Dang	LT-4520(66)	Umar Sidik	TF-0851(73)
Thiruvengadam Subburaj	ES-1440(126)	Umer Farooq	ES-2858(131)
Thomas Brown	NM-4036(46)	Un Jo	ES-3412(125)
Tianchai Taratiwat	PV-4268(110)	Unbong Baek	FC-0300(121)
Tianxiu Song	FD-0585(43), FD-0593(43)		
Tien Dai Nguyen	EM-4102(142)	V	
Ting-Wei Liaw	NM-3534(46)	V. Janardhanam	PE-1708(100)
Tingao Tang	KC-0450(151)	V. Kampylafka	OS-1697(96)
Tobias Hemsell	FD-1413(32)	V. Rajagopal Reddy	OS-3384(92)
Tohru Honda	LT-3466(55), LT-2900(61), LT-3017(61), LT-3935(62)	V. Senthilkumar	PV-1905(114), FD-0717(43)
Tohru Suzuki	NM-1991(47)	Vaishali A Patil	ES-2205(128)
Tomo Sakanoue	LT-3284(58)	Valentin Parmon	FC-3492(118)
Tomohiro Yamaguchi	LT-3466(55), LT-2900(61), LT-3017(61), LT-3935(62)	Valerii Bukhtiyarov	FC-3492(118)
Tong Gu	PE-3223(98)	Vallivedu Janardhanam	TF-2157(76), TF-2167(76)
Torranin Chairuangsi	NM-4114(51)	Van An Dinh	ES-3817(132)
Torsten Granzow	FP-0992(20)	Van Quyet Nguyen	FP-0584(26)
Toshinobu Yogo	FD-0416(30)	Varong Pavarajarn	FC-3670(117)
Toshio Kamiya	OS-4321(88)	Varsha Khare	NM-4505(45)
Tran Nam Trung	FM-4094(81)	Vasilis Binas	OS-0949(87)
Trieu Tuan Anh	FC-2476(119)	Vicky Kampylafka	OS-0967(94)
Trung Manh Tran	FD-3296(34)	Victor I. Klimov	PV-4477(104)
		Vijay (Kumar) Kulshreshtha	PV-3866(105)
		Vijayalakshmi Savithri	ES-4433(133)
		Vinayakumar Arepalli	PV-4118(110)
		Vinh Ai Dao	TF-1502(74)

- | | | | |
|-------------------------|---|-------------------|---|
| Virendra Kumar | KC-1945(151) | Whan-Gi Kim | FC-3240(120) |
| Vittaya Amornkitbamrung | ES-3612(132),
ES-4168(133), NM-2193(45),
PV-3199(107), PV-3209(107),
OS-0836(94) | Whangi Kim | FC-1852(123), FC-1867(123) |
| Vladimir V. Shvartsman | FP-1907(21) | Wichean Khawdas | FD-3208(37) |
| | | Wisanu Pecharapa | NM-4253(51), PV-4268(110),
EM-0782(137), NM-0461(52),
OS-0929(89) |
| W | | Witha B.K Putri | TF-1173(74) |
| W. B. K. Putri | TF-2356(77) | Wolfgang Kleemann | FP-2610(20) |
| W. J. Chang | PE-1037(98) | Won Bae Kim | FC-2664(119) |
| W. S. Chen | LT-0993(64) | Won Choi | EM-3499(140), EM-3496(148) |
| W. Y. Jang | PE-1037(98) | Won Geun Jang | NM-3628(50), TF-4286(72) |
| W. Y. Yan | LT-0993(64) | Won Ho Son | TF-4248(71) |
| W.J. Lee | OS-4344(93) | Won Jae Lee | LT-1731(59), LT-0247(63) |
| Wai Kian Tan | PV-0445(103) | Won Jin Choi | TF-1860(75) |
| Wan Doo Kim | FD-2501(36), FD-0859(34) | Won Jong Kim | FP-1243(27) |
| Wan-Gi Park | EM-3836(141) | Won Jong Lee | ES-1440(126), ES-1444(127),
FC-1418(118) |
| Wan-Shick Hong | FC-1305(122) | Won Jun Choi | PV-4220(110), OS-2296(88) |
| Wang Hongni | FD-2950(37) | Won Kook Choi | LT-0398(64), PV-0399(111),
TF-1420(68) |
| Wanichaya Mekprasart | NM-4253(51), OS-0929(89) | Won Nam Kang | ES-1469(136) |
| Wantana Klysubun | EM-0782(137) | Won Seok Choi | PV-2004(115), PV-2383(115) |
| Wasan Maiaugree | PV-3199(107), PV-3209(107) | Won Taek Park | EM-2607(138) |
| Wataru Sakamoto | FD-0416(30) | Won-Ik Jeong | FM-4392(79) |
| Wataru Takahashi | FM-2996(83) | Won-Jae Lee | LT-1779(59), LT-1786(59),
FM-2311(86), TF-1770(75) |
| Wee Hoo Rhee | FC-2700(119) | Won-Jeong Kim | FP-1815(27), FP-1877(28),
FP-1934(28) |
| Wei Lu | NM-0917(45) | Won-Jong Kim | FP-0883(20) |
| Wei Wang | FM-1335(79), NM-1654(53) | Won-Ju Cho | OS-2182(97), TF-0979(73),
TF-1198(74) |
| Wei-min Guan | FC-4264(121), FD-1030(31),
LT-1238(58), LT-1260(58) | Won-Jun Lee | FC-3604(120) |
| Weicheng Zhou | PE-3223(98) | Won-Kook Choi | PV-1038(112) |
| Weishan Chen | FD-0251(42), FD-0256(42),
FD-0295(42) | Won-Nam Kang | TF-1173(74) |
| Wen-Shan Chen | FD-2217(41), FD-2218(42) | Won-Seon Seo | PE-2534(101), PE-2980(102),
NM-2509(48), NM-2984(49),
NM-0332(51), NM-1425(53), |
| Wenlei Xiao | FD-4322(33) | | |
| Wenwu Song | NM-0583(46), FD-0585(43) | | |
| Weonpil Tai | FC-0465(121) | | |
| Weontae Oh | NM-0464(52), NM-0482(52) | | |

