

The timetable the 173rd ISIJ Meeting
(March 15–17, 2017 at Tokyo Metropolitan University, Minami-Osawa Campus)

	Mar. 15 (Wed)		Mar. 16 (Thu)		Mar. 17 (Fri)	
	a.m.	p.m.	a.m.	p.m.	a.m.	p.m.
Session Room 1 (Bldg.12 Room101)	Development of simulation tool on steelmaking processes using particle method (9:00–11:55)[Charge-Free]	---	Thermodynamics 1•2 [37–45] (9:00–12:10)	Thermodynamics of transition and tramp elements in steel for advanced sustainable steelmaking (13:20–17:00)[Charge-Free]	Refining of clean high alloyed steel 1•2 [84–91] (9:00–11:50)	---
Session Room 2 (Bldg.12 Room102)	Quantification of solidification phenomena using in-situ observation, modeling and simulation techniques 1•2•3 [1–11] (9:00–13:00)		Solidification and structure control/Casting/Continuous casting•Solidifying [46–54] (9:00–12:20)	The outbreak mechanism of defects caused in the continuous casting process and their effects on the qualities of rolled products [D16–D22] (13:00–17:10)	---	---
Session Room 3 (Bldg.12 Room103)	Material processing at high temperature in electromagnetic field 1•2/ Novel processing [12–22] (9:00–13:00)		Transport phenomena/ Refractories [55–62] (9:00–11:50)	Understanding physical properties of high-temperature melts and its applications 1•2•3 [63–73] (13:00–17:00)	Slag•Dust treatment 1•2 [92–99] (9:00–11:50)	Hot metal treatment/Converter•Electric furnace/Secondary refining [100–110] (12:30–16:30)
Session Room 4 (Bldg.12 Room201)	Phenomena in the lower part of blast furnace/Packed bed structure in blast furnace [23–30] (9:00–11:50)	---	Current technologies and issues for enhancement of gas-solid reaction efficiency in blast furnace [D1–D10] (9:25–16:40)		Young engineer session of iron making/Structure evaluation of raw materials 1 [111–117] (9:30–12:00)	Structure evaluation of raw materials 2 [118–122] (13:00–14:40)
Session Room 5 (Bldg.12 Room202)	Sintering processes/Analysis of sintering bed [31–36] (9:20–11:30)	---	---	Young engineer session of coke-making/Coal and coke [74–83] (13:00–16:30)	---	---
Session Room 6 (Bldg.12 Room105)	Eco-technology for utilization of waste heat from iron and steel making 1•2 [123–130] (9:00–11:50)	---	---	Social contribution through steel industry: Coproduction and utilization of byproducts (13:00–17:00)[Charge-Free]	Capture and Separation [131–133] (10:30–11:30)	Material recycle/Historical heritage [134–139] (13:00–15:10)
Session Room 7 (Bldg.12 Room106)	---	---	System [140–142] (10:00–11:00)	Control/Instrumentation [143–150] (13:10–16:00)	Prospects of data science and system modeling for problem solving in manufacturing systems and management [D11–D15] (9:30–12:00)	---
Session Room 8 (Bldg.12 Room104)	Lubrication/Rolling [151–157] (9:30–12:00)	---	Research progresses and challenges on thermophysical properties and characteristics of scale on steel [D23–D35] (9:40–17:00)		Current status of production and application technologies of steel pipes and tubes used for life-line [D44–D47] (9:45–12:00)	Approaches to quality improvement of defect and inside voids in steel ingot [D48–D53] (13:00–16:30)
