Message from the organizers

Dear Colleagues and Friends,

2017 Global Research Efforts on Energy and Nanomaterials (GREEN 2017) will be held in Taipei, Taiwan during December 21–24 2017.

GREEN is being held every year and intends 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 2017. Your active participation is the key to the success of this conference.

Yours Sincerely,
GREEN 2017 Committee
Asia Pacific Society for Materials Science (APSMR)

www.apsmr.org
Conference organizing committee

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Prof. Takeshi TOYAMA (NIHON University)

Prof. Jinwoo LEE (Pohang University of Science and Technology (POSTECH))

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Prof. Masanao ERA (Saga University)

Prof. Ken-ichi HINO (University of Tsukuba)

Prof. Jia-Ming LIU (University of California, Los Angeles)

Prof. Toyo Kazu YAMADA (Chiba University)

Prof. Wook JO (Ulsan National Institute of Science and Technology)

Continue to next page..........
Conference organizing committee (Continued from previous section)

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Prof. Chan Beum PARK (Korea Advanced Institute of Science and Technology (KAIST))

CONFERENCE PROGRAM DIRECTORS
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Ms. Yangjun HU (APSMR)

CONFERENCE SPONSOR
Looptherm Technology Co., Ltd
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

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<th>Time</th>
<th>THU, 12/21</th>
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<td>Pre-session technical and discussion forums</td>
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# Presentation List (No. 205 Meeting Room)

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2. A. IIZUKA  
12. J. YAMANAKA  
13. T.W. PI | | |
| 10:20 – 10:30 | | | Coffee & Tea Break | |
| 10:30 – 12:00 | 3. S.C. PILLAI  
4. S. SHARMA  
5. K. KURIMOTO | | 14. J.S. LEE  
15. W.L. YUAN  
16. T.K. YAMADA | |
| 12:10 – 13:00 | | Lunch Break | | |
| 13:10 – 14:40 | 6. K. NAGAOKA  
7. H.C.D. CHUA  
8. Y. IWAMOTO | | 17. C.C. CHIU  
18. S.H. LEE  
19. H. TAKEDA | |
| 14:40 – 14:50 | | Coffee & Tea Break | | Optional Excursion |
10. T. SOGA  
11. N. SONOYAMA | | 20. C.K. CHEN  
21. C.F. CHEN | |
| 15:50 – 16:30 | | | Poster Session | |
| 16:30 – 17:00 | Conference Registration | | | |
| 18:00 – 19:30 | Conference Reception | | Conference Banquet (Approx. 1.5 hrs) | |
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Presentations for GREEN 2017

FRIDAY 12/22

Meeting Room No 205

1. Advanced Pyrene-Based Luminescent Materials (T. YAMATO)
2. Nature-inspired Design of Hybrid Nanomaterials for Artificial Photosynthesis (Y.S. NAM)
3. Highly Strain Tolerant and Tough Ceramic Composite by Incorporation of Graphene (A. KAWASAKI)
4. Resistive Change Memoy using Oxde Nanowires (K. TAKASE)
5. Synthesis of $\pi$-Extended Phenacenes by Photocyclization of Diarylethenes and Their Transistor Application (H. OKAMOTO)
6. Photocontroles of Acoustic Alignments of Supramolecular Nanofibers (A. TSUDA)
7. Photomechanical Properties of Aromatic Diimide Molecules (K. GOTO)
8. Time Changes of Emissions of VOCs from Commercial PVC Sheets under the Thermal Loading (M. NOGUCHI)
9. Engineering thermoelectric materials: their high zTs and related phase equilibria (H.J. WU)
10. Pseudogap Engineering of Fe2VAI Heusler Compounds for Automotive Thermoelectric Applications (Y. NISHINO)
11. Chemical State Analysis of Solid Photocatalysts (T. YOSHIDA)
Meeting Room No 204

1. Artificial Photosynthesis Using All-Solid-State Photocatalysts-Photocatalytic Conversion of CO2 by H2O as an Electron Donor (K. TERAMURA)
2. Environmental Remediation Agent Derived from Concrete Waste (A. IIZUKA)
3. Key Note Address: Nano-photocatalysts: Perspectives and New Insights (S.C. PILLAI)
5. Photo-rechargeable Organic-Molecule/Air Battery (K. KURIMOTO)
6. Tailored Catalysts for Synthesis and Decomposition of Ammonia as Hydrogen Carrier (K. NAGAOKA)
7. Design and Engineering 1d2d Materials for Clean Energy; such as Supercapacitors (H.C.D. CHUA)
8. Chemical Formation of Ceramic-based Materials through Polymer-derived Ceramics Route (Y. IWAMOTO)
9. 2D Materials for Wearable and Bio-electronic applications (J.H. AHN)
10. Solution-processed organic solar cells using multi-component materials (T. SOGA)
11. Self-assemble Electrode Materials for Lithium Battery (N. SONOYAMA)
Meeting Room No 202