Author Index

- NM-1430(53), NM-1512(53),
 NM-2008(54)
 Won-Sik Choi LT-0952(64)
 Won-ki Kim FD-3379(38)
 WonSeok Choi PV-1999(115), PV-2955(115)
 Wonbeom Chang PV-0921(112)
 Wonchang Choi ES-1604(125), ES-1485(136)
 Wonhee Choi PE-2656(101)
 Wonho Son ES-3960(133)
 Wonmok Lee EM-4442(143)
 Wonyoung Chang ES-3104(131)
 Woo Hyung Lee NM-3185(49)
 Woo Je Lee LT-1739(57)
 Woo Jong Kim ES-1988(129)
 Woo Sang Park EM-3825(139)
 Woo Seok Kang PE-1328(100)
 Woo Seok Yang LT-4078(62), FD-1891(41)
 Woo Young Yoon ES-1751(129), ES-1796(129)
 Woo-Byoung Kim FD-3135(37), TF-2943(77)
 Woo-Seok Cheong OS-2468(90), OS-2473(90),
 OS-1820(96), OS-2240(97),
 FM-2256(86)
 Woo-Seok Yang FD-1272(39)
 Woo-Seong Kim ES-0927(134)
 Woo-Sub Lee OS-0757(94)
 Woo-Suk Cho FM-2946(82), FM-2953(83)
 Woo-Suk Jeong FD-1389(31)
 Woo-Sun Lee PV-4346(111), PV-4351(111)
 Woo-Sung Choi FD-1389(31), TF-1384(74)
 Woo-Sung Lee EM-2641(147)
 Woo-Young Yoon PV-0542(111)
 Woo-hyoung Lee OS-3310(92), OS-3371(92)
 Woo-jong Sim FC-3749(120)
 WooYoung Yoon ES-1850(129)
 Woohyoung Lee NM-3074(49), TF-3147(69)
 Woohyun Kim FM-2405(79)
 Wook Choi FD-2423(42)
 Wook Jo FP-0720(19), FP-2610(20),
 FP-0493(20), FP-2369(23),
 FP-4083(25), FP-0235(21),
 FP-1907(21), FP-4454(22),
 FP-0237(25), FP-1157(27),
 FP-5006(21)
 Wook Ki Jung ES-2630(127)
 Woon Seok Yang PV-3439(104)
 Woon-Ha Yoon KC-2251(150), KC-3607(151),
 FD-2259(35), KC-3307(153)
 Woon-Seop Choi FM-3641(83), OS-1105(95),
 FM-1131(85)
 Woong-Ki Hong EM-3023(148), EM-3054(148)
 Woosuk Cho ES-3426(132)
 Wooyoung Choi PV-1721(114), PV-1926(114)
 Worawan Bhanthumnavin FD-4361(30)
 Worawat Wattanathana FC-3968(117)
 Wu Zhijiang NM-3413(47)
- X**
- X. F. Zeng LT-4081(62)
 Xiang Wang FC-4264(121), FD-1030(31),
 LT-1238(58), LT-1260(58)
 Xiangqing Zhong FD-0585(43), FD-0593(43)
 Xiao Feiyi ES-0393(127)
 Xiao Li Zhang NM-4366(46)
 Xiaobing Liu NM-0583(46)
 Xiaobing Luo LT-0287(56), LT-0874(57)
 Xiaobo Xue KC-0349(152)
 Xiaohui Wang KC-4467(151)
 Xiaohui Yang FD-0256(42)
 Xiaohui Zhao ES-2440(130), ES-2460(130)
 Xiaojian Sun ES-2179(130), PE-2191(101)
 Xiaojiang Yang NM-0583(46)
 Xiaoshan Zhang ES-2179(130), PE-2191(101),
 TF-2168(76)
 Xiaoyang Chen ES-2179(130), TF-2168(76),

