Encouraged by the success of the International Conference on Materials for Advanced Technologies (ICMAT) series held since 2001 and the impact it has created among the materials science and engineering research community both in the region and elsewhere, the Materials Research Society of Singapore (MRS-S) will be organizing the 10th edition of the conference series from 23 to 28 June 2019 in Singapore.

The first 9 conferences in this biennial ICMAT series attracted more than 23,000 participants including 25 Nobel Laureates and hundreds of distinguished plenary & keynote speakers, in addition to thousands of invited speakers.

The upcoming 10th conference will have 45 technical symposia, 10 plenary lectures and several theme, keynote, invited, contributed oral and poster presentations with the expected participation of 3,500 delegates internationally.

One of the largest conferences of its kind, each and every edition of this series has proved to be a premier scientific platform for both local and international materials scientists, engineers and technologists to share their expertise and knowledge.

We welcome you to join us at ICMAT 2019, to celebrate its 10th edition and our continuing efforts in advancing materials research.
PLENARY SPEAKERS

Hiroshi AMANO
Nagoya University, Japan
The Nobel Prize in Physics 2014

Guillermo C. BAZAN
University of California at Santa Barbara, USA

Federico CAPASSO
SEAS, Harvard University, USA

Andre GEIM
University of Manchester, UK
The Nobel Prize in Physics 2010

Prashant V. KAMAT
University of Notre Dame, USA

Stuart PARKIN
Max Planck Institute of Microstructure Physics, Germany

J. Fraser STODDART
Northwestern University, USA
The Nobel Prize in Chemistry 2016

Subra SURESH
Nanyang Technological University, Singapore

Klaus VON KLITZING
Max Planck Institute for Solid State Research, Germany
The Nobel Prize in Physics 1985

THEME SPEAKERS

Gerbrand CEDER
University of California at Berkeley, USA

Linda F. NAZAR
University of Waterloo, Canada

Christopher SCHUH
Massachusetts Institute of Technology, USA

Dongyuan ZHAO
Fudan University, China

~ for the latest list of speakers, please visit: icmat2019.mrs.org.sg ~
**CHARACTERIZATION**

A) Investigation of Materials at the Nanoscale using Electrons and X-rays  
*(Jointly organized with Australian MRS)*  
Yeng Ming Lam (S’pore), Joanne Etheridge (Australia),  
Steve Pennycook (S’pore), Chris Boothroyd (S’pore),  
Martial Duchamp (S’pore), Sara Sandin (S’pore)

B) Surface, Interface and Thin Film Growth  
Xuesen Wang (S’pore), Shijie Wang (S’pore),  
Bent Weber (S’pore), Haiming Guo (China),  
Jun-Ming Liu (China)

**PHOTONICS / OPTICAL MATERIALS**

C) Semiconductor Photonics  
*(Jointly organized with Australian MRS)*  
Dao Hua Zhang (S’pore), C. Jagadish (Australia),  
Stephen Sweeney (UK), Boon S. Ooi (Saudi Arabia),  
Hao Gong (S’pore), Weijun Fan (S’pore)

D) Optically Resonant Nanostructures  
Arseniy Kuznetsov (S’pore), Boris Luk’yanchuk (S’pore),  
Yuri Kivshar (Australia), Mark Brongersma (USA),  
Nikolay Zheludev (UK)

E) Applications of Soft and Nonlinear Materials in Electronics and Optics  
Eng Huat Kho (S’pore), Yanjun Liu (China),  
Ai Qun Liu (S’pore), Din Ping Tsai (Taiwan),  
Aaron Danner (S’pore)

**ELECTRONIC MATERIALS**

F) Magnetic and Spintronic Materials and Devices  
S. N. Piramanayagam (S’pore), Jun Ding (S’pore),  
Anjan Soumyanarayanan (S’pore),  
Victorino Franco (Spain), Pallavi Dhagat (USA)

G) Progress and Challenges in Molecular Electronics II  
Christian Albertus Nijhuis (S’pore), Nikodem Tomczak (S’pore),  
Herre van der Zant (The Netherlands),  
Daniel Frisbie (USA), Damien Thompson (Ireland)

H) Organic Electronics  
Lay Lay Chua (S’pore), Peter Ho (S’pore),  
Jana Zaumseil (Germany), Jianpu Wang (China)

**BIOMATERIALS**

I) Stimuli Sensitive and Responsive Polymer Biomaterials  
Terry Steele (S’pore), Jing Yu (S’pore),  
Harm-Anton Klok (Switzerland),  
Kandalam V Ramanujachary (USA),  
Xavier Banquy (Canada)

J) Micro/nano-technology for Drug Delivery and Imaging  
Chenjie Xu (S’pore), Michinao Hashimoto (S’pore),  
Chester Drum (S’pore), Jane Wang (Taiwan),  
Lifeng Kang (Australia)

K) Delivery Systems for Biomedical and Consumer Care Applications  
Mary Chan (S’pore), Thuy Tram Dang (S’pore),  
Alex van Herk (S’pore), Zhen Gu (USA),  
Dae-Hyeong Kim (South Korea)