Session Room 9 (Bldg.12 Room203)	Equipment [158–160] (11:00–12:00)	---	Manufacturing technology of high quality and high functional bar and wire/Application technology of sheet/Joining and bonding [161–168] (9:10–12:00)	Advances in material modeling for the forming simulations of steel sheets [D36–D43] (13:00–17:00)	Cooling/Scale [169–176] (9:10–12:00)	15th ISIJ-JSSC Joint Symposium (13:00–16:05) [Member 2,000yen Non member 3,000yen]
Session Room 10 (Bldg.1 Room310)	---	---	Hydrogen embrittlement 1•2 [196–202] (9:30–12:00)	Hydrogen embrittlement 3•4 [203–210] (13:10–16:00)	Hydrogen embrittlement 5•6 [262–268] (9:30–12:00)	---
Session Room 11 (Bldg.1 Room308)	Tensile property of dual phase steel [177–180] (10:30–11:50)	---	Stainless steels 1•2 [211–216] (9:30–11:40)	Present conditions and maintenance for aging infrastructure II (13:10–17:00)[1,000yen]	---	Surface technology/Hot-dip coating•Painting/coating [269–277] (13:00–16:10)
Session Room 12 (Bldg.1 Room309)	Machine structural steel 1•2/ Tool steel [181–187] (9:20–11:50)	---	Microstructure and mechanical properties 1•2 [217–224] (9:10–12:00)	Fatigue/Strength•Deformation behavior [225–232] (13:00–15:50)	Deformation structure and structural analysis 1•2 [278–283] (9:30–11:40)	Heat resistant steels and alloys 1•2 [284–292] (13:00–16:10)
Session Room 13 (Bldg.1 Room304)	---	---	Electrical steels and soft magnetic materials 1•2 [233–239] (9:30–12:00)	---	---	---
Session Room 14 (Bldg.1 Room303)	---	---	Phase transformation 1•2 [240–246] (9:30–12:00)	Modeling•Simulation/Recovery, Recrystallization, Grain growth [247–256] (13:00–16:30)	---	---
Session Room 15 (Bldg.1 Room301)	Phase diagram calculation/ Aging and Precipitation [188–195] (9:10–12:00)	---	Strip steels [257–261] (10:00–11:40)	---	Microstructure formation 1•2 [293–299] (9:30–12:00)	ISIJ-JIM Joint Session Ultrafine grained materials -fundamental aspects for ultrafine grained structures- 1•2 [J15–J21] (13:00–15:30)
Session Room 16 (Bldg.6 Room101)	---	Separation and utilization of phosphorus in steelmaking slag (13:00–17:00)[Charge-Free]	Hydrogen absorption into steels during corrosion III (9:30–12:00)[Charge-Free]	Effect of second phase on mechanical properties of stainless steel (13:00–16:55)[Charge-Free]	Light elements in steels – Novel approaches to fundamental problems (9:10–16:15)[1,000yen]	
Session Room 17 (Bldg.6 Room401)	Future prospects of microstructural analyses by using neutron and X-ray diffraction (9:25–16:40)[Charge-Free]		“Characterization of microstructure in steels with neutron beam –further challenge–” ~Final symposium Research Group I “Characterization of microstructure in steels by compact neutron source~ (9:30–16:50)[Charge-Free]		Symposium on 20th anniversary of the technical division of Process Evaluation & Material Characterization ~1 (9:30–12:00)[Charge-Free]	
Session Room 18 (Bldg.6 Room402)	---	---	Elemental analysis 1•2 [300–306] (9:30–12:00)	Inclusion analysis•Organic compound analysis/Crystal structure analysis [307–313] (13:00–15:30)	---	---
JIM Session Room O (Bldg.1 Room220)	---	---	ISIJ-JIM Joint Session Titanium and its alloys 1•2•3•4 [J1–J14] (10:30–16:40)		---	---
Ceremony of conferment of the honorary membership and prize awarding, Special lecture meeting (14:00–17:00 at Bldg.6 Room110) Banquet (18:00–20:00 at International House) [7,000yen]			Poster Session for Students (12:00–15:00 at Bldg.8 and 9, 1st Fl.) ISIJ Beer Party (17:30–19:00 at Cafeteria) [1,000yen]			

