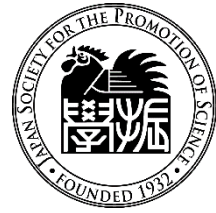




TUHH
Technische Universität Hamburg



16th Annual German-Japanese Colloquium

Process Engineering

*'New Materials for Future Reactors
in Process Engineering'*

December 9-10, 2019

Hosted by

Hamburg University of Technology Germany

Kobe University Japan

JSPS Bonn Office

The Conference Venue

Hamburg University of Technology,
Denickestrasse 22, 21073 Hamburg



Colloquium Venue

Building I
Room 0053/4

Public Transport:

Closest station: S-Bahn Harburg Rathaus

You reach the TUHH by S 3 / S 31; exit at station Harburg-Rathaus, please follow the signs (Eißendorfer Straße)

Detailed Programme

SUNDAY, DECEMBER 8, 2019

19:00 **Scientific networking meeting/get together among PIs**
Café Oktober
Schloßmühlendamm 23, 21073 Hamburg

MONDAY, FEBRUARY 9, 2019

08:30 **Registration**

09:00 **Welcome and opening remarks**
Prof. Dr. Akio Tomiyama (Kobe University) Prof. Dr. Michael
Schlüter (TUHH)

09:10 **Special greeting**
Ms. Kikuko Kato (Japan Consulate General in Hamburg)
Prof. Dr. Andreas Timm-Giel (Vice-President of TUHH)

Session I – Bubble dynamics for process engineering

Chair: Prof. Akio Tomiyama

09:25 **Bubble clustering in a bubbly drink**
Prof. Kazuyasu Sugiyama (Osaka University, Japan)

10:10 **Continuum Thermodynamics of Mass Transfer across Fluid
Interfaces**
Prof. Dieter Bothe (TU Darmstadt, Germany)

10:55 – 11:15 Coffee break

11:15 **Some Experimental Studies on Bubble Dynamics for
Multiphase CFD**
Prof. Akio Tomiyama (Kobe University Japan)

12:00 **Tailor made 3D structures for optimized operation conditions
in bubble columns**
Prof. Michael Schlüter (TU Hamburg, Germany)

12:45 – 13:45 Lunch break

13:45 – 15:30 Scientific TUHH campus tour

Session II

Chair: Prof. Michael Schlüter

- 15:30** **Introduction of JSPS programme**
Yu Watanabe (JSPS Bonn office)
- 15:45** **Discussion of possible joint projects and student exchange**
- 16:45** **Closing remarks day 1**
- 17:30** **Social event**
Sightseeing-tour through the historic City of Hamburg
Hamburg Christmas Market
Conference Dinner at the “Gröninger Brauhaus”

TUESDAY, DECEMBER 10, 2019

- 9:00** **Welcome and opening remarks**

Session III - Materials for process engineering

Chair: Prof. Bodo Fiedler

- 9:25** **Nb-Doped Rutile TiO₂: a Novel Anode Material for Next-Generation Rechargeable Battery**
Prof. Hiroyuki Usui (Tottori University, Japan)
- 10:10** **Computational assisted Mg anode design for post Li energy storage devices**
Dr. Daniel Höche (Institute of Materials Research, Helmholtz-Zentrum Geesthacht, Germany)
- 10:55 – 11:15 Coffee break**
- 11:15** **Ionic conduction in porous active materials for batteries**
Prof. Minoru Mizuhata (Kobe University)
- 12:00** **Highly porous and modified carbon electrodes for energy storage**
Prof. Bodo Fiedler (TU Hamburg, Germany)

12:45 – 13:45 Lunch break

13:45 – 14:15 Group photo

Session IV - Materials for electric devices

Chair: Prof. Thorsten Kern

14:15 **Formation and optical characteristics of rare-earth-doped ZnO nanowires towards photovoltaic applications**
Dr. Jun Tatebayashi (Osaka University, Japan)

15:00 **Soft and solid state actuation**
Prof. Dr. Helmut F. Schlaak (TU Darmstadt, Germany, Department of Electrical Engineering and Information Technology)

15:45 – 16:15 Coffee break

16:15 **Route to high conversion efficiency solar cell utilizing quantum nanostructures**
Prof. Takashi Kita (Kobe University, Japan)

17:00 **Impedance tomography with sensor-materials in future reactors**
Prof. Thorsten Kern (TU Hamburg, Germany)

17:45 **Final discussion and concluding remarks**
Prof. Dr. Akio Tomiyama & Prof. Dr. Michael Schlüter
Prof. Dr. Masahiko Hayashi (JSPS Bonn office)

19:00 **Farewell and dinner meeting Japanese participants**
Restaurant Al Limone
Lämmertwiete 12, 21073 Hamburg