

Contents

Review	Recent Characterization of Steel by Surface Analysis Methods/S. SUZUKI	551
Paper	Measurement of Reduction Rate of Hematite Powder with CO-CO₂ Gas Mixture by Using Thermobalance I. ARAKI, T. MAEDA, T. MURAYAMA and Y. ONO.....	558
	High-Temperature Oxidation of Ni Bearing Low-Alloy Steels in the Air T. KATO, M. KAWAMOTO and T. WATANABE	564
	Development of Dephosphorization Process of Hot Metal by Simultaneous Injection of Gaseous Oxygen and Iron Oxide Flux with Single-hole Lance T. SUZUKI, H. NAKATO, T. FUJII, T. MAKINO, H. OKUDA and K. TAKAHASHI	569
	Kinetics of Reactions between MnO Based Slag and Fe-C-P-Si-S Alloy E. SHIBATA, H. SUN and K. MORI	575
	Characteristic of Nozzle with Step for Prevention of Uneven Flow S. YOKOYA, S. HASEO, Y. ASAKO, S. TAKAGI, K. AYATA, J. SZEKELY and S. HARA	581
	Effect of Zr-oxide Particles on the MnS Precipitation in Low S Steels T. SAWAI, M. WAKOH and S. MIZOGUCHI	587
	Effect of Ti-Zr Oxide Particles on MnS Precipitation in Low S Steels M. WAKOH, T. SAWAI and S. MIZOGUCHI	593
	Numerical Analysis of Stress and Displacement in Subsurface Layer of Work Roll for Hot Rolling by Interconnecting Stress and Thermal Loads H. YAMAMOTO, S. UCHIDA, T. INOUE, S. ARAYA and K. NAKAJIMA	599
	Surface Characteristics and Properties of Consolidated Material for Gas Atomized High Ni Alloy Powder T. FUKUDA, Y. OHASHI, N. USUKI, K. OGAWA and K. KOSHIRO	605
	Microstructures and Depth Analysis of Crystalline Phases in Soft-Nitrided Steels T. TAKAYAMA, S. HINOTANI, K. IZUMI, Y. KAMADA, M. KONDO and M. MORI	611
	Prediction of Structure Change of Austenite of Low Carbon Steels J. WAKITA, M. TAKAHASHI, J. HAJI, O. KAWANO and K. ESAKA	617
	Behavior of Inert Gas Contamination in High Ni Alloy Powder and Consolidated Powder Material T. FUKUDA, Y. OHASHI and K. KOSHIRO	623
	Influence of Chemical Compositions on Toughness of Steels with the Microstructure of As-quenched Martensite T. HASEGAWA, H. MABUCHI and S. AIHARA	628
ISIJ International, Vol.36 (1996), No.7, Synopses and Titles	A24	
