

Contents

Casting and Solidification

Effects of Addition of Titanium and Boron on Columnar Austenite Grain in Carbon Steel

M. SASAKI, K. MATSUURA, K. OHSASA and M. OHNO331

Instrumentation Control and System Engineering

Construction of WEB Sales Information System for Re-roll Maker (Technical Report)

N. YABUTA, T. HADA, N. KIMURA and Y. TSUGE376

Chemical and Physical Analysis

Emission Characteristics of Laser Ablation-Hollow Cathode Helium Glow Discharge Source and the Measurement of Carbon in Steel Sample

H. MATSUTA336

Determination of Arsenic and Antimony in “Tatara” Steel Making Sample by Neutron Activation Analysis Combined with Multiple Gamma-ray Detection

S. INOSHITA, S. SUZUKI, Y. OKADA, M. KATO