	TF-2370(77)	Yeong Hun Jang	LT-2679(60)
Xin He	FP-3809(21)	Yeong-Cheol Kim	FC-2573(119), TF-2564(77)
Xing Fu	LT-0287(56)	Yeong-Eun Lee	FC-2826(119)
Xu Liu	TF-2370(77)	YeongHo Jeong	FP-2719(24)
Xu Yansheng	NM-3413(47)	Yeongmin Na	FD-3315(37)
Xuan Liu	ES-0706(126)	Yewon Song	FD-1399(35)
Xue Zhang	OS-0757(94)	Yi Li	LT-2715(60), LT-2731(60)
Xuefeng Sun	KC-0573(151)	Yi-Pin Lin	FD-2217(41), FD-2218(42), EM-2209(147), EM-2212(147)
Xueqian Zhong	PE-4482(98)		
Xueyong Yuan	KC-0349(152)	Yidong Xia	OS-3144(91)
		Yin Shaoyou	NM-3413(47)
		Yingxiang Liu	FD-0251(42), FD-0256(42), FD-0295(42)
Y		Yinhua Cui	ES-2485(127), PV-2484(106), PV-1271(113), TF-1068(73)
Y K Kim	FD-0779(33)	Yisheng Chai	KC-3607(151)
Y. H. Tsai	TF-0606(73)	Yogeshwar Sahai	FC-0513(116)
Y. R. Park	PE-1037(98)	Yohei Sugiura	LT-3017(61)
Y. Z. Chiou	LT-0993(64)	Yohei Tadano	FD-2353(33)
Y.-J. Chang	OS-4323(93)	Yokouchi Yuriko	FD-0556(29)
Yan Lang	EM-4371(138), EM-3997(139)	Yong An Kwon	TF-2033(76)
Yan Sheng	KC-0349(152)	Yong Chan Choi	PV-3439(104), PV-3624(108)
Yanbin Chen	OS-2377(89)	Yong Choi	EM-3896(141), EM-4307(142), EM-4407(143), EM-4409(143), EM-4418(143), EM-4478(143), EM-0655(144), EM-0659(144), EM-0689(144), EM-0692(144), EM-0697(144), EM-0700(144), EM-0702(145)
Yanfeng Chen	OS-2377(89)		
Yang Do Kim	TF-3228(70)	Yong Gon Seo	LT-0728(64), LT-0761(64)
Yang-Do Kim	KC-3307(153)	Yong Hoon Cho	ES-0711(134)
Yang-Doo Kim	OS-2874(91), OS-3321(92)	Yong Hoon Rhee	PV-2627(106)
Yang-Gyeom Kim	LT-3304(61), LT-3381(61)	Yong Il Cho	FC-4500(124)
Yang-Soo Kim	ES-0711(134)	Yong Il Kim	ES-3412(125)
Yanqiang Liu	FD-4322(33)	Yong Jun Park	EM-3822(141)
Yaodong Yang	FP-0306(20)	Yong Jun Shin	TF-1901(75)
Yaoyang Liu	FD-0556(29)	Yong K. Park	EM-4478(143)
Yasushi Nanishi	LT-3466(55)		
Yasushi Nishioka	FM-2560(79)		
Ye Hwan Kang	EM-4501(143)		
Ye-Neug Lee	PV-0542(111)		
Yeon-Ho Kil	TF-3180(69), TF-1496(74), TF-1523(75), TF-1920(76), TF-2157(76), TF-2167(76)		
Yeong Gyun Kim	FD-1399(35)		

