



1st Announcement

**International Scientific Committee Member for
International Symposium on Innovative Materials for
Processes in Energy Systems 2010 (IMPRES2010)**

— For Fuel Cells, Heat Pumps and Sorption Systems —

November 29–December 1, 2010
Furama Riverfront Hotel, Singapore

Organizer :
IMPRES2010 Organizing Committee

Co-organizers :
Faculty of Engineering, National University of Singapore
Faculty of Engineering, Kyushu University, Japan
School of Mechanical & Aerospace Engineering, Nanyang
Technological University, Singapore

Sponsor:
Mayekawa Manufacturing Co. Ltd., Japan

Symposium web-site: www.impres2010.org/

CONFERENCE OUTLINE

This international symposium welcomes participants of professionals dedicated to theories, experiments, simulations, on the development of functional materials for fuel cells, heat pumps, sorption systems and their applied aspects. Attendees will include consulting engineers, design engineers, contractors, architects, manufacturers, researchers and academics. The IMPRES held in every three years and this is the second international conference after the successful completion of IMPRES2007 at Kyoto, Japan. We hope to have stimulating and lively discussions in the heart of the city state Singapore.

Venue

Furama Riverfront Singapore
405 Havelock Road
Singapore 169699
Tel: +65-67396420, Fax: +65-67327025
<http://www.furama.com/riverfront/>
Email: salesadmin.riverfront@furama.com

SCOPE

The conference is concerned with the application of novel materials in the field of energy systems with special focus on the gas-solid reaction processes in various energy conversion systems.

Materials for fuel cells, heat pumps, sorption systems and other energy conversion and storage devices will be discussed. Common concerns include material reactivity, heat and mass transfer characteristics, durability, stability under high-temperature and severe conditions and cost. This conference aims to bring workers focusing on different aspects of gas-solid reactions in energy conversion and promote an interchange of ideas across subjects.

TOPICS

The following list of topics illustrates the scope of the conference.

I. Materials application

Materials for electric energy conversion and storage

- a) Solid oxide fuel cells
- b) Polymer electrolyte membrane and direct methanol fuel cells
- c) Thermoelectric devices
- d) Hydrogen production, storage and carrier systems
- e) Batteries and materials for thermal energy conversion and storage
- f) Chemical heat pumps
- g) Adsorption heat pumps
- h) Phase change material heat storage
- i) Desiccant systems
- j) Materials Performance
- h) Improved performance of materials
 1. Reactivity
 2. Heat and mass transfer
 3. Energy storage and conversion density
 4. Durability in repetitive operation including high temperatures and severe conditions
 5. Materials design
 6. Composite materials
 7. Membrane reactors
 8. System reliability (corrosion, reactor sealing, reaction selectivity, etc.)
8. Others

CALL FOR PAPERS

The conference will be conducted in English. Extended abstract(s) related to the above topics are invited by May 15, 2010.

ABSTRACT SUBMISSION

The extended abstract between 300 to 500 words containing the names and addresses of the authors, telephone, fax and e-mail, stating clearly the objective of the work, results and a brief conclusion should be submitted electronically to:

www.impres2010.org/

Author(s) should indicate which topic area the paper is addressing. Papers those are not suitable for the above topics should be labeled as "other".

IMPORTANT: The web site only accepts ASCII characters, and does not accept equations, special symbols, tables and figures, which may be lost when you paste your abstract into the form. If authors feel they must use special symbols, equations, tables, or figures they can submit their abstracts through e-mail by attaching MS Word or PDF files to: Prof. B.B. Saha (Chairman) saha@mech.kyushu-u.ac.jp and Dr. A. Chakraborty (Secretary) AChakraborty@ntu.edu.sg

- Technical papers will be presented by either orally or posters with short oral presentation for each poster.
- Selected papers will be published in agreed-upon SCI international journals after reviewing.

DEADLINES

Submission of abstract:	May 15, 2010
Notice of acceptance:	May 31, 2010
Submission of full manuscript:	June 15, 2010
Acceptance notice:	July 31, 2010
Final manuscript submission:	September 15, 2010

CONFERENCE FEE*

Registration Fees (On or before September 15, 2010):

Delegate:	S\$ 750
Student:	S\$ 450
Accompany**:	S\$ 300
Late Registration (including onsite registration):	
Delegate:	S\$ 850
Student:	S\$ 550

Conference proceedings in book and CD-ROM, reception party, conference banquet, 2 lunches and coffee breaks are included in the registration fees.

*Each paper requires registration of at least one participant before September 15, 2010, who will present the paper during the conference.

**Accompanying person will not receive conference proceedings.

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ATTRACTIVE PLACES IN SINGAPORE

Sentosa

Nature beckons everywhere on Sentosa, where a lazy holiday of sun, sand and sea awaits one and all. The fun paradise of Singapore is MERLION standing 37 m tall. The MERLION (the shape of a lion's head and the body of a fish) offers vantage viewing point of Sentosa, Singapore's city skyline and the surrounding islands.



Jurong Bird Park

Jurong Bird Park is a 20.2 hectare open-concept park. It is the largest in the Asia Pacific and one of the finest bird parks in the world. Jurong Bird Park, collection of more than 8,000 birds from 600 species, offers visitors an experience that is entertaining and educational.

Clark Quay

Clark Quay features five blocks of restored warehouses and is the home to hip entertainment, dining outlets and shops of all kinds. In the evening, theme pubs and bars become alive with classic rock, hard rock, the blues and music from the 60s.

