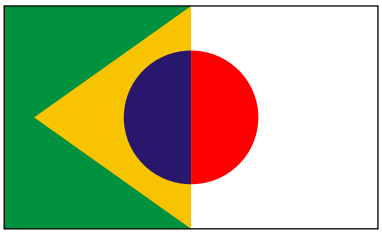

10th Japan-Brazil Symposium
on Dust Processing-Energy-Environment in Metallurgical Industries

We are pleased to announce that the "10th Japan-Brazil Symposium on Dust Processing-Energy-Environment in Metallurgical Industries" will be held in Sendai from 17th to 19th days of September 2018. Prof. Junichiro Yagi (Tohoku University) and Prof. Cyro Takano (University of São Paulo) organized the first symposium in Sendai and São Paulo in 1999 to discuss the urgent issues in the metallurgical industries. Since then the scientists and the engineers from Brazil and Japan have exchanged the scientific knowledge and the technical information, further more have deepened the friendship. After nine successful symposia, the symposium will be coming back to Sendai. This time, a part of the symposium is in conjunction with the International organizing session of the 176th meeting of the Iron and Steel Institute of Japan (ISIJ). We hope many scientists and engineers from both countries gather at Sendai in this opportunity, and to share the recent progresses of science and technology in the issues of dust processing, energy, environments, and so on.

Dates:

Sep. 17th: Tour (Laboratories in Katahira campus, Tohoku Univ.,
Suburbs of Sendai, Matsushima, Welcome reception,
Depart 8:45 from Katahira campus)
Sep. 18th: Technical session, Banquet
Sep. 19th: Technical session (in ISIJ 176th autumn meeting)

Venue:

Sep. 18th: Sakura hall, Tohoku University (Katahira campus), Sendai, Japan
Sep. 19th: B101, Kawauchi north campus, Tohoku University, Sendai, Japan

Registration fee:

Ordinary attendees:	JPY10,000.-
Students:	JPY5,000.-
Tour:	JPY10,000.- (Accompanying person: JPY3,000.-)
	Only cash payment is acceptable at registration desk.

Contact

Prof. Hiroshi Nogami
Institute of Multidisciplinary Research for Advanced Materials, Tohoku University
Phone: +81-22-217-5156
E-mail: nogami@tohoku.ac.jp

Registration:

Send an application e-mail to the above contact address, no later than **31st August**, Friday. The message should include

1. Name (First, Middle, Last names)
2. Title (Prof., Dr., Student etc.)
3. Affiliation
4. E-mail address
5. Postal address
6. Intension to attend the tour and reception (number is limited)
7. Membership of ISJ (Member/Non-member)

Organizing committee:

Prof. Junichiro Yagi (Honorary chairman, Tohoku University)
Prof. Hiroshi Nogami (Chariman, Tohoku University)
Prof. Eiki Kasai (Tohoku University)
Prof. Tomohiro Akiyama (Hokaido University)
Prof. Ichiro Naruse (Nagoya University)
Prof. Kazuya Kunitomo (Kyushu University)
Prof. Taichi Murakami (Secretary, Tohoku University)
Prof. Cyro Takano (Universidade de São Paulo)
Prof. José Carlos D'Abreu (Pontifícia Universidade Católica do Rio de Janeiro)
Prof. Paulo Santos Assis (Universidade Federal de Ouro Preto)
Prof. Jose Adilson de Castro (Universidade Federal Fluminense)
Prof. Flávio Beneduce Neto (Universidade de São Paulo)

Supporting organizations

- 54th Committee of Ironmaking, Japan Society of Promotion of Science
- Division of High-Temperature Processes, The Iron and Steel Institute of Japan
- Tohoku Branch of the Iron and Steel Institute of Japan
- Tohoku Branch of the Japan Institute of Metals and Materials
- Tohoku Branch of the Mining and Materials Processing Institute of Japan
- Ironmaking Process Forum, Division of High-Temperature Processes, The Iron and Steel Institute of Japan
- Resources and Energy Forum, Division of High-Temperature Processes, The Iron and Steel Institute of Japan
- Green Energy Forum, Division of Environmental, Energy and Social Engineering, The Iron and Steel Institute of Japan
- Institute of Multidisciplinary Research for Advanced Materials, Tohoku University
- Dynamic Alliance for Open Innovation Bridging Human, Environment and Materials

Organized by

- Society for Promotion of Material Process Engineering
- Institute of Multidisciplinary Research for Advanced Materials, Tohoku University
- Dynamic Alliance for Open Innovation Bridging Human, Environment and Materials
- Network Joint Research Center for Materials and Devices

Program

18th Sep. (Tue.) Sakura hall, Tohoku Univ.