Author Index

Yong Kyoung Yoo	FD-2452(36), OS-2464(90)	Yongho Lee	ES-1485(136)
Yong Nam Jo	ES-1440(126), ES-3299(132), ES-1444(127), FC-1432(118), FC-1418(118)	Yongho Yoon	EM-2010(147), TF-2019(76)
Yong Rack Jung	OS-1470(96)	Yongkeun Song	FD-2288(42)
Yong Shin Kim	OS-1646(96), EM-1671(146), EM-1810(146)	Yongki Kim	EM-2255(138)
Yong Soo Cho	FD-4073(38), EM-4007(141)	Yongpil Park	PE-1376(100), EM-1364(146), TF-1388(74)
Yong Soo Kim	PV-1905(114), FD-0717(43)	Yongseob Park	PV-2911(115), PV-2955(115)
Yong Tae Kim	EM-3111(148)	Yongsug Tak	ES-1927(129), ES-1929(129)
Yong Woo Ha	FD-0828(44)	Yongsuk Tak	ES-1924(129)
Yong-Beom Jeong	LT-1735(59), LT-3304(61), LT-3381(61)	Yongsung Kim	LT-1494(65)
Yong-Chan Jeong	TF-2564(77)	Yongwon Kwon	FM-0962(84)
Yong-Deok Shin	PE-2448(101)	Yoon Jang Chung	FM-1825(86), TF-1860(75)
Yong-Gil Kang	PV-3061(107), TF-0848(73)	Yoon Seok Jeon	FM-1609(80)
Yong-Gun Shul	FC-4496(124), FC-4500(124)	Yoon Soo Choi	FP-1803(27)
Yong-Hae Kim	NM-0368(51)	Yoon Soo Han	NM-3545(50), NM-3561(50)
Yong-Hoon Cho	LT-4042(62)	Yoon-Hee Jeong	KC-3383(153)
Yong-Hyun Kim	PV-3341(108)	Yoon-Soo Chun	FD-1272(39), TF-1712(69), TF-1856(69), TF-2132(69)
Yong-Il Kim	FP-0312(25), FD-1878(41)	Yoonhee Jang	PV-3400(108), PV-3402(108)
Yong-Jin Yoon	PV-1461(113)	Yoonhee Jeong	TF-3206(69)
Yong-Jun Kim	EM-1002(145)	Yoonjoong Kim	EM-1126(145)
Yong-Jun Park	EM-3745(140), EM-3836(141)	Yoonseuk Choi	FM-1546(85), FM-1550(85)
Yong-Nam Jo	ES-3434(132)	Yoshihiro Kuroiwa	FP-1435(27)
Yong-Soo Cho	FP-2474(22)	Yoshinobu Hirose	FP-1829(22)
Yong-Tae Kim	FC-0452(118)	Yoshio Sakka	NM-1991(47)
Yong-Taeg Oh	OS-2661(90)	Yoshitomo Harada	LT-3582(56)
Yong-Won Song	ES-3528(132)	You Bi Kim	FD-4107(38)
Yong-Woo Ha	FD-1517(40)	You Jeong Eum	KC-1643(153)
Yong-Young Noh	FM-4404(84), EM-2919(138), FM-1206(85), FM-1717(86)	You Sung Lim	LT-4229(63)
YongHo Jung	PV-1999(115)	You-Jeong Eum	KC-1623(153)
YongJun Park	EM-3753(141)	You-Jin Kang	EM-0825(145)
YongMan Choi	FC-1047(116)	You-Jin Lee	ES-2903(126), NM-2852(54)
YongSoo Cho	TF-4099(71)	YouSeok Kim	FP-2719(24)
YongWoo Ha	FD-1443(39)	Youhyuk Kim	NM-2598(48)
		Youichi Ishikawa	LT-3356(55)
		Youl Baik	EM-0689(144)
		Youl Moon Sung	LT-4131(62), OS-4140(93),

