

Workshop on Materials Process Engineering

February 19 (Thursday), 2009

Peninsula Room (25th floor), Hotel Nikko San Francisco

222 Mason Street, San Francisco, CA 94102, U.S.A.

Workshop Organizer:

Prof. Toru H. Okabe,

Institute of Industrial Science, the University of Tokyo

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Workshop Program

Morning, February 19 (Thursday), 2009

Peninsula Room (25th floor)

AM1, Session chair: Prof. Geir M. Haarberg

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| 9:00– 9:10 | Opening Remarks
Prof. Geir M. Haarberg, Norwegian University of Science and Technology |
| 9:10– 9:50 | “Investigation of Difficulties in Processing Reactive Metals”
Prof. Georges J. Kipouros, Dalhousie University |
| 9:50– 10:30 | “The Behavior of Moisture in Cryolite Melts”
Ms. Karen S. Osen, SINTEF Materials and Chemistry |
| 10:30– 10:50 | Break |

AM2, Session chair: Prof. Georges J. Kipouros

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| 10:50– 11:30 | “Challenges and Opportunities in Titanium Metal Production”
Dr. Kevin Dring, Norsk Titanium AS |
| 11:30– 11:50 | “Progress in Solidification Refining of Si with Si–Al Melt”
Mr. Yuki Nishi, the University of Tokyo |
| 11:50– 12:10 | “The Removal Rate of Phosphorus from Molten Silicon”
Mr. Takayuki Kemmotsu, the University of Tokyo |
| 12:10– 14:00 | Lunch |

Afternoon, February 19 (Thursday), 2009

Peninsula Room (25th floor)

PM1, Session chair: Dr. Takashi Nagai

- 14:00–14:40 **“Electrowinning of Iron”**
Prof. Geir M. Haarberg, Norwegian University of Science and Technology
- 14:40–15:20 **“Electrolysis Research at SINTEF/NTNU”**
Mr. Egil Skybakmoen, SINTEF Materials and Chemistry
- 15:20–15:40 **Break**

PM2, Session chair: Dr. Kevin Dring

- 15:40–16:20 **“The Gibbs Open Source Thermodynamics Project and Integrated Computational Materials Engineering”**
Dr. Adam C. Powell, IV, Opennovation
- 16:20–16:40 **“Development of New Production Process of High Purity V Metal and V–Ti Alloys”**
Mr. Akihiko Miyauchi, the University of Tokyo
- 16:40–17:00 **“Recovery of Nd and Dy from Magnet Scrap by Utilizing Molten Salt”**
Ms. Sakae Shirayama, the University of Tokyo
- 17:00–17:10 **Closing Remarks**
Prof. Toru H. Okabe, the University of Tokyo
- Photography**
- 17:30–20:00 **Workshop Reception & Banquet**

A part of the workshop is financially supported by
the Rare Metal Research Workshop (RC-40: directed by Prof. Okabe),
one of the Special Research Group organized by
the Foundation for the Promotion of Industrial Science (FPIS).

List of Participants

Dring, Kevin, Chief Technology Officer, Norsk Titanium AS

Gaune-Escard, Marcelle, Professor,

Ecole Polytechnique, Institut Universitaire des Systemes Thermiques Industriels (IUSTI)

Haarberg, Geir M., Professor, Norwegian University of Science and Technology (NTNU)

Kemmotsu, Takayuki, Graduate Student, Institute of Industrial Science, the University of Tokyo

Kipouros, Georges J., Professor, Faculty of Engineering, Dalhousie University

Miyauchi, Akihiko, Graduate Student, Institute of Industrial Science, the University of Tokyo

Nagai, Takashi, Project Research Associate, Institute of Industrial Science, the University of Tokyo

Nishi, Yuki, Graduate Student, Institute of Industrial Science, the University of Tokyo

Oi, Taiji, Graduate Student, Institute of Industrial Science, the University of Tokyo

Okabe, Toru H., Professor, Institute of Industrial Science, the University of Tokyo

Osen, Karen S., Research Scientist, SINTEF Materials and Chemistry

Powell, Adam C. IV, Principal, Opennovation

Ratvik, Arne P., Research Manager, SINTEF Materials and Chemistry

Sakamoto, Motohiro, Graduate Student, Institute of Industrial Science, the University of Tokyo

Shirayama, Sakae, Graduate Student, Institute of Industrial Science, the University of Tokyo

Skybakmoen, Egil, Research Manager, SINTEF Materials and Chemistry

Ueno Masatoshi, Yasuda Enterprise Development America Inc.

Yasuda, Kouji, Project Research Associate, Institute of Industrial Science, the University of Tokyo

Administrative support staff from the University of Tokyo

Watanabe, Eri, Administrative staff, Institute of Industrial Science, the University of Tokyo

Yamamori, Yasutaka, Administrative staff, Institute of Industrial Science, the University of Tokyo

Yatomi, Yukiko, Administrative staff, Institute of Industrial Science, the University of Tokyo

Summary of Participants and Lectures

Participants: 21 people

Participating countries: 5 countries
(Canada, France, Norway, U.S.A., and Japan)

Lectures: 10 lectures
(2 professors, 4 professional researchers, and 4 graduate students)