

International IUPAC Conference on

# High Temperature Materials Chemistry-XI

19 – 23 May 2003

Tokyo – Japan



First Announcement

International Union of Pure and Applied Chemistry  
(IUPAC)

## Main Topics

The aim of the conference is to provide an up-to date forum for the latest science and technology affecting advanced inorganic materials (ceramics, metals, alloys, composites, nano-structures and molten salts) that are used, processed or fabricated at high temperatures. Emphasis is laid on topics related to understanding and predicting the chemistry of the properties, behavior and preparation of high temperature condensed materials and the fluid phases from which they are formed or with which they react. The scope of the conference ranges from fundamentals (e.g. atomic scale models) to technical application (e.g. component behavior in service).

The topics in HTMC-XI cover the following areas:

- Thermodynamics/ Reaction Kinetics
  - Phase equilibrium, Thermodynamic data,
  - Diffusion coefficient—
- Solid State Chemistry
  - Defect chemistry, Transport phenomena—
- Gas-Phase Chemistry
  - Molecule, Cluster, Vaporization—
- Liquid-Phase Chemistry
  - Molten salt, Liquid metal, Supercritical fluid—
- Interfaces and Surface Chemistry: Solid/ Gas, Solid/ Liquid,

Solid/ Solid

- Corrosion/ Oxidation, Segregation, Adsorption/ Desorption, Sticking probability—
- Nanocrystal, Single Crystal
- Preparation/ Characterization of Advanced Bulk Materials, Composite Materials and Thin-Films
  - Preparation of ceramic feed-stock, CVD, Plasma-processing, Photon irradiation, Particle beam irradiation—
- Actinide/Lanthanide Chemistry
- Ignition Processes and Flame
- Modeling, Database and Simulation
- Process Technology: Application to Nuclear Technology
  - Nuclear fuel cycle processes, Fusion reactor blanket processes, Rad waste treatment—
- Process Technology: Application to Energy/ Environment
  - Waste treatment, Solid oxide fuel cell, Oxygen permeating membrane, High temperature gas purification—

### Contributions

The conference will include invited lectures and contributed papers (oral presentations and posters). The final decision will be made by the National Organizing Committee.

### Language

The official language of the Conference will be English.

### Pre-registration

If you are interested in attending the conference or presenting your work, please send the attached Pre-Registration Form to the conference address by e-mail to make sure you get the further information.

### Call for Papers

Papers dealing with the topics of the conference to be presented as orals or posters will be welcome. The full text of each contribution will be published in the Conference Proceedings.

If you wish to present your work, please submit a camera-ready A4 size and one-page abstract as well as the attached pre-registration form. The abstract should be typed 1.5 spaced leaving a 2.5 cm margin on all sides, headed and centered by a title, name(s) and complete address(es) of the author(s). “Times New Roman” font should be used and font size is **bold 12 point for title and plain 10.5 point for others.** Please underline the name of the author who will present the paper, and submit the abstract to the conference address by air-mail (note: not by e-mail).

The deadline for submission of abstract is **13 September 2002**.

Authors will be notified of acceptance by **December 2002** and the complete manuscript are required by **19 May 2003** to enable papers to be reviewed and if necessary edited before final acceptance and printing.

Conference proceedings will be published as a special issue of an international journal (such as J. Phys. Chem. Solids, under consideration) encompassing only the papers presented at the conference.

### Preliminary Schedule

13 September 2002	Abstract due
December 2002	Authors notified
	Final program
	Second Announcement
	Presentation guidelines/ Registration
1 March 2003	Deadline for early registration
19 May 2003	Full paper due
19-23 May 2003	Conference

## Venue

The conference will be held at Sanjo Conference Hall of the University of Tokyo, Tokyo.

## Thermodynamic Database Demonstration

Major suppliers of thermodynamic data bases and computer softwares will present their products and allow hands-on use of computers.

## Conference Fees

The conference fee will be:

	Until 1 March 2003	After 2 March 2003
Foreign Participant	US\$ 350	US\$ 400
Foreign Student	US\$ 70	US\$ 80
Japanese Participant	JPY 45000	JPY 52000
Japanese Student	JPY 9000	JPY 10000

The conference fee includes the proceedings and refreshments.

You can find many restaurants for lunch in and near the university.

## Accommodations

You can find a lot of comfortable, convenient and reasonable price hotels near the University of Tokyo and in the center of Tokyo. For the foreign participants, the information on the accommodation will be shown in the 2nd Announcement.

## What is Tokyo

From its establishment in 1603 to 1868 Tokyo prospered as a castle town named Edo. By the 18th century it was the largest city in the world, with a population of over a million, exceeding even London's. Now, Tokyo is one of the exciting metropolises in the world. At the core is the business center; to the east is the center of the former Edo-town people's culture, "shitamachi", and to the west is the skyscraper city of Shinjuku, where the Tokyo government now resides. Meanwhile, around the major stations are mega department stores, shopping centers, restaurants companies and the playgrounds of the nights. What may also be surprising about Tokyo is that it is by no means all-concrete: there are parks and gardens everywhere, and within an hour of the city center there are beaches and a green hinterland.

You can also enjoy Yokohama (the second largest city and the first harbor opened to the world after international isolation), Kamakura (the seat of the first shogunate from 1192 to 1333) and Hakone (a popular mountain hot-spring resort).

## Further Information

Further details will be provided in the Second Announcement available in December 2002 including presentation guideline and registration form.

All information on the Second Announcement will be found on the Internet:

[http://www.q.t.u-tokyo.ac.jp/public/HTMC\\_XI](http://www.q.t.u-tokyo.ac.jp/public/HTMC_XI)

## Conference Organizers

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H. Yokokawa (Co-Chair)	National Institute of Advanced Industrial Science and Technology

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The Iron and Steel Institute of Japan

#### **Conference Address**

website: [http://www.q.t.u-tokyo.ac.jp/public/HTMC\\_XI](http://www.q.t.u-tokyo.ac.jp/public/HTMC_XI)  
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**If you are interested in participation or presenting your work, please return the following information to the conference address by e-mail ([htmc11@flanker.q.t.u-tokyo.ac.jp](mailto:htmc11@flanker.q.t.u-tokyo.ac.jp)).**

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### **Pre-Registration Form**

I am interested in HTMC-XI.  
Please put me on your mailing list.

I plan to present my work in HTMC-XI

Name: .....  
First name(s): .....  
Institution: .....  
Address: .....  
Postal Code: ..... Country: .....  
Phone: ..... FAX: .....  
E-mail: .....

### **Submitted Short Abstract** (if you want to present your work)

Title: .....  
.....  
Authors: .....  
.....

**Please note that if you want to present your work, submit an abstract by 13 September 2002, besides this pre-registration form. Please send your camera-ready abstract by air-mail.**

Date: ..... Signature: .....

### **Other Information**

It takes about 1.5 hours to access to Center of Tokyo from the Narita (Tokyo) International Airport.

You can see the access to The University of Tokyo and the location of Sanjo Conference Hall on WWW site:  
<http://www.u-tokyo.ac.jp/eng/campus/map/index.html>