	LT-4229(63)	Young Min Park	FC-0732(122)
YoulMoon Sung	EM-4325(142)	Young Moo Lee	ES-0902(134)
Youn Cheol Kim	NM-0355(51), FD-0676(43)	Young Rock Kim	NM-3545(50), NM-3555(50), TF-3550(70)
Youn Woo Hong	FD-3049(37), FD-4107(38)	Young S. Han	EM-0702(145)
Youn-Jea Kim	OS-3456(92)	Young Seek Cho	LT-4078(62)
Youn-Jung Lee	PV-3697(104), TF-1502(74)	Young Seon Lee	OS-1195(95)
Youn-Kyu Choi	FP-3809(21)	Young Soo Lim	NM-1425(53), NM-1430(53), NM-1512(53), NM-2008(54)
Young Bum Cho	EM-1810(146)	Young Soo No	TF-1420(68)
Young Bum Jo	OS-1646(96)	Young Soo Yoon	ES-2783(131)
Young Chan Kim	PV-3599(108), PV-3855(109)	Young Soon Moon	TF-4248(71)
Young Dae Cho	LT-3648(66)	Young Taec Kang	TF-2340(77)
Young Dae Seo	FM-2768(82)	Young Uk Ko	PV-4233(110)
Young Do Jung	FD-2501(36)	Young Whan Cho	FC-1837(122)
Young Dok Kim	FC-3218(120)	Young Yun	OS-0809(94)
Young Don Ko	TF-2039(76)	Young-Baek Kim	OS-2670(91), OS-2675(91)
Young Ho Ko	FP-1834(27)	Young-Bog Ham	EM-1761(137), FD-1695(40)
Young Hoon Kim	FC-1564(117)	Young-Chul Lee	FM-3331(83), FM-0560(84)
Young Hun Jeong	FD-3300(30), FD-2939(30), TF-2990(78)	Young-Gi Yoon	FC-3749(120)
Young Hwa Jung	ES-2615(130), ES-2630(127)	Young-Gon Yoon	FC-4195(121)
Young Hwa Lee	FD-0859(34)	Young-Gwang Cha	EM-2415(147)
Young Ji Yoon	NM-3541(50)	Young-Hee Joo	TF-1712(69), TF-1856(69), TF-2132(69)
Young Jin Do	OS-3363(92)	Young-Hee Lee	TF-0966(73)
Young Jin Kim	LT-3648(66)	Young-Hie Lee	ES-3925(133), ES-4383(133)
Young Jin Lee	FD-4107(38)	Young-Ho Kim	EM-1569(146)
Young Joon Cho	PV-1417(113)	Young-Hoon Kim	LT-3304(61), LT-3381(61)
Young Joon Oh	ES-3412(125)	Young-Hun Jeong	FP-2474(22)
Young Joon Yoon	PE-2534(101), OS-3152(92), EM-3153(148)	Young-Hwan Kim	TF-3173(69)
Young Jun Eoh	FD-0645(34), FD-1211(44)	Young-Hwan Lee	TF-0487(72)
Young Jun Kwak	ES-1619(136), ES-1666(136)	Young-Hyun Lee	NM-3635(50)
Young Jun Oh	OS-0336(88)	Young-Jae Park	TF-1496(74), TF-1523(75)
Young Ku Jin	PV-3236(107)	Young-Jin Kwack	FM-1131(85)
Young Kuk Lee	LT-2825(61), FM-1825(86), TF-1860(75)	Young-Jun Byun	FC-4124(123), FC-4175(123)
Young M. Kim	EM-0697(144)	Young-Jun Choi	LT-1779(59), LT-1786(59)
Young Min Na	OS-1937(96)	Young-Jun Kim	ES-3001(131), ES-3299(132),

