

Contents

Special Issue on

Fundamentals and Applications of Interfacial Physical Chemistry in Iron and Steelmaking Processes
————— Fundamentals and Applications of Equilibrium Phenomena —————

Review	Wetting Phenomena in Materials Processing	
	<i>K. NOGI</i>	1
Paper	Estimation of Hamaker Constants of Al_2O_3/Al_2O_3, Al_2O_3/Bubble in Molten Iron Using Fowkes's Method	
	<i>W. LIN and K. SHIMME</i>	7
	Separation Mechanism of Inclusion from Molten Steel during RH Treatment	
	<i>T. MURAI, H. MATSUNO, E. SAKURAI and H. KAWASHIMA</i>	13
	Nonequilibrium Wetting in Si/Al-Si and Ni/Al-Ni Systems	
	<i>H. NAKAE</i>	19
	The Wettabilities of Graphite by Liquid Carbon-saturated Fe-Cu, Fe-Sn and Fe-S Alloys	
	<i>T. TANAKA, S. HARA and M. OKAMOTO</i>	25
<hr/>		
Paper	Relationship between Region of Preferential Vaporization and Bath Convection in Ar Arc Plasma Melting	
	<i>G. W. HE, K. ISHII, Y. SASAKI, Y. KASHIWAYA and K. MATSURA</i>	31
	Development of Injection Lance with High Combustibility for High Rate Coal Injection	
	<i>M. SATO, R. MURAI, T. ARIYAMA, A. MAKI, A. SHIMOMURA and K. MORI</i>	37
	The Formation Mechanism of Center-line Cracking on the Continuous Cast Slab	
	<i>A. KUSANO, H. MISUMI, H. CHIBA and S. HARADA</i>	43
	Estimation of Primary Dendrite Arm Spacing and Solidified Interface Morphology in Low Carbon Steel by Introducing Quasi Fe-C Binary Alloy	
	<i>H. ESAKA and S. OGIBAYASHI</i>	49
	The Measurement of Ar Solubility in Water by Using Spectrometer	
	<i>Y. H. WANG, K. TOKUCHI, K. ISHII, Y. SASAKI and Y. KASHIWAYA</i>	55
	Relative Sensitivity Factors for Cu, Al and Ti-based Metals in Glow Discharge Mass Spectrometry	
	<i>M. INOUE, N. OKAMOTO, T. SAKA and T. IKUBO</i>	61
	Graphite Nucleation on Boron-Nitride in 0.53% C Steel	
	<i>T. IWAMOTO, H. OTA, T. HOSHINO, K. AMANO and J. SHIMOMURA</i>	67
	Microstructure at Interface of Steel/Aluminum Bonding Sheet and Formation of Intermetallic Compound	
	<i>H. OIKAWA, T. SAITOH, T. YOSHIMURA and T. KIRIYAMA</i>	73
	Effect of Primary Carbide on Fatigue Life in Die Steel for Cold Working	
	<i>J. YOSHIDA, M. KATSUMATA and Y. YAMAZAKI</i>	79
<hr/>		
	ISIJ International, Vol.38 (1998), No.1, Synopses and Titles	A1
	Instructions for Authors	A4