1. Shaping the Next Generation Electronic Displays (J.L. CHEN)
2. Crystal growth of GeSn-based materials and its application for thin-film thermoelectric generators (M. KUROSAWA)
3. Direct Observation of Charge States in Perovskite Solar Cells using Electron Spin Resonance Spectroscopy (K. MARUMOTO)
4. THz Emission Spectroscopy of Topological Insulators (C.W. LUO)
5. Heterogeneous Integration for High Speed Digital Communication Systems (W.C. LO)
7. High Rate Growth Nanocrystalline Silicon Thin Film based Solar Cells using PECVD Method (Y. SOBAJIMA)
8. Surface Modification for Biomaterials (K. OYA)
9. Lead Halide-based Perovskites as Photonic Material (M. ERA)
10. Colloidal Quantum Dot and Its Application on Optoelectronic Devices (C.C. LIN)
11. High-performance Graphene Oxide Nanocomposite Membranes for Energy Device and Water Treatment (S.J. LUE)

SATURDAY 12/23

Meeting Room No 205
12. Applications of Bismuth Vanadate with rGO for Improvement of Photocatalytic Degradation and PEC Water Splitting Performance (B.K. LEE)

13. Visible-light Driven Carbon Dioxide Utilization with Biocatalyst and Dye Molecule Hybrid System (Y. AMAO)

14. Blue Hazards and a Resolution based on Candlelight OLED (J.H. JOU)

15. Biomimetic on-surface Synthesis of Graphene Nanoribbons (H. SAKAGUCHI)

16. Relation of Thin-Film Growth with defect Generation in High Efficiency Cu(In,Ga)Se2 based Solar Cells (T. SAKURAI)

Meeting Room No 204

12. Revaluation of Conventional TEM Techniques and Introduction of New STEM Methods for Materials Science without using Top-end Microscopes (J. YAMANAKA)


14. Synthesis and Functionalization of Bimetallic Plasmonic Nanoparticles for Bioanalytical and Catalytic Applications (J.S. LEE)

15. Fluorescent Carbon Nanodots Prepared from Furan-Derived Compounds (W.L. YUAN)

16. STM Single Molecule Architecting (T.K. YAMADA)
17. Accessing of the Structural, Mechanical and Phase Properties of Biomimetic Ion Pair Amphiphile Bilayers via Molecular Simulations (C.C. CHIU)
18. Coupling Photocatalysis with Biocatalytic Redox Transformations toward Artificial Photosynthesis (S.H. LEE)
19. Materials for High Temperature Piezoelectric Sensors (H. TAKEDA)
20. Intergranular Cracking Resistant of Austenitic Stainless Steel Stress by Grain-Boundary-Engineering with Engineering Aspects (C.K. CHEN)
21. Nonlinear Geometrical Responses of Prestressed Plate bossed with Piezoelectric Patches in Large Deflection (C.F. CHEN)

**Meeting Room No 202**

12. Selective Guest Recognition and Switching Functions of BODIPY and Its Analogs (T. NABESHIMA)
13. Polymer Gel Monolith for Biomimetic Reactor (Y. MIURA)
15. Reserved (J.W. LEE)
16. Emerging Photovoltaic Devices for Low-Power Indoor Applications (F.C. CHEN)

**POSTER SESSION**
P1. High efficient silylation of dinitrogen by using homogeneous mononuclear Co complexes (Y. TAKEMOTO)

P2. Development of microbe sensing material using functional group-specific siderophore-iron complexes-modified electrode (S. ENDO)

P3. Lead bromide-based layered perovskite quantum well LB films for cavity polariton laser (H. ERA)


P5. Growth process and electronic strucures of crown ether ultrathin films by means of STM and UPS (R. NEMOTO)

P6. STM study of magnetic ultrathin films (K. KOBAYASHI)

P7. Inducing multiferroic properties in psudo-cubic nickel ferrite through a forced oxygen deficiency (J.H. CHO)

P8. Microstructure alignment of BNKT22 ceramics by using Template Grain Growth method (W.S. KANG)

P9. Virus-enabled Biomineralization of Ligand-free Palladium Colloidal Nanocatalysts (I. KIM)
P10. Phase diagram of Bi-Cu-Te and Thermoelectric properties of Cu doped Bi2Te3 alloys (W.T. YEN)

P11. Solution-processable carbazole based molecular host for efficient phosphorescent organic light emitting diodes (S. SAHHO)

P12. Influence of Na on the material properties of cast Al-Si-Cu alloy (N. SAHARA)

P13. Mechanical properties of titanium based bulk metal glass (T. SHIGEOKA)

P14. Mechanical properties of long carbon fiber reinforced thermoplastic plates (Y. TSUCHIYA)

P15. Machinability of new cutting tools for hardened SKD11 (R. KONDO & L.L. YANG)

P16. Mechanical properties of the hot stamping carbon steels (L.L. YANG)

P17. Novel hollow-MnO2/carbon nanofiber composites for Li-ion battery electrode materials (D. LIU)

P18. Wave absorption property analysis of Ni0.3Zn0.3Cu0.4Fe2O4 nanopowder fabricated by Sol-Gel process (S.W. YANG)

SUNDAY 12/24

Meeting Room No 202

22. Syntheses and Host-Guest Properties of Functionalized Cyclophanes (O. HAYASHIDA)

23. A Practical Approach to Estimate the State-of-Charge and the State-of-Health of Lithium Ion Batteries (M.L.F. NG)

24. Graphene Enabled Energy Devices (Y.P. HSIEH)

25. Fabrication and Control of Atom Switch by Atom Manipulation (E. INAMI)

26. Reserved (W. JO)