

GOLDEN ACADEMY

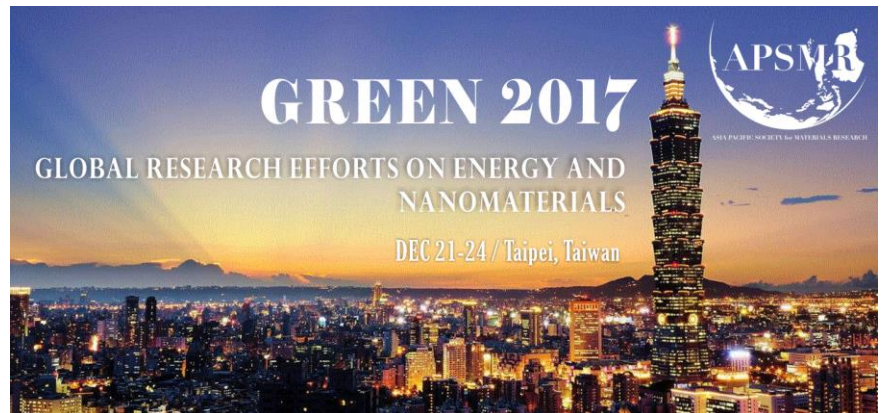
Message from the organizers

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



GOLDEN ACADEMY

Conference organizing committee

CONFERENCE CHAIRS

Prof. Akira KAWASAKI (Tohoku University)

Prof. Takeshi TOYAMA (NIHON University)

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

Prof. Yoshiaki NAKAMURA (Osaka University)

Prof. Byeong-Kyu LEE (University of Ulsan)

Prof. Yutaka AMAO (Osaka City University)

Prof. Akihiro YAMASAKI (Seikei University)

Prof. Masaki TANEMURA (Nagoya Institute of Technology)

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.....



GOLDEN ACADEMY

Conference organizing committee (Continued from previous section)

CONFERENCE CHAIRS

Prof. Takehiko YAMATO (Saga University)

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

CONFERENCE PROGRAM DIRECTORS

Dr. Yingxue SONG (APSMR)

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

CONFERENCE EXECUTIVE SECRETARY

Prof. Shih-Chieh HSU (Tamkang University)

CONFERENCE SECRETARIAT

Ms. Yaru WU (APSMR)

Ms. Yangjun HU (APSMR)

CONFERENCE SPONSOR

Looptherm Technology Co., Ltd



GOLDEN ACADEMY

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**

	THU, 12/21	FRI, 12/22	SAT, 12/23	SUN, 12/24
9:00 – 10:20	Pre-session technical and discussion forums	Oral Presentation		
10:20 – 10:30		Coffee & Tea Break		
10:30 – 12:00		Oral Presentation		
12:10 – 13:00		Lunch Break		Optional Excursion
13:10 – 14:40		Oral Presentation		
14:40 – 14:50		Coffee & Tea Break		
14:50 – 15:50		Oral Presentation	Oral Presentation	
15:50 – 16:30			Poster Session	
16:30 – 17:00		Conference Registration		
18:00 – 19:30	Conference Reception		Conference Banquet (Approx. 1.5 hrs)	

GOLDEN ACADEMY

Presentation List (No. 205 Meeting Room)

	THU, 12/21	FRI, 12/22	SAT, 12/23	SUN, 12/24
9:00 – 10:20	Pre-session technical and discussion forums	1. T. YAMATO 2. Y.S. NAM	12. B.K. LEE 13. Y. AMAO	
10:20 – 10:30		Coffee & Tea Break		
10:30 – 12:00		3. A. KAWASAKI 4. K. TAKASE 5. H. OKAMOTO	14. J. H. JOU 15. H. SAKAGUCHI 16. T. SAKURAI	
12:10 – 13:00		Lunch Break		Optional Excursion
13:10 – 14:40		6. A. TSUDA 7. K. GOTO 8. M. NOGUCHI		
14:40 – 14:50		Coffee & Tea Break		
14:50 – 15:50		9. H.J. WU 10. Y. NISHINO 11. T. YOSHIDA		
15:50 – 16:30			Poster Session	
16:30 – 17:00	Conference Registration			
18:00 – 19:30	Conference Reception		Conference Banquet (Approx. 1.5 hrs)	