9:00 – Registration

10:00 – Opening address

10:20 – Technical session 1

"Rapid Reduction Process of Carbon-Infiltrated Goethite-Based Ore in an Oxygen Atmosphere"

K. Abe, A. Kurniawan, M. Sanada, T. Nomura, T. Akiyama (Hokkaido Univ.)

"Exploring the New Concept of Semi-reducing Agglomerate: Preliminary Results"

C. P. Maschio, C. Takano, M. B. Mourao (USP), T. R. Ribeiro, S. L. de Moraes (IPT)

"Reduction Behavior and Rate of Iron Oxide in the Initial Melt Formation Stage"

K. Kato, H. Konishi, H. Kawabata, Y. Koizumi (Osaka Univ.), Hideki Ono (Univ. of Toyama)

"The Influence of Ultra-High Fluidity Barro Branco (Brazil) Coking Coal on Coke Quality"

B. Flores, A. Agra (UFRGS), G. Silva (Gerdau Ouro Branco), E. Osório, A. C. F. Vilela (UFRGS)

12:00 – Lunch

14:00 – Technical session 2

"Comparative Study on Carbonization of Wood and Rice"

V. B. R. Moises, C. Takano, M. B. Mourao, S. Y. Tagusagawa (USP)

"Apparent Softening Viscosity Measurement of Slag Packed Bed under Loading Condition"

K. Ohno, T. Maeda, K. Kunitomo (Kyushu Univ.)

"Development of Detailed Numerical Model of Melt Dripping in Coke Bed"

S. Natsui, A. Sawada, T. Kikuchi, R. O. Suzuki (Hokkaido Univ.)

"Modeling the Mechanical Degradation of Coke and Fines Generation during Handling"

R. M. Carvalho (UFRJ)

16:00 – Technical session 3

"Challenges in the Control of Metallic Didymium Production towards Reducing Greenhouse Gas Emissions"

J. B. Ferreira Neto, A. L. N. Silva, C. A. L. Santos, J. R. F. Silveira, M. S. Luz, F. J. G. Landgraf (IPT)

"Use of Crushed Tire Rubber as a Substitute for Coke in an Electric Arc Furnace"

D. Ambrosio (Gerdau Gr.), F. Beneduce, S. Tagusagawa (USP)

"Evaluation of Permeability Improvement in Cohesive Zone by Coke Mixing"

H. Sakai, K. Nishioka (NSSMC)

"Permeability Analysis in Lower Part of Blast Furnace Considering Consumption of Nut Coke"

Y. Kashihara, Y.Iwai, T. Sato, K. Fukada (JFE Steel), H. Nogami (Tohoku Univ.)

18:00 – Banquet (Sakura hall)

19th Sep. (Wed.) Kawauchi campus, Tohoku Univ.

Conjunction with "International Organizing Session in the 176th ISIJ meeting"

8:55 – Technical session 4

"Biogas: How We Can Reduce Environmental Impact in the Iron and Steel Industry"

P. S. Assis, K. O. Calixto, M. E. Martins (UFOP)

"Carbon Requirement for Ironmaking under Carbon and Hydrogen Co-Existing Atmosphere"

Hiroshi Nogami (Tohoku Univ.)

"Simultaneous Carbonization and Pulverization Behaviors of Biomass in the Rapid Carbonization Process Applying Heat Storage Materials"

D. Maruoka, T. Nakamura, H. Sumikawa, T. Murakami, E. Kasai (Tohoku Univ.)

"Improvements on Coking Process Time and Coke Quality by Coal Moisture Control"

P. S. Assis, M. C. Carias (REDEMAT), M. C. R. Oliveira (ENVIROX), G. L. R. Silva (GREDAU)

11:10 – Technical session 5

"Use of Biochar and Biogas as Fuel for Iron Ore Sintering in a Small Machine"

J. A. Castro, E. M. Oliveira, M. F. Campos (UFF)

"Effect of Magnetite on Initial Melt Formation in Sintering Process"

Z. Wang (Kyushu Univ.), H. Ohgi (OECD), K. Ohno, T. Maeda, K. Kunitomo (Kyushu Univ.)

12:00 – Lunch

13:10 – Technical session 5 (continued)

"Use of Different Particle Size Pellet Feeds on Granulation Behavior in the Sintering Process"

R. A. Lopes Jr., I. V. Flores, A. F. L. Oliveira, M. C. Bagatini (UFMG)

"Agglomeration of Return Fines of Sinter for Blast Furnace Raw Materials"

Y. Ogasawara, T. Sato, J. Ishii, R. Murai, S. Watakabe (JFES)

"Modeling Breakage and Mechanical Degradation of Steelmaking Materials during Handling"

R. M. Carvalho, P. P. S. Cavalcanti, L. M. Tavares (UFRJ)

14:35 – Technical session 6

"Kinetics of Simultaneous Methane Reforming and Iron Carburization in Direct Reduction"

T. R. Ribeiro, J. B. F. Neto (ITR), J. G. R. Poço (UCFEI), C. Takano (USP), L. Kolbensein (Norwegian Univ. Sci. Tech.), E. Ringdalen (SINTEF)

"Ethanol-Assisted Ironmaking of Mild-Dehydrated Goethite-Contained Ore"

A. Kurniawan, K. Abe, T. Nomura, T. Akiyama (Hokkaido Univ.)

"Economic Feasibility for Reducing Iron by Electrolysis"

M. F. Campos, J. A. Castro (UFF)

"Evaluation of Carbonization Gas from Coal and Woody Biomass and Reduction Rate Enhancement of Carbon Composite Iron Oxide Pellets by using Semi-char and Semi-charcoal"

T. Usui, H. Konishi (Osaka Univ.), K. Ichikawa (JFES), H. Ono , H. Kawabata (Osaka Univ.), F. B. Pena, M. H. Souza, A. A. Xavier, P. S. Assis (UFOP)

17:05 – Closing remark