

# JaST International Tribology Forum

## “Boundary Communication between Nanotechnology and Tribology”

Date: 15, May, 2008

AIST Tokyo Waterfront

**Scope** *It is believed that breaking down barriers between scientific fields is a key to approaching the truth. In order to break the disciplinary boundaries, it is essential to view the specific field from its outside. The same is true in tribology. The idea of the breaking boundaries will also lead to internationalization. The JaST International Tribology Forum will focus on “Nanotechnology” in which research fields are expanding. The relation between the tribology and nanotechnology will be discussed from worldwide view in this forum. The participants will be expected to find the methods to reach their new research fields.*  
Coordinators: Makoto TOMIMOTO, Yasuhisa ANDO

**Venue** AIST Tokyo Waterfront, Bio-IT Research Building 11/F (2-41-6, 2-41-6, Aomi, Koto-ku, Tokyo 135-0064, JAPAN

Virtual Site - SAE Technology Centre /Hong Kong, Korea Institute of Science and Technology /Korea

**Support** National Institute of Advanced Industrial Science and Technology (AIST)

### Program

9:00-9:10 **Welcome Address** by Koji KATO /Nihon University

#### **Fundamentals of Nanotribology**

9:10-10:10 “The Role of Nanotribology in Nanotechnology”

by Stephen M. HSU /George Washington University, City University of Hong Kong

10:10-10:50 “Theoretical Studies of Nano-Scale Ultralow Friction and Force Microscopy”

by Naruo SASAKI /Seikei University

10:50-11:30 *-Internet Session from Korea-\**

“Biomimetics in Micro/Nano Tribology”

by Eui-Sung YOON /Korea Institute of Science and Technology

\* Please note that the “Internet Session” may happen to be canceled due to the network conditions.

11:30-12:10 “Classical Analogue of the Quantum Mechanically Predicted Surface/interface Properties of Nanomaterials”

by Susumu FUKATSU /University of Tokyo

#### **Mega Potential of Nanotechnology/Nanotribology**

13:30-14:30 “Microscale Tribology of Nanostructured Coatings”

by Kathryn J. WAHL /Naval Research Laboratory

14:30-15:10 “The Magic of 3D Organic Film Characterization with C60 Ions Combined with XPS and TOF-SIMS”

by John S. HAMMOND /Physical Electronics

(Break)

15:30-16:10 “Reactions of PFPE Lubricants in HDI and Future HDD Lubrication”

by Paul H. KASAI /MORESCO, Matsumura Oil Research Corp.

16:10-16:50 “Super Lubrication of Concentrated Polymer Brushes in Solvents”

by Yoshinobu TSUJII /Kyoto University

16:50-17:30 “Applied Technology of DLC Coating”

by Makoto KANO /Kanagawa Industrial Technology Center

17:30-17:40 **Closing Remark** by Takashi YAMAMOTO /Tokyo University of Agriculture and Technology

## Registration

Advanced registrations are required to grasp the number of participants. Please use the registration form, if you understand Japanese or your Japanese colleagues help you to fill the registration form. Or you can send an email to [jast@tribology.jp](mailto:jast@tribology.jp), in which you should describe the name of participants. The title of the email should be "2008 forum."

We can accept additional pre-registration at the Yoyogi-site (12-14, May, 2008) only when seats available.

**Registration Fee**     **Free**

**Deadline**             **1, May, 2008** (The registration will be closed when seats are filled up.)

**Limit Number of Participants**     140

**Access**                <http://unit.aist.go.jp/waterfront/en/index.html>

A 2-minute walk from Telecom Center Station on the Tokyo Waterfront New Transit "Yurikamome" Line

A 15-minute walk from the Tokyo Teleport Station on the "Rinkai" Line

