

General Program of the Second World Materials Summit

Shilla Hotel, Suzhou

Monday, Oct. 12, 2009

- 08:00-22:00** **Registration** (Lobby, Shilla Hotel)
- 09:00-12:00** **Cultural Event** (Suzhou Garden)
Waiting at the Lobby of Shilla Hotel at 8:30.
- 12:00-13:30** **Lunch**
Location: S Restaurant, 4th Floor, Tower A, Shilla Hotel
- 14:00-17:00** **Technical Visit** (Suzhou Industrial Park)
Waiting at the Lobby of Shilla Hotel at 14:00.
- 17:30-19:00** **Welcome Reception**
Location: S Restaurant, 4th Floor, Tower A, Shilla Hotel
Chairs: Duan WENG, Qiang FENG
- Welcome Speech:** Leader of Suzhou Industrial Park
- Guest Speeches:**
B.V.R. CHOWDARI, First Vice-President of IUMRS and President of MRS-S
David GINLEY, Vice-President of MRS
Naoki KISHIMOTO, President of MRS-J
Jean Pierre PIERRAT, Scientific Attaché, French Consulate Shanghai
- 19:30-21:40** **Plenary Session I**
Location: Jasmine room, 4th Floor, Tower B, Shilla Hotel
Chairs: Hongjie LUO, Abdelilah SLAOUI
- 19:30-19:40 Welcome Address: **Hailing TU**, Vice-President of C-MRS
- 19:40-20:10 New Materials in the Advanced Powertrains-The Future of VW Electric Vehicles
Jörg HUSLAGE, Research Group Electrical Drives and Fuel Cells,
Volkswagen: AG, Wolfsburg, Germany
- 20:10-20:40 Material Innovation of Energy Storage for the Sustainable Transport and Recent Progress and Challenges of Hydrogen Fuel Cell Vehicles
Katsuhiko HIROSE, TOYOTA Motor Corporation, Tokyo, Japan
- 20:40-21:10 Chery Automobile Co., Ltd, China
- 21:10-21:40 Daimler Fuel Cells and the Development of Batteries of the Future
Florian FINSTERWALDER, Alternative Drives, Production Planning, Technologies and Concepts, Daimler AG, Stuttgart, Germany

Tuesday, Oct. 13, 2009

- 08:20-09:10** **Opening Ceremony**
Location: Jasmine room, 4th Floor, Tower B, Shilla Hotel
Chairs: Yong GAN; R.P. H CHANG
- 08:20-08:30 Introduction of VIP: **Yong GAN**, President of China Iron and Steel Research Institute Group, China
- 08:30-08:40 Welcome Address: **Kuangdi XU**, President of Chinese Academy of Engineering, Chairman of the Summit, China
- 08:40-08:50 Leader of MOST, China
- 08:50-08:55 **Changxu SHI**, Academician of CAS and CAE, China
- 08:55-09:00 **Congbin FU**, International Council for Science, Vice President of China Association of Science and Technology, China
- 09:00-09:05 **Boyun HUANG**, President of C-MRS
- 09:05-09:10 Leader of local government
- 09:10-09:40** **Coffee Break and Photography**
- 09:40-11:55** **Plenary Session II**
Location: Jasmine room, 4th Floor, Tower B, Shilla Hotel
Chairs: Boyun HUANG, Paul SIFFERT
- 09:40-10:10 Materials for Efficient Energy Production and Usage
Raymond Lee ORBACH, University of Texas at Austin, USA
- 10:10-10:40 Materials Studies in Low Carbon Energy
Liquan CHEN, Institute of Physics, CAS, China
- 10:40-11:10 Scientific issues for future nuclear energy
Claude GUET, Director of the office of the High Commissioner for Atomic Energy, France
- 11:10-11:40 Renewable Energy Materials Needs
Dan Eliab ARVIZU, National Renewable Energy Laboratory, USA
- 11:40-11:55 European Energy Policy and Its Application in Poland
Krzysztof KURZYDLOWSKI, University of Warsaw, Poland
- 12:00-13:30** **Lunch**
Location: S Restaurant, 4th Floor, Tower A, Shilla Hotel
- 14:00-16:00** **Technical Session 1—Solar Energy and Photovoltaic Cell Materials**
Location: Jasmine room, 4th Floor, Tower B, Shilla Hotel
Chairs: Shaoxiong ZHOU, David GINLEY

- 14:00-14:30 The Future of PV Industry & SG-Si Materials
Yuwen ZHAO, China Renewable Energy Society Photovoltaic Sub-society
- 14:30-15:00 **Martin GREEN**, The University of New South Wales, Australia
- 15:00-15:30 Advanced Thin Film Materials for Solar Cells: Challenges and Limitations
Daniel LINCOT, ENSCP, Paris, France + **Abdelilah SLAOUI**, CNRS, Institut d'Électronique du Solide et des Systèmes (INESS), Strasbourg, France
- 15:30-16:00 Photovoltaic Progress in Taiwan
Rongchang LIANG+Chorng-Jye HUANG, Del-Solar Co., Ltd. Taiwan, China
- 16:00-16:15 Coffee Break**
- 16:15-18:15 Technical Session 2—Nuclear Energy Materials**
Location: Jasmine room, 4th Floor, Tower B, Shilla Hotel
Chairs: Enhou HAN, Alan J. HURD
- 16:15-16:45 **Alan J. HURD+ Cetin Unal**, Los Alamos National Laboratory, USA
- 16:45-17:15 **Frédéric SCHUSTER**, Materials Program, Commissariat à l'Énergie Atomique (CEA), France
- 17:15-17:45 Nuclear Energy Materials
M. VIJAYALAKSHMI, India Gandhi Centre for Atomic Research, India
- 17:45-18:15 Emerging Materials Issues on Materials Safety and Reliability in Pressurized Water Nuclear Reactor
Enhou HAN, Institute of Metal Research, China
- 18:30 Banquet** (*waiting at the lobby of Shilla Hotel at 18:30*)

