



The 10th Korea-Japan Workshop on Science and Technology in Ironmaking and Steelmaking

Haeundae, Busan

November 6 – November 8, 2014

Organized by

**Committee of Korea-Japan Workshop on Science and Technology
in Ironmaking and Steelmaking**

Sponsored by



Subcommittee of Steel, Korean Institute of Metals and Materials

Research Institute of Iron and Steel Technology, Yonsei University

Research Center for Iron and Steel, RIAM, Seoul National University

Graduate Institute of Ferrous Technology, POSTECH

K-Tech

Organizing Committee

Workshop Chairs

Dong-Joon Min

Yonsei University

Fumitaka Tsukihashi

The University of Tokyo

Organizing Committee

Yongsug Chung

Korea Polytechnique University

Takahiro Miki

Tohoku University

Youn-Bae Kang

Pohang Univ. of Sci. and Tech.

Kazuki Morita

The University of Tokyo

Yoshinao Kobayashi

Tokyo Institute of Technology

Joo Hyun Park

Hanyang University

Joonho Lee

Korea University

Il Sohn

Yonsei University

Editorial Board

Youn-Bae Kang

Pohang Univ. of Sci. and Tech.

Joo Hyun Park

Hanyang University

Schedule of the Workshop

Nov 6, 2014 (Thursday)

at Orchid Room (2F), Westin Chosun Hotel

16:00 – 18:00 On-site registration

18:30 – 21:00 Welcome reception

Nov 7, 2014 (Friday)

at Orchid Room (2F), Westin Chosun Hotel

9:00 – 9:05 Announcement: JH Park (Hanyang U.)

9:05 – 9:15 Opening address: DJ Min (Yonsei U.)

Chair 1: J Lee (Korea U.) and M Hayashi (Tokyo Inst. Tech.)

9:15 – 9:40 (**KJ commemorative lecture**) The history and memories of the KJ workshop and our future collaboration: K Morita (U. Tokyo)

9:40 – 10:20 (**Keynote**) The initiatives of steel technology development at POSCO: S Joo (POSCO)

10:20 – 10:40 Recent progress in simulation technology for blast furnace analysis: H Nogami (Tohoku U.)

10:40 – 11:10 Coffee break

Chair 2: I Sohn (Yonsei U.) and K Ohno (Kyushu U.)

11:10 – 11:30 Reduction behavior of iron ore fines in multi-stage fluidized bed reactors: HS Kim (POSCO)

11:20 – 11:50 Decrease in the carbon consumption of a commercial blast furnace by using carbon composite iron ore: S Kogure (NSSMC)

11:50 – 12:00 Photo session

at Rose/Lilac Room (2F), Westin Chosun Hotel

12:00 – 13:00 Lunch

at Tongbaek island

13:00 – 13:30 Outdoor working and photo session

at Orchid Room (2F), Westin Chosun Hotel

The 10th Korea-Japan Workshop on
Science and Technology in Ironmaking and Steelmaking
Haeundae, Busan, Korea, November 6-8, 2014

Chair 3: JH Park (Hanyang U.) & T Nagai (Chiba Inst. Tech.)

- 13:30 – 14:10 **(Keynote)** Capillary Metallurgy in Materials Processing: T Tanaka (Osaka U.)
- 14:10 – 14:30 The optimization for two converter process in Hyundai Steel: CH Wee (Hyundai S.)
- 14:30 – 14:50 Reaction near the firespot during oxidation refining with top-blown oxygen: Y. Uchida (JFE S.)
- 14:50 – 15:10 The effect of Si content on the decarburization behavior of chromium containing hot metal: MO Suk (POSCO)
- 15:10 – 15:40 Coffee break

Chair 4: YB Kang (POSTECH) & N Saito (Kyushu U.)

- 15:40 – 16:00 Quantitative model for the permeability of columnar dendritic structures: D. Takahashi (Kobe S.)
- 16:00 – 16:20 Prediction of inclusion behavior during LF processing using integrated numerical simulation with integrated inclusion kinetics model: K Yi (Seoul Nat. U.)
- 16:20 – 16:40 Modeling of semisolid deformation for understanding segregation band: H. Yasuda (Kyoto U.)
- 16:40 – 17:00 The optimization of steelmaking conditions to reduce macro inclusions for specialty steel: CH Chang (Hyundai S.)
- 17:00 – 17:10 Closing Remarks: F. Tsukihashi (U. Tokyo)

at Rose/Lilac Room (2F), Westin Chosun Hotel

- 18:00 – 21:00 Banquet

Nov 8, 2014 (Saturday)

- 9:40 – 10:00 At the lobby
- 10:00 – 15:00 Post-workshop tour