

Contents

Fundamentals of High Temperature Processes

- Mixing Time in a Cylindrical Bath Agitated by Downward Gas Injection
Y. TAKATSUKA and M. IGUCHI815

Ironmaking

- Analysis of Segregation Property of Burden Using 2-Dimensional Discrete Model
S. MATSUZAKI and Y. TAGUCHI823

Steelmaking

- Fundamental Analysis of Heat Transfer in Steel Scrap Preheating under Radiative and Convective
Conditions/T. WANG, M. KAWAKAMI and K. MORI831
- Effect of Slag Properties on Reduction Rate of Chromium Oxide in Cr₂O₃ Containing Slag by Carbon in
Steel/K. MIYAMOTO, K. KATO and T. YUKI838

Chemical and Physical Analysis

- Collection of Laser-sampled Particles in Solutions Followed by ICP-MS for the Analysis of Steel and
Zircaloy/T. TANAKA, M. SEKI, J. KURAMATA and M. HIRAIDE845

Surface Treatment and Corrosion

- Distribution of Hydrogen Occluded in Bolts Tightened beyond the Yield Strength and Exposed at a
Seashore Site/S. SAKASHITA, E. AKIYAMA, K. TSUZAKI and S. MATSUYAMA849

Transformations and Microstructures

- Evolution of Ultrafine-grained Structure through Large Strain-High Z Deformation in a Low Carbon Steel
A. OHMORI, S. TORIZUKA, K. NAGAI, K. YAMADA and Y. KOGO857

Mechanical Properties

- Fatigue Behavior of Stainless Steels with Different Ferrite and Austenite Volume Fractions in
Laboratory Air/M. AKITA, M. NAKAJIMA and K. TOKAJI865

Physical Properties

- Influence of Boron Content on Work-hardening Behavior of Al-killed Steel Sheet
Y. FUNAKAWA, T. INAZUMI and Y. HOSOYA872

ISIJ International, Vol.42 (2002), No.12, Synopses and TitlesA32

Instructions for AuthorsA38

Tetsu-to-Hagané IndexA44