Author Index

	ES-3426(132), ES-3434(132), ES-3442(132)	Youngin Jeon	EM-1117(145), EM-1126(145), EM-1127(145)
Young-Kil Jun	PV-4351(111)	Youngjong Won	TF-2090(76)
Young-Kook Park	TF-0531(72), TF-0579(73)	Youngjun Ko	PV-1665(114)
Young-Ku Jin	FC-3241(120), PV-3232(107)	Youngmok Rhyim	PV-3010(106)
Young-Maan Cho	EM-1294(146), EM-1307(146), EM-1312(146)	Youngpyo Kim	PE-1376(100)
Young-Min Kong	FD-2639(44)	Youngseok Kim	EM-0327(144)
Young-Seo Park	FM-4392(79)	Youngsup Song	FM-2802(82), TF-3228(70)
Young-Seok Kim	EM-1141(145)	Youngtae Jeon	FC-1867(123)
Young-Soo Ahn	PV-2800(106), PV-0542(111)	Youngun Gil	LT-1281(65)
Young-Soo Lim	NM-0332(51)	Youngwoo Lee	FM-2524(86)
Young-Soo Seo	FM-2686(82)	Youngwook Hwang	LT-0799(64), LT-0808(64)
Young-Sun Jeon	TF-0487(72)	Younjung Lee	PV-4173(110), PV-1573(113)
Young-Sun Kim	ES-3031(131), ES-3038(131), ES-4254(133)	Younseok Lee	PV-3697(104)
Young-Taek Lim	NM-1048(52)	Yu Jin Park	LT-2435(60)
Young-Un Gil	LT-0750(64), OS-1196(95)	Yu Mi Kim	PV-3713(108), PV-4233(110)
Young-Woo Choi	ES-3739(132), ES-3743(132), FC-3749(1200), FC-4124(123), FC-4175(123)	Yu Ri Cho	FP-2863(24)
Young-Woo Heo	FC-2826(119), FC-4046(121), OS-2672(91), OS-2814(91), FC-3849(123), OS-3850(93)	Yu Sup Jung	PV-4172(110), PV-4160(105)
Young-Woong Lee	LT-4217(62)	Yu-Fong Huang	PV-4164(104)
Young-Zo Yoo	TF-1770(75)	Yu-Jung Cha	OS-3244(92), OS-3248(92)
Young-soo Kim	PV-2529(106)	Yu-Kai Tang	TF-3538(68)
YoungKyu Lee	FM-0442(84)	Yu-Ri Lee	OS-2670(91), OS-2675(91)
YoungRae Jang	FM-2686(82)	Yu-Zung Chiou	FD-2218(42)
YoungUk Ko	PV-4000(109)	Yu-kyung Kim	FP-0485(26)
Youngdo Jung	FD-0859(34)	YuJin Jung	PV-4551(115)
Youngdon Lim	FC-1852(123), FC-1867(123)	YuMi Kim	PV-4000(109)
Younggi Kim	ES-2103(130)	Yuan Zhang	FD-4322(33), KC-1262(153)
Younggil Cho	FC-1867(123)	Yudai Hukushi	FC-3994(116)
Youngho Mun	TF-0872(73)	Yuguo Tao	PV-0412(111)
Youngho Park	FM-3767(83), FM-3795(81)	Yuichi Yamamoto	FP-1201(27)
Younghun Jung	EM-4210(139)	Yujin Kang	OS-0230(94)
		Yujuan Niu	FD-2337(42)
		Yuko Imazawa	FD-2620(36), FD-2339(42)
		Yul Baik	EM-4478(143)
		Yumi Lee	EM-1364(146)
		Yun Been Na	OS-1470(96)
		Yun Chang Park	LT-4042(62)

Yun Jae Lee	PV-1038(112)
Yun Liu	NM-0583(46)
Yun-Gi Kim	TF-3326(70)
Yun-Hee Lee	FC-0300(121), FP-0312(25)
Yun-Sik Kim	OS-4417(94)
Yuna Lee	LT-1784(59)
Yunan Kim	ES-1122(135)
Yung-Eun Sung	FC-4195(121), FC-4213(121), FD-1498(39)
Yung-kuan Tseng	NM-2784(45), NM-2785(49), TF-2787(77)
Yunjeong Yang	ES-2097(125)
Yunjie Huang	FC-0643(118)
Yunseok Kim	FD-1747(33)
Yusong Choi	ES-1152(135)

