

28 June to 03 July, 2015 in Singapore

8th International Conference on Materials for Advanced Technologies of
the Materials Research Society of Singapore & IUMRS – International Conference in Asia



Many prominent speakers, along with information-packed symposia will fill the conference program.
You are welcome to participate!

Plenary Speakers (Partial List)

1. Anthony K. Cheetham, FRS, University of Cambridge, UK
“Physical Properties of Metal-Organic Framework Materials”
2. John Dudley, President, European Physical Society, Université de Franche-Comté, France
“Unexpected Ultrafast – New Frontiers in the Physics and Applications of Ultrafast Optics”
3. Gérard Férey, Université de Versailles Saint Quentin en Yvelines, France
“From interesting to useful: the multiple richnesses of hybrid porous solids”
4. Michael Graetzel, Ecole Polytechnique Federale de Lausanne, Switzerland
“The advent of mesoscopic solar cells”
5. Vladimir M. Shalaev, Purdue University, USA
“Enabling nanophotonics, data storage and energy conversion with new plasmonic materials”
6. Subra Suresh, President, Carnegie Mellon University, USA
“Nano-crystals and Nano-twins”
7. Eli Yablonovitch, Electrical Engineering & Computer Sciences Dept., University of California, Berkeley, USA
“Conversion of Black Body Radiation to Electricity: Solar and non-Solar”

Theme Lectures

1. Dimitri N. Basov, University of California, San Diego, USA
“Nano-Photonic Phenomena in Atomically Thin Van Der Waals Crystals”
2. Klaus Kern, Max-Planck-Institute for Solid State Research, Stuttgart, Germany
“Controlling molecular functionality at surfaces”
3. Hideo Ohno, Tohoku University, Sendai, Japan
“Spintronics for Stand-by Power Free VLSI”
4. Peidong Yang, University of California, Berkeley, USA
“Semiconductor nanowires for energy conversion”

Abstract

Submission

Opens 19 Sep 2014

Closes 23 Jan 2015

Contact & Enquiries

Secretariat

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ICMAT2015 & IUMRS-ICA2015 Symposia List

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& IUMRS International Conference in Asia
28 June to 03 July 2015, SUNTEC Singapore
www.mrs.org.sg/icmat2015

Energy & Energy Storage

- A.** [Advances in Energy Storage Systems : Lithium Batteries, Supercapacitors and Beyond](#) – Palani Balaya (NUS, Singapore), Lee Pooi See (NTU, Singapore), Ilias Belharouak (USA), Mickaël Dollé (Canada), Shinichi Komaba (Japan)
- B.** [Earth Abundant Materials for Solar Energy Harvesting](#) – Goutam Kumar Dalapati (IMRE, Singapore), Liu Bin (NTU, Singapore), Samit K. Ray (India), Andriy Zakutayev (USA), Chen Haoming (Taiwan)
- C.** [Solar PV \(Photovoltaics\) Materials, Manufacturing and Reliability](#) – Arief Budiman (SUTD, Singapore), Andrew Tay (NUS, Singapore), Reinhold Dauskardt (USA), Alexander Caldwell (USA), Armin Aberle (SERIS-NUS, Singapore)
- D.** [Membranes for Clean Water, Clean Energy and Life Science](#) – Neal Tai-Shung Chung (NUS, Singapore), Pramoda Kumari Pallathadka (IMRE, Singapore), Glenn Lipscomb (USA), Suzana P. Nunes (Saudi Arabia), Hideto Matsuyama (Japan)

Photonics Global Conference

- E.** [Fiber-Based Technologies and Applications](#) – Yoo Seongwoo (NTU, Singapore), Kyonghwan Oh (South Korea), Mandy Yu Xia (SIMTech, Singapore)
- F.** [Emerging Infrared Technologies and Applications](#) – Jerome Faist (Switzerland), Wang Qijie (NTU, Singapore), Zhang Yan (China), Zhang Dao Hua (NTU, Singapore)
- G.** [Biophotonics and Optical Biomedicine](#) – Liu Linbo (NTU, Singapore), Chen Nanguang (NUS, Singapore)
- H.** [Optical Communications \(OC\) Symposium](#) – Changyuan Yu (NUS, Singapore), Wende Zhong (NTU, Singapore), Chao Lu (Hong Kong), Weisheng Hu (China)

Optical/Photonics

- I.** [Optical Properties of Two-Dimensional Heterostructures from THz to X-ray](#) – Elbert Chia (NTU, Singapore), Antonio H Castro Neto (NUS, Singapore), Sun Handong (NTU, Singapore), Jian-Xin Zhu (USA)
- J.** [Metal Oxides Meet Carbon: Synthesis, Assembly, Properties and Applications](#) – Yang Hui Ying (SUTD, Singapore), Fan Hongjin (NTU, Singapore), Joel Yang (SUTD, Singapore), Liangti Qu (China)
- K.** [Resonant Dielectric, Semiconductor and Metallic Nanostructures](#) – Boris Lukyanchuk (DSI, Singapore), Mark Brongersma (USA), Yuri Kivshar (Australia), Lukas Novotny (Switzerland), Arseniy Kuznetsov (DSI, Singapore)