L) Bio-derived Materials: From Fundamentals to Applications  
Sierin Lim (S’pore), Takafumi Ueno (Japan),  
Diannan Lu (China), Julie Champion (USA),  
David Paramelle (S’pore)
M) Biomechanics of Human Diseases: From Research to Applications
Chwee Teck Lim (S'pore), Ming Dao (USA),
Han Wei Hou (S'pore), Linhong Deng (China),
Igor V. Pivkin (Switzerland)

ENERGY MATERIALS
N) Towards Safe High Power Rechargeable Batteries
(Jointly organized with Chinese MRS)
Stefan Adams (S'pore), Qing Wang (S'pore),
Byoungwoo Kang (South Korea), Zhaoxin Wen (China),
A.J.Bhattacharyya (India), Sebastien Martinet (France)

O) Advances in Perovskite Materials: Photovoltaics, Optoelectronics and Frontier Phenomena
(In collaboration with Aseanian Conference on Nano-Hybrid Solar Cells)
Subodh Mhaisalkar (S'pore), Nripan Mathews (S'pore),
Songyuan Dai (China), Nam-Gyu Park (South Korea),
Tsutomu Miyasaka (Japan)

P) Advanced Inorganic Materials and Thin Film Technology for Solar Energy Harvesting and Electronic Application
Goutam Kumar Dalapati (S'pore), Lydia Helena Wong (S'pore),
Wladyslaw Walukiewicz (USA),
Alberto Vomiero (Sweden), Jung-Yong Lee (South Korea)

Q) Advanced Materials for Thermoelectrics
Kedar Hippalgaonkar (S'pore),
Alex, Qingyu Yan (S'pore), Xun Shi (China),
Kanishka Biswas (India), Jeffrey Snyder (USA)

R) Extreme PV: Materials & Design for Next Generation Solar PV (Photovoltaics) Systems
Arief Budiman (S'pore), Joel Li (S'pore),
Dauskartd Reinhold (USA), Shankar Sridhara (S'pore),
Armin Aberle (S'pore)

TECHNOLOGY
S) Innovations in Membrane Technology – Discovery, Process and Applications
Adil Minoo Dhalla (S'pore), Chakravarthy S. Gudipati (S'pore),
Neal, Tai Shung Chung (S'pore),
Dibakar Bhattacharyya (USA),
Luuk Rietveld (The Netherlands)

T) Stretchable Materials and Devices for Wearables and Robotics
Benjamin C. K. Tee (S'pore), Zhuangjian Liu (S'pore),
Pooi See Lee (S'pore), Tsuyoshi Sekitani (Japan),
Chwee Teck Lim (S'pore)

U) Materials and Devices for Harsh Environment
Chee Lip Gan (S'pore), Christopher A. Schuh (USA),
Francis Pressecq (France), Zehui Du (S'pore),
Qiang Guo (China)

V) Additive Manufacturing: From Fundamentals to Applications
Matteo Seita (S'pore), Yong-Wei Zhang (S'pore),
Jun Wei (S'pore), Kai Chen (China),
Christian Leinenbach (Switzerland),
John Lewandowski (USA)

W) Materials Life Cycle and Sustainability
Claude Guet (S'pore), Alex Qingyu Yan (S'pore),
Jean-Christophe P. Gabriel (France), Wanqin Jin (China),
Stéphane Pellet-Rostaing (France)

NANOMATERIALS
X) Von Hippel Award Symposium in Honour of Prof CNR Rao FRS
(Jointly organized with MRS)
B.V. R. Chowdari (S'pore), C. Jagadish (Australia),
Sean J. Hearne (USA), Mike Fitzsimmons (USA),
D. D. Sarma (India)

Y) Colloidal Nanoparticle-Based Probes and Sensors
(Jointly organized with MRS Japan)
Xiaodi Su (S'pore), Kaoru Tamada (Japan),
Yin Thai Chan (S'pore), Hedi Mattoussi (USA),
Nguyen T. K. Thanh (UK), Yang Xu (S'pore)

Z) Nanomaterials for Biointerfacial Science
Nam-Joon Cho (S'pore), Paul S. Weiss (USA), Gert Storm (The Netherlands),
Wolfgang Knoll (Austria), Katsuhiko Ariga (Japan)

AA) Sustainable Nanotechnology – Bringing Together Environment and Health Impacts and Novel Applications of Engineered Nanomaterials
Kee Woei Ng (S'pore), Philip Demokritou (USA),
Daniele Zink (S'pore), Julian McClements (USA),
Flemming Cassee (The Netherlands)
BB) 2D Materials and Heterostructures
Kuan Eng Johnson Goh (S’pore), Dongzhi Chi (S’pore),
Kah Wee Ang (S’pore), Le Lay Guy (France),
Artem Mishchenko (UK)

CC) Novel Solution Processing of Advanced
Functional Nanomaterials for Energy,
Environmental and Biomedical Applications
Yanli Zhao (S’pore), K. Byrappa (India),
Zheng Liu (S’pore), Sanjay Mathur (Germany),
Ajyan Vinnu (Australia)