Wednesday, Oct. 14, 2009

- 08:00-10:00 Technical Session 3—Hydrogen Energy Related Materials and Fuel Cell**
Location: Jasmine room, 4th Floor, Tower B, Shilla Hotel
Chair: Lijun JIANG, Mildred DRESSELHAUS
- 08:00-08:30 Materials Related to Hydrogen Production and Hydrogen Utilization in Fuel Cell
Liejun GUO, Xi'an Jiaotong University, China
- 08:30-09:00 Materials Challenges for Solid Oxide Fuel Cells
Subhash C. SINGHAL, Pacific Northwest National Laboratory, USA
- 09:00-09:30 Hydrogen Storage in Nanoporous Materials
Michael HIRSCHER, Max-Planck-Institut für Metallforschung, Germany
- 09:30-10:00 Hydrogen as a Future Energy Carrier
Andreas ZÜTTEL, EMPA Materials Sciences & Technology, Switzerland
- 10:00-10:15 Coffee Break**

- 10:15-11:45** **Technical Session 4—Large Scale Energy Storage & Batteries**
Location: *Jasmine room, 4th Floor, Tower B, Shilla Hotel*
Chairs: Xuejie HUANG, George CRABTREE
- 10:15-10:45 Progress on Key Materials of Redox Flow Battery for Energy Storage
Huaming ZHANG, Dalian Institute of Chemical Physics, Chinese Academy of Sciences
- 10:45-11:15 Materials Challenges for Sustainable Energy
George CRABTREE, Argonne National Laboratory
- 11:15-11:45 **Michel ARMAND**, University Picardie, France
- 12:00-13:30** **Lunch**
Location: *S Restaurant, 4th Floor, Tower A, Shilla Hotel*
- 14:00-16:00** **Technical Session 5—Materials for Bioenergy**
Location: *Jasmine room, 4th Floor, Tower B, Shilla Hotel*
Chair: *Tianwei TAN, Mike CLEARY*
- 14:00-14:30 Recent Development of Biorefinery in China
Tianwei TAN, Beijing University of Chemical Technology
- 14:30-15:00 **Michael F. CHRISTIANSEN**, Novozymes in Asia-Pacific, Switzerland
- 15:00-15:30 State of the Art of Biomass Liquid Fuel in China
Guojun YUE, COFCO Limited
- 15:30-16:00 **Jay KEASLING**, The Joint BioEnergy Institute (JBEI)
- 16:00-16:15** **Coffee Break**
- 16:15-17:45** **Technical Session 6—Alternative Energy Sources & Transmission**
Location: *Jasmine room, 4th Floor, Tower B, Shilla Hotel*
Chairs: *Duan WENG, Hanns-Ulrich HABERMEIER*
- 16:15-16:45 Light Weight Vehicles through Advanced Materials
Robert F. SINGER, University of Erlangen, Germany
- 16:45-17:15 Development of High Performance Thermoelectric Materials and Devices
Lidong CHEN, Shanghai Institute of Ceramics, CAS, China
- 17:15-17:45 Carbon Dioxide a Raw Material for Sustainable Development
Jacques AMOUROUX, ENSCP, Paris, France
- 18:00** **Dinner**
Location: *S Restaurant, 4th Floor, Tower A, Shilla Hotel*
- 19:00** **Night Tour in Suzhou** (*Waiting at the lobby of Shilla Hotel*)

19:30

Panel Discussion for the Suzhou Declaration 2009

Location: Lakeside room 8, 3rd Floor, Tower B, Shilla Hotel

Chairs: R.P.H. CHANG, Dave GINLEY, Yafang HAN, Paul SIFFERT

Participants: B.V.R CHOWDARI, Gabriel CREAN, Mildred DRESSELHAUS, Qiang FENG, Martin GREEN, Katsuhiko HIROSE, Boyun HUANG, Alan J. HURD, Naoki KISHIMOTO, Lijun JIANG, Si-Chen LEE, Jean Pierre MASSUE, Tsong-pyng PERNG, Subhash C. SINGHAL, Francesco PRIOLO, Duan WENG, Osamu YAMAMOTO, Zhaoxiong ZHOU

Thursday, Oct. 15, 2009

08:00-12:00

Round-table Panel Discussion & Report Writing (6 topics)

(Divided into six sessions, organized by chairs of six technical topics, preparing six official technical reports. Please find the detailed agenda of the round-table meetings in the next.)

12:00 - 13:30

Lunch

Location: S Restaurant, 4th Floor, Tower A, Shilla Hotel

14:00 - 15:30

Reporting Back

Location: Jasmine room, 4th Floor, Tower B, Shilla Hotel

Chairs: Shaoxiong ZHOU, Gabriel CREAN

(15 minutes for each technical session by one of chairs)

15:30-15:50

Coffee Break

15:50-17:20

Summary Overview, Declaration and Closing

Location: Jasmine room, 4th Floor, Tower B, Shilla Hotel

Chairs: Mildred DRESSELHAUS, Francesco PRIOLO

15:50-16:20

Summary Overview: **Zakya KAFABI**

16:20-16:50

Declaration: **Boyun HUANG**

16:50-17:20

Closing Remarks

18:00

Dinner

Location: S Restaurant, 4th Floor, Tower A, Shilla Hotel

Friday, Oct.16, 2009

Departure from Shilla hotel to Shanghai Pudong/Hongqiao airports in the morning.