Z

Z. S. Kim	PE-1037(98)
Zagarzusem Khurelbaatar	TF-3180(69), TF-1859(75)
Zainovia Lockman	PV-0445(103), OS-0614(87)
Zheng Wen	KC-1263(151), KC-0349(152)
Zhenkun Xie	FP-0775(26)
Zhenxing Yue	FD-0910(30), PE-0755(100), FP-0775(26)
Zhiguang Wang	FP-0306(20)
Zhiguo Liu	OS-3144(91)
Zhiqiang Xu	TF-2370(77)
Zhiying Zhao	KC-0573(151)
Zhuo Wang	FP-0626(26), FP-0629(26), FP-0637(26), FD-0625(43), FD-0630(43)
Zhuowei Zeng	FD-0585(43), FD-0593(43)
Zorigt Chuluunbaatar	LT-3188(55)
Zuo-Guang Ye	FP-2912(19)
Zurab Guguchia	KC-2835(150)

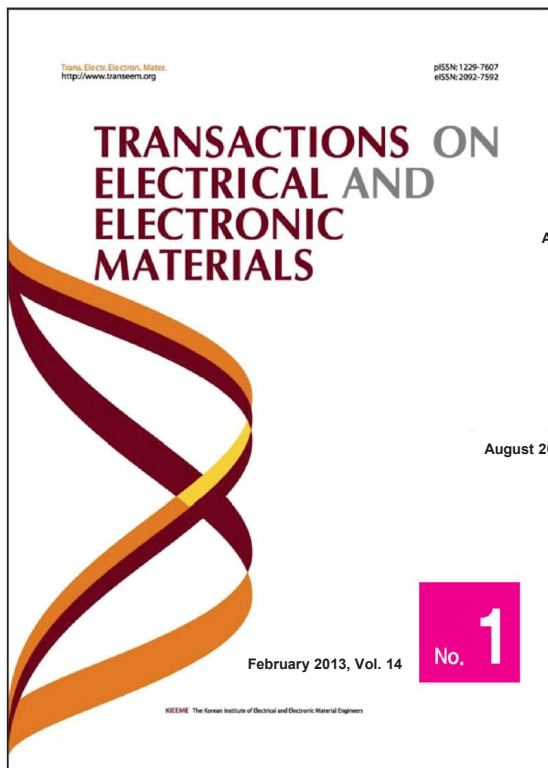
MEMO

MEMO

Call for Papers

Transactions on Electrical and Electronic Materials

www.transeem.org



April 2013, Vol. 14

No. 2

June 2013, Vol. 14

No. 3

August 2013, Vol. 14

No. 4

October 2013, Vol. 14

No. 5

December 2013, Vol. 14

No. 6

Transactions on Electrical and Electronic Materials (ISSN 1229-7607), Published by the Korean Institute of Electrical and Electronic Material Engineers (KIEEME) feature reports on significant new findings and prompt publications on advanced materials related on the electrical and electronic processes, device designs and fabrications.

DOI

SCOPUS

Electronic Press

Open Access Journal

National Research Foundation Index

pISSN: 1229-7607 eISSN: 2092-7592

In the journal, some of the covered technical areas are

- Semiconductors
- Electronic Ceramics
- Insulation Materials
- Thin Film and Sensors
- Display and Optical Devices
- Superconductor and Magnetic Materials
- Nanomaterials and Nanodevices
- Energy Materials
- High Voltage and Discharge Engineering
- Interdisciplinary and Engineering Educations

for additional information, visit the TEEM Website at

<http://www.transeem.org>

or Contact :

Rm 807. KSTC, 22, 7gil, Teheran-ro, Gangnam-gu, Seoul 135-703, Korea

Tel : +82-2-538-7958 , Fax : +82-2-538-3623

Email : kieeme@kieeme.or.kr



Publication of the proceedings was supported by
the Korean Federation of Science and Technology Societies Grant funded by the Korean Government.

ICAE 2013

**The 2nd International Conference
on Advanced Electromaterials**

Nov. 12 - 15, 2013, ICC Jeju, Jeju, Korea

ICAE 2013 SECRETARIAT

The Korean Institute of Electrical and Electronic Material Engineers (KIEEME)

Rm 807, The Korea Science & Technology Center, 22, 7gil, Teheran-ro Gangnam-gu, Seoul 135-703, Korea

ICAE 2013 Secretariat Min Jung Kim

Tel: +82-2-565-3571, E-mail: secretariat@icae.kr