FUNCTIONAL MATERIALS

DD) Advanced Composites and Hybrid
Materials for Structural and Functional
Applications
(Jointly organized with MRS Japan)
Xiao ‘Matthew’ Hu (S’pore), Sridhar Idapalapati
(S’pore), Atsushi Takahara (Japan), Yiu-Wing Mai
(Australia), Ton Peijs (UK), Stefanie FEIH (S’pore)

EE) Materials Design
(Jointly organized with Chinese MRS)
Yuan Ping Feng (S’pore), Yi Liu (China),
Haiqing Yin (China), Michael Sullivan (S’pore),
Tamio Oguchi (Japan), Martin L. Green (USA)

FF) Computational Advanced Material
Science and Application
Hua Li (S’pore), Fangsen Cui (S’pore),
Zishun Liu (China), Nimal Rajapakse (Canada),
Shantanu S. Mulay (India)

GG) Advanced Nanomaterials for Green
Energy and Environmental Applications
Ghim Wei Ho (S’pore), Hongjin Fan (S’pore),
Rong Xu (S’pore), Kazunari Domen (Japan)

HH) Functional pi-Systems, Materials and
Devices
Chunyan Chi (S’pore), Jishan Wu (S’pore),
Kazuo Takimiya (Japan), Juan Casado (Spain),
Dmitrii F. Perepichka (Canada)

II) Advanced Ceramics and Nanohybrids for
Energy, Environment and Healthcare
John Wang (S’pore), Xu Li (S’pore),
Jerome Claverie (Canada), Hong Liu (China),
Adrian Lowe (Australia)

JJ) Aggregation Induced Emission: Materials,
Mechanisms and Applications
Bin Liu (S’pore), Ben Zhong Tang (Hong Kong)

KK) Polarization-crucial Materials for Sensing,
Transduction and Energy
Kui Yao (S’pore), Andrew J. Bell (UK),
Thirumany Sritharan (S’pore), Vinay Gupta (India),
Geoff Brennecka (USA)

LL) Multifunctional Ceramics for EMI
Shielding and Materials for Tribological
Applications
Santiranjan Shannigrahi (S’pore),
Mohit Sharma (S’pore), K. N. Rozanov (Russia),
Jayashree Bijwe (India), Marina Y. Koledintseva (USA)

EDUCATION

MM) Educating and Mentoring Young Materials
Scientists for Career Development
Daniel Chua (S’pore), Federico Rosei (Canada),
John Baglin (USA), Eva Hemmer (Canada)
GENERAL INFORMATION

FORUMS

• Materials for Sustainability  
  Chair: Alexander J.B. Zehnder  
  Chair, Sustainable Earth Office,  
  Nanyang Technological University, Singapore

• Why so Few Women in Science & Technology?  
  Chair: Zee Upton  
  Executive Director (Covering),  
  Institute of Medical Biology, A*STAR, Singapore

• Young Researcher Forum  
  Chair: Evan L. WILLIAMS  
  Deputy Dept Head, Electronic Materials, Institute of Materials  
  Research & Engineering, Singapore

• Editors’ Forum  
  Chair: Andrew Wee  
  Vice President (University and Global Relations),  
  National University of Singapore, Singapore

IMPORTANT DATES

Abstract Submission Opens
>> 01 Sept 2018

Abstract Submission Closes
>> 31 Jan 2019

Acceptance Notification
>> from 15 Feb 2019

Registration Opens
>> 15 Feb 2019

Early Bird & Author Registration
>> 01 Apr 2019

MRS Research Society – Singapore (MRS-S) Funding Support
To help participants from developing countries, MRS-S has set aside funds, in the form of reduced registration fee or hostel accommodation for eligible participants. Please check the website for details.

REGISTRATION RATES (IN SINGAPORE DOLLARS)

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<td>MRS-S Member¹</td>
<td>SGD 900</td>
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¹ Members of the Material Research Society (Singapore)
² Members of the adhering bodies of IUMRS (refer to list at: https://tinyurl.com/ycagsn7)
³ Applicable to full-time students from any university (local & overseas). Proof of student status will be required at the time of registration.

REGISTRATION RATES (IN SINGAPORE DOLLARS)

• Fees listed do not include prevailing Goods & Services Tax (GST)
• Each registration is meant for ONE (01) participant to attend the conference only.
• Co-author(s) who are also attending the conference will need to register separately.
• Each registration entitles the registered participant to present up to TWO (02) Abstracts/Presentations.
• Registration fee includes a copy of the conference programme, daily tea break & lunch.
• Please refer to the website for details on registration terms & conditions, and cancellation policy.

CONFERENCE VENUE

MARINA BAY SANDS, SINGAPORE
Sands Expo & Convention Centre  
10 Bayfront Avenue,  
Singapore 018956

Contact  
Materials Research Society Singapore  
Tel : +65 6316 8919  
Email : info@mrs.org.sg

Secretariat  
INMEET CMS Pte Ltd  
Tel : +65 6900 7183  
Email : icmat2019@inmeetcms.com

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