

Contents

Ironmaking

Influence of Iron Ore Properties on the Flow of Melt Formed in the Sintering Process

E. KASAI, Y. SAKANO and T. NAKAMURA 139

Steelmaking

Hybrid Control of Surface Behavior on Molten Metal by Mold Oscillation and

Intermittent Alternating Magnetic Field/Y. CHINO, K. IWAI and S. ASAI 146

Casting and Solidification

The Behavior of Argon Gas Bubbles at Meniscus in Continuous Casting Mold

H. MIZUKAMI, S. HIRAKI and T. WATANABE 152

Instrumentation, Control and System Engineering

Development of Emissivity Compensated Pyrometer Using the Information of Reflection

K. HIRAMOTO and Y. TAMURA 160

Chemical and Physical Analysis

Determination of Chromium in Iron and Steel by Adsorptive Stripping Voltammetry

with Diphenylcarbazine/T. TANAKA, S. GOZU, T. ISHIYAMA and M. SATO 166

Surface Treatment and Corrosion

Variations of Biaxial Orientation of Polyester Film on Laminated Steel in the Laminating Process

S. MORITA, H. IWASHITA, A. TANAKA and F. TERAUCHI 171

Effect of Pb on the Electrodeposition Behavior of Zn-Ni Alloy

M. YANO, H. FUKUSHIMA, H. NAKANO and T. AKIYAMA 176

Mechanical Properties

Mechanical Properties of Beta Solution Treated and Aged Ti-10V-2Fe-3Al Alloy

Y. SUGIURA, K. NAKAMURA and S. HAMAI 181

Behaviour of Dislocation Substructures during High Temperature Creep of High-Cr Ferritic Steels

Y. KADOYA and E. SHIMIZU 189

Social and Environmental Engineering

Estimation of CO₂ Emission during Thermo-mechanical Process and Eco-steel Design of a Mn-Si-C Steel

by Microstructural Control/N. TSUCHIDA, Y. TOMOTA and K. NAGAI 196