

International Workshop on Mineral Processing & Metallurgy, IMM2019

Sustainable Iron & Steelmaking Technology

75th anniversary of the iron and steelmaking research activities in IMRAM.

Date and Time: Tuesday, 22nd October, 2019, 9:00~17:00

Place: Katahira Sakura Hall, Tohoku University

Organiser: Center for Mineral Processing and Metallurgy, Institute of Multidisciplinary Research for Advanced Materials, Tohoku University

Co-sponsorship: Tohoku branch of The Iron and Steel Institute of Japan, Tohoku branch of The Mining and Materials Processing Institute of Japan, Tohoku branch of The Japan Institute of Metals and Materials, The Research Program of "Dynamic Alliance for Open Innovation Bridging Human, Environment and Materials" in "Network Joint Research Center for Materials and Devices"

Program:

9:00 ~ 9:15 Opening address: Atsushi Muramatsu, Director, IMRAM, Tohoku Univ.

Session 1 Chairperson: Hiroyuki Shibata

9:15 ~ 9:55 Advances in the Agglomeration Technologies of Iron Ores for Efficient BF Operation / Eiki Kasai, Tohoku Univ.

9:55 ~ 10:35 Proper MgO/Al₂O₃ ratio in blast furnace slag: fundamentals and applications / Fengman Shen, Northeastern Univ., China

10:35 ~ 11:10 Several Aspects on Analysis of Blast Furnace Operation. / Hiroshi Nogami, Tohoku Univ.

11:10 ~ 11:50 Development of mini blast furnace technology based on biomass injection and self-reducing agglomerates / Jose Adilson de Castro, Federal Fluminense Univ. Brazil

Lunch

Session 2 Chairperson: Junya Kano

12:45 ~ 13:20 Recent Development and Future Direction of Steelmaking Research. / Shin-ya Kitamura, Tohoku Univ.

13:20 ~ 14:00 Revisiting Oxide Metallurgy during Additive Manufacturing of 316L Stainless Steel / Jung-Wook Cho, POSTECH, Korea

14:00 ~ 14:40 Three-dimensional investigations of non-metallic inclusions in high quality steels by using the electrolytic extraction method / Andrey V. Karaseva, KTH, Sweden

Coffee Break

Session 3 Chairperson: Shigeru Ueda

15:05 ~ 15:45 Rethinking the traditional economy through green manufacturing / Farshid Phalevani, UNSW, Australia

15:45 ~ 16:15 Novel Approach for Digitalization of Multiple-Flow in Ironmaking Process / Shungo Natsui, Tohoku Univ.

16:15 ~ 16:45 Physical properties and crystallization behaviour of molten slags and fluxes: methodology and implication / Sohei Sukenaga, Tohoku Univ.

16:45 ~ 17:00 Closing Remarks: Itaru Honma, Head of Center for Mineral Processing and Metallurgy, IMRAM, Tohoku Univ.