GOLDEN ACADEMY

Presentation List (No. 204 Meeting Room)

	THU, 12/21	FRI, 12/22	SAT, 12/23	SUN, 12/24
9:00 – 10:20	Pre-session technical and discussion forums	1. K. TERAMURA 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		Optional Excursion
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		
14:50 – 15:50		9. J.H. AHN 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)	

GOLDEN ACADEMY

Presentation List (No. 202 Meeting Room)

	THU, 12/21	FRI, 12/22	SAT, 12/23	SUN, 12/24
9:00 – 10:20	Pre-session technical and discussion forums	1. J.L. CHEN 2. M. KUROSAWA	12. T. NABESHIMA 13. Y. MIURA	22. O. HAYASHIDA 23. M.L. NG
10:20 – 10:30		Coffee & Tea Break		
10:30 – 12:00		3. K. MARUMOTO 4. C.W. LUO 5. W.C. LO	14. J. KUWABARA 15. J.W. LEE 16. F.C. CHEN	24. Y.P. HSIEH 25. E. INAMI 26. W. JO
12:10 – 13:00		Lunch Break		Optional Excursion
13:10 – 14:40		6. K. WATANABE 7. Y. SOBAJIMA 8. K. OYA		
14:40 – 14:50		Coffee & Tea Break		
14:50 – 15:50		9. M. ERA 10. C.C. LIN 11. S.J. LUE		
15:50 – 16:30			Poster Session	
16:30 – 17:00	Conference Registration			
18:00 – 19:30	Conference Reception		Conference Banquet (Approx. 1.5 hrs)	

GOLDEN ACADEMY

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 Memory using Oxide Nanowires (K. TAKASE)
5. Synthesis of π -Extended Phenacenes by Photocyclization of Diarylethenes and Their Transistor Application (H. OKAMOTO)
6. Photocontrols 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 Fe₂VAl Heusler Compounds for Automotive Thermoelectric Applications (Y. NISHINO)
11. Chemical State Analysis of Solid Photocatalysts (T. YOSHIDA)

GOLDEN ACADEMY

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)
4. Joule Heat Induced Synthesis and Nano-Soldering of Carbon Nanotubes in Insitu TEM (S. SHARMA)
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)

GOLDEN ACADEMY

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)
6. A Versatile Thermal Conductivity Measurement of Free-Standing Nanowire Array Structures using Embedding Organic Material Films (K. WATANABE)
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

GOLDEN ACADEMY

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)
13. Detailed Understanding of the Atomic-Layer Deposited Dielectric Oxides and III-V and Ge Interfaces: A Synchrotron Radiation Photoemission Study (T.W. PI)
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)

GOLDEN ACADEMY

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. I I IPolymer Gel Monolith for Biomimetic Reactor (Y. MIURA)
14. Direct Arylation Polycondensation: Facile Synthetic Approach to Organic Photovoltaic Materials (J. KUWABARA)
15. Reserved (J.W. LEE)
16. Emerging Photovoltaic Devices for Low-Power Indoor Applications (F.C. CHEN)

POSTER SESSION

GOLDEN ACADEMY

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)

P4. Electrically Controllable Spin States and ESR Spectroscopy in Single-Layer Graphene (K. MARUMOTO)

P5. Growth process and electronic structures 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 pseudo-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 Biom mineralization of Ligand-free Palladium Colloidal Nanocatalysts (I. KIM)

GOLDEN ACADEMY

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. SAHOO)

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 Ni_{0.3}Zn_{0.3}Cu_{0.4}Fe₂O₄ nanopowder fabricated by Sol-Gel process (S.W. YANG)

P19. Study on Crystal Structure and Magnetic Properties of Ba₄Co₂Fe₃₆O₆₀ by Sol-gel Method (K.P. JEONG)

GOLDEN ACADEMY

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)