Polymers/Biomaterials

- L.** [Polymer Nanocomposites Functional Organic-Inorganic Hybrids](#) – Hu Xiao (NTU, Singapore), Yiu Wing Mai (Australia), Robert J. Young (UK)
- M.** [Advanced Nano and Polymeric Materials for Biological and Health Care Applications](#) – Subramanian Tamil Selvan (IMRE, Singapore), Li Jun (NUS, Singapore), Wolfgang Parak (Germany), S. Balakumar (India), Yoshihiro Ito (Japan)
- N.** [Molecular Biomimetic Materials – Characterization, Chemistry and Self-Assembly](#) – Ali Miserez (NTU, Singapore), Shawn Hoon (BMSI, Singapore), Admir Masic (Germany), James Weaver (USA)

Nanomaterials and Devices

- O.** [Nanoelectrochemistry](#) – Huang Yizhong (NTU, Singapore), Daniel Mandler (Israel), Zhou Kun (NTU, Singapore), Frank Marken (UK), Ken Ozoemena (South Africa)
- P.** [Semiconductor Lighting and Displays](#) – Hilmi Volkan Demir (NTU, Singapore), Steve P. Danbaars (USA), Martin Dawson (UK), Tan Swee Tiam (NTU, Singapore), Sun Xiao Wei (NTU, Singapore)
- Q.** [Novel Materials in Heterogeneous Catalysis](#) – Yan Ning (NUS, Singapore), Kawai Sibudjing (NUS, Singapore), Zhong Ziyi (ICES, Singapore), Song Chunshan (USA), Li Yongdan (China)
- R.** [Novel Solution Processes for Advanced Functional Materials](#) – K. Byrappa (India), Tan Mei Chee (SUTD, Singapore), Kohei Soga (Japan), Sanjay Mathur (Germany)
- S.** [Computational Materials Science and Engineering](#) – Ng Teng Yong (NTU, Singapore), Pinaki Sengupta (NTU, Singapore), Liu Zishun (China), Warren Pickett (USA), Nimal Rajapakse (Canada)
- T.** [Nanodevices & Nanofabrication](#) – Zhang Qing (NTU, Singapore), Bill Milne (UK), Yonhua Tommy Tzeng (Taiwan)



China Town – Singapore



Marina Bay Gardens - Singapore

Functional Materials

- U.** [Functional pi-Systems, Materials and Devices](#) – Wu Jishan (NUS, Singapore), Zhang Jie (IMRE, Singapore), Hiroshi Shinokubo (Japan), Xinliang Feng (Germany), Raymond Wai Yeung Wong (Hong Kong)
- V.** [Science and Applications of Oxides in Electronics, Energy and Health](#) – T. Venkatesan (NUS, Singapore), A. Ariando (NUS, Singapore), Andrea Cavalleri (Germany), Yang Shao-Horn (USA)
- W.** [III-V compound semiconductor integration with Silicon](#) – Chua Soo Jin (NUS, Singapore), Fitzgerald Eugene (MIT, Singapore), Jean Fompeyrine (Switzerland), Yasushi Nanishi (Japan)
- X.** [Magnetic and Spintronic Materials](#) – S.N. Piramanayagam (DSI, Singapore), Ding Jun (NUS, Singapore), Raju V. Ramanujan (NTU, Singapore), Jian Ping Wang (USA), Russell Cowburn (UK)
- Y.** [Reliability and Variability of Devices for Circuits and Systems \[RV-DCS\]](#) – Tan Cher Ming (NTU, Singapore), Zhou Xing (NTU, Singapore), Asen Asenov (UK), Ulf Schlichtmann (Germany), Hei Wong (Hong Kong)
- Z.** [Surfaces/Interfaces Modification by Molecules](#) – Cedric Troadec (IMRE, Singapore), M.P. Srinivasan (NUS, Singapore), David Cahen (Israel), Karen Kavenagh (Canada)
- AA.** [Nanoceramics and Nanohybrids for Energy, Environment and Health](#) – John Wang (NUS, Singapore), Xu Li (IMRE, Singapore), Dairong Chen (China), Federico Rosei (Canada), Jerome Claverie (Canada)
- BB.** [Synthesis and Architecture of Nanomaterials](#) – Dan Zhao (NUS, Singapore), Jianping Xie (NUS, Singapore), Hong Yang (USA), Martin Schroder (UK), Guodong Qian (China)
- CC.** [Functional Spin-Orbit Coupling Materials](#) – Hsin Lin (NUS, Singapore), Feng Yuan Ping (NUS, Singapore), Arun Bansil (USA), Oliver Rader (Germany), Vidya Madhavan (USA)
- DD.** [Biohybrid NanoMaterials - Design and Applications](#) – Yung Lin Yue, Larry (NUS, Singapore), Nguyen T. K. Thanh (UK), Su Xiaodi (IMRE, Singapore), Bing Song (UK)
- EE.** [Laser Cooling of Solids and Optical Refrigeration](#) – Qihua Xiong (NTU, Singapore), Christian Kloc (NTU, Singapore), Mansoor Sheik-Bahae (USA), Denis Seletskiy (Germany)

Others

- FF.** [Technology-Enabled Education in Materials Science & Engineering](#) – Tim White (NTU, Singapore), John Baglin (USA), Lee Adrian Michael (NUS, Singapore), Long Yi (NTU, Singapore)
- GG.** [Asia Pacific Academy of Materials \(APAM\) Symposium on Asian Priorities in Materials Development](#) – B.V.R. Chowdari (NUS, Singapore), Hwang Huey Liang (China), Hideomi Koinuma, (Japan)