

GOLDEN ACADEMY

Message from the organizers

Dear Colleagues and Friends,

2015 Global Research Efforts on Energy and Nanomaterials (GREEN 2015) will be held in Sun Moon Lake, Taiwan, during December 20-23 2015.

GREEN 2015 is a new symposium and aimed to provide a platform for the exchange and networking between top scientists, emerging young researchers, and students across a wide spectrum of materials science and engineering.

We would like to invite you to participate in GREEN 2015. Your active participation is the key to the success of this conference.



Yours Sincerely,

GREEN 2015 Committee

Asia Pacific Society for Materials Science (APSMR)

www.apsmr.org



GOLDEN ACADEMY

Conference organizing committee

CONFERENCE CHAIRS

Prof. Chau-Chang CHOU (National Taiwan Ocean University)

Prof. Yuta NISHINA (Okayama University)

Prof. Young Gun KO (Yeungnam Univeristy)

Prof. Anthony Shiaw-Tseh CHIANG (National Central University)

Prof. King-Fu LIN (Naional Taiwan University)

Prof. Pei LI (The Hong Kong Polytechnic Univeristy)

Prof. Yeh WANG (Tunghai University)

Dr. Rudder WU (National Institute for Materials Science)

CONFERENCE PROGRAM DIRECTORS

Dr. Yingxue SONG (APSMR)

CONFERENCE SECRETARIAT

Ms. Yangjun HU (APSMR)



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Conference topics

1. **Structure materials and Functional Coatings (metals, ceramics, and composites)**
2. **Materials for energy (saving, conversion, transfer, storage) and environment plus electrochemistry**
 - 2.1. **Photovoltaics**
 - 2.2. **Rechargeable Batteries and Fuel Cells**
 - 2.3. **Materials for Thermal Management and Thermal Energy Utilization**
 - 2.4. **Materials for Energy and Environmental Applications**
3. **Optics and Photonic Materials**
4. **Electronics, Magnetics and Nanomaterials**
5. **Polymer Science and Molecular Chemistry**
6. **Organic Materials and Biomaterials**
7. **Theory, Characterization and Computational Modeling of Materials**

	SUN, 12/20	MON, 12/21	TUE, 12/22	WED, 12/23
9:30 – 10:30	Pre-session technical and discussion forums	Oral Presentation		
10:30– 10:45		Coffee & Tea Break		
10:45 – 12:15		Oral Presentation		
12:15 – 13:30	Conference Registration	Lunch Break		
13:30 – 14:30		Oral Presentation	Oral Presentation	Optional Excursion
14:30 – 14:45		Coffee & Tea Break	Free time (conference excursion)	
14:45 – 17:15		Oral Presentation		
17:15 – 18:30		Poster Session Time		
18:30 – 20:30			Conference Banquet (Approx. 2 hrs)	
20:30 – 21:30	Conference Reception			

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Presentation List (No. 1 Meeting Room)

	SUN, 12/20	MON, 12/21	TUE, 12/22	WED, 12/23
9:30 - 10:30	Staff Meeting	1. J. SC JANG 2. I.P. WIDIANTARA	11. T.S. KIM 12. C.J. LIU	18. C.Z. LU 19. L.Y. WANG
10:30 - 10:45		Coffee & Tea Break		
10:45 - 12:15		3. H. KINOSHITA 4. M.P. KAMIL 5. Y. YAMADA	13. Y. SATO 14. F.B. WU 15. C.H. CHU	Wrap-up Discussion
12:15 - 13:30	Conference Registration	Lunch Break		
13:30 - 14:30		6. D.P. PUTRA 7. S. FATIMAH	16. C.C. HU 17. S.H. HSIEH	Optional Excursion
14:30 - 14:45		Coffee & Tea Break	Free time (conference excursion)	
14:45 - 17:15		8. G. S. LIOU 9. J.C. CHEN 10. L. WU		
17:15 - 18:30		Poster Session Time		
18:30 - 20:30			Conference Banquet (Approx. 2 hrs)	
20:30 - 21:30	Reception			

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Presentation List (No. 2 Meeting Room)

	SUN, 12/20	MON, 12/21	TUE, 12/22	WED, 12/23
9:30 – 10:30	Staff Meeting	1. H. FUJIMORI 2. A.Y. LO	11. W.H. LI 12. P. LI	N/A
10:30 – 10:45		Coffee & Tea Break		
10:45 – 12:15		3. A.T. WU 4. C.Y. LIU 5. I. KAGOMIYA	13. K.CF LEUNG 14. D.C. NIU 15. S.M. CHIAO	Wrap-up Discussion
12:15 – 13:30	Conference Registration	Lunch Break		
13:30 – 14:30		6. Reserved 7. Reserved	16. N. AOKI 17. Y. HAYASHI	Optional Excursion
14:30 – 14:45		Coffee & Tea Break	Free time (conference excursion)	
14:45 – 17:15		N/A		
17:15 – 18:30	Poster Session Time			
18:30 – 20:30		Conference Banquet (Approx. 2 hrs)		
20:30 – 21:30	Reception			

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Presentations for GREEN 2015

MONDAY 12/21

LIST No 1

1. Development and Applications of Bulk Metallic Glasses and Metallic Glass Thin Films (J. SC JANG)
2. Microstructure Evolution and Annealing Behavior of 6061 Al Alloy Deformed by Differential Speed Rolling (I.P. WIDIANTARA)
3. Graphene oxide and oxidized wood-derived nanocarbons as water-based lubricating additives (H. KINOSHITA)
4. Complexing Agents as Electrolyte Additive in Surface Treatment of 6061 Al Alloy via Plasma Electrolytic Oxidation (M.P. KAMIL)
5. Superconcentrated electrolytes for lithium batteries (Y. YAMADA)
6. Microstructure Evolution of High-carbon Steel Processed by Sub-zero Treatment (D.P. PUTRA)
7. Combination of Different Speed Rolling and Plasma Electrolytic Oxidation Coating of 6061 Al Alloy (S. FATIMAH)
8. Design and Preparation of Functional High-Performance Polymers for Optoelectronic Applications (G.S. LIOU)
9. Novel polybenzimidazoles containing bulky substituents and ether linkages for high-temperature proton exchange membrane fuel cell applications (J.C. CHEN)

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10. On the relationship between interfacial degradation of thermal barrier coatings and substrate chemistry (L. WU)

LIST No 2

1. Polymerizable Complex Synthesis of Lead-Free Ferroelectric Ba-doped Sodium Bismuth Titanate Suppressing Evaporation of Sodium and Bismuth and Variation of Morphotropic Phase Boundary with the Bi Deficiency (H. FUJIMORI)
2. Study of Pt-Ru-Sn alloy as anode electrocatalyst for bio-achol fuel cell (A.Y. LO)
3. Graded nanocrystalline structure in SiGe for Photovoltaic (A.T. WU)
4. Hybrid materials for optoelectronic applications: from micro/nano materials to organic/inorganic based device (C.Y. LIU)
5. Effects of NiO-YSZ composition difference between anode functional layer and anode-support on SOFCs performance (I. KAGOMIYA)
6. Reserved
7. Reserved

TUESDAY 12/22

LIST No 1

11. TBA (T.S. KIM)

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12. Low temperature synthesis of thermoelectric materials and their properties (C.J. LIU)
13. Electrochemistry of LiOH in Molten Salt for Lithium-Hydrogen Energy Cycle (Y. SATO)
14. Recent development in low characteristic temperature high optical quality glass and its applications (F.B. WU)
15. On the Mechanism and Mitigation of Volcanic Ash Attack on YSZ Thermal Barrier Coatings by Sol-gel based Approaches (C.H. CHU)
16. Alkaline tantalates with different structural features for photocatalytic water splitting reaction (C.C. HU)
17. Surface modifications of carbon materials for the fabrication of highly stable lead-carbon interface (S.H. HSIEH)

LIST No 2

11. Magnetism in nanoparticles - a behavior of electronic charge redistribution (W.H. LI)
12. Amphiphilic Core-Shell Particles for Biomedical Applications (P. LI)
13. Noble Metal-Iron Oxide Hybrid Materials for Biomedical Applications (K. CF LEUNG)

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- 14. Design, Synthesis and Biomedical Application of Hierarchical Mesoporous Silica Nanoparticles (D.C. NIU)
- 15. Polypropylene and Biodegradable Polymer Blend (S.M. CHIAO)
- 16. Pluripotent stem molecule using C60 fullerene for green electronics (N. AOKI)
- 17. Dry-spun carbon nanotube yarns for the next generation of energy-efficient devices toward achieving a low-carbon society (Y. HAYASHI)

WEDNESDAY 12/23

LIST No 1

- 18. The current status and applications of LTO anode materials for lithium batteries (C.Z. LU)
- 19. Recent Progress toward Highly Thermally Stable Bulk Heterojunction Polymer Solar Cells (L.Y. WANG)

POSTER SESSION

- P1. Preparation of graphene oxide/silicone composites and characterization of thermal and electrical properties (H. TAKAHASHI)
- P2. Effect of Sodium Benzoate on Corrosion Behavior of 6061 Al Alloy Processed by Plasma Electrolytic Oxidation (J.H. KWON)

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- P3. Low Temperature Sintering Behavior of Al₂O₃ Dielectric Ceramic with CuO-TiO₂-Nb₂O₅ Additive (K. SHIGENO)
- P4. Insights into Morphological Stability of P3HT: PCBM Bulk Heterojunction System (R. RAJA)
- P5. Development of Flow Synthesis Method of Manganese-Graphene Nanocomposites and Expansion of the Supercapacitor (T. KUBO)
- P6. Improve Performance of Organometal halide Perovskite Solar Cells by Interface Engineering (Y.C. SHIH)
- P7. The Effect of Stabilization Behavior on Microstructure and Mechanical Properties of High Carbon Steel via Sub-zero Treatment (Y.H. LEE)