

Contents

Fundamentals of High Temperature Processes

Visualization of Collision Behavior of Particles Simulating Inclusions in a Turbulent Flow and
Its Theoretical Analysis

Y. MURAKATA, M.-G. SUNG, K. SASSA and S. ASAI579

Experiment on Adhesion and Removal of Suspended Particle in Liquid by Bubble

—Investigation on Removal Rate Constant at Initial Stage—

H. ARAI, S. NAKAMURA, A. OKAYAMA, K. MATSUMOTO and S. TANIGUCHI584

Ironmaking

Effect of HBI Utilization on Blast Furnace Productivity

Y. UJISAWA, K. SUNAHARA, Y. MATSUKURA, K. NAKANO and T. YAMAMOTO591

Forming Processing and Thermomechanical Treatment

Asymmetric Rolling Theory Based on Numerical Analysis Using Orowan's Theory

T. MORIMOTO, F. YOSHIDA, I. CHIKUSHI and J. YANAGIMOTO601

Transformations and Microstructures

Identification and Formation Mechanism of a Deformation Process Determining Microstructure
of Type IV Creep Damage of the Advanced High Cr Containing Ferritic Heat Resistant Steel

Y. HASEGAWA, T. MURAKI and M. OHGAMI609

Creep Deformation Process Determining Microstructure of Type IV Creep Damage of
the Advanced Ferritic Heat Resistant Steel with High Cr Content

Y. HASEGAWA, T. MURAKI and M. OHGAMI618

Social and Environmental Engineering

Substance Flow Analysis of Nickel for Risk Assessment of Nickel and Nickel Compounds in Japan

K. TSUNEMI and H. WADA627

Numerical Model Analyses on the Effects of Steelmaking Slag Addition to Growth of
the Marine Diatom *Skeletonema costatum*: Importance of pH Effects

M. SUZUKI and T. YAMAMOTO635

ISIJ International, Vol.46 (2006), No.10, Synopses and TitlesA33