[] : Lecture Number
() : Lecture Time
■ : Symposium: Please ask to each of symposium room desks directly

Board Meeting:
Instrumentation, Control and System Engineering March 16(Thu.) 12:30–13:00 Session Room7
Processing for Quality Products March 16(Thu.) 12:00–13:00 Session Room9

Program of the 173rd ISIJ Meeting (March 15-17, 2017)

High Temperature Processes

Lecture No.				
Discussion Sessions	Title	Speaker		Page
Current technologies and issues for enhancement of gas-solid reaction efficiency in blast furnace				
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D1	Effect of porosity, temperature and gas composition on reduction rate of iron oxide and calcium ferrite	T. Maeda	· · ·	1
10:00-10:30				
D2	Effect of iron ore pellet properties on blast furnace gas permeability	A. Kasai	· · ·	3
10:40-11:10				
D3	Influence of pore structures on reducibility of iron ore agglomerates at high temperature zone	H. Kawabata	· · ·	5
11:10-11:40				
D4	Distributions of reduction degree and atmosphere in iron ore layer of blast furnace	S. Ueda	· · ·	7
13:00-13:30				
D5	Effect of temperature and gas composition on carbon deposition by H ₂ -CO	K. Nishihiro	· · ·	9
13:30-14:00				
D6	Gasification reactivity of iron ore/carbon composite prepared from low-grade iron ore and heavy oil	R. Ashida	· · ·	11
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D7	Development of reactive coke agglomerate for blast furnace operation efficiency	S. Kogure	· · ·	13
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D8	Influence of inner and outer hydrogen on iron oxide reduction in samples	H. Konishi	· · ·	15
15:10-15:40				
D9	Simulation of heat and mass transfer of packed bed in blast furnace by euler-lagrange method	S. Natsui	· · ·	17
15:40-16:10				
D10	Evaluation of ferro-coke reaction behavior in blast furnace	Y. Kashihara	· · ·	20

Instrumentation, Control and System Engineering

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Prospects of data science and system modeling for problem solving in manufacturing systems and management				
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10:00-10:25				
D12	Work time measurement and simulation of factory workers with beacon devices	T. Terano	· · ·	26
10:25-10:50				
D13	Estimation of equipments connected to a university campus LAN based on connection data and analysis of outbound traffic	I. Hatono	· · ·	28
11:00-11:25				
D14	Relationship between variable selection method and estimation model in anomaly prediction	S. Kurahashi	· · ·	32
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D15	Finding multiple promising solutions and system modeling	I. Ono	· · ·	35

Processing for Quality Products

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D17	Prevention of surface defects of high-aluminum alloy steel bloom	Y. Shimamura	· · ·	42
14:05-14:35				
D18	Surface defects on steel sheet by laboratory experiments and evaluation of defect distribution in continuously-cast slabs by using ultrasonic scanning method	Y. Miki	· · ·	43
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D19	Hot strip rolling process and change of feature of defects formed in casting process	F. Fujita	· · ·	47

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D21 Effect of stress field on closure of center defects in rolling of round billets T. Katsumura . . . 55

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D22 Deformation behavior of surface micro defects on steel plates and bars during rolling N. Yukawa . . . 59

Research progresses and challenges on thermophysical properties and characteristics of scale on steel

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D24 Evaluation of heat transfer characteristics of steel with oxide scales utilizing evaporation rate measurement Y. Ohsugi . . . 65

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D25 Influence of oxide scale on heat transfer coefficient in hot forging N. Yukawa . . . 68

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D26 Characteristics of contact heat transfer between die and materials through oxide scale S. Ueoka . . . 72

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D28 Phase transformation property of FeO H. Tanei . . . 77

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D34 Thermal diffusivity measurements of oxide scales by the flash method M. Akoshima . . . 92

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D40 Prediction of biaxial deformation behavior in a cold-rolled steel sheet using various crystal plasticity models T. Hama . . . 109

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D51 Prevention technology for the center porosity of large diameter billet in forging and rolling process M. Nakasaki . . . 142

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High Temperature Processes

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Understanding physical properties of high-temperature melts and its applications 1

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66 Thermal conductivity of multicomponent molten borosilicate	K. Tanaka	• • •	216

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Refining of clean high alloyed steel 1

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Refining of clean high alloyed steel 2

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Slag • Dust treatment 1

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Slag · Dust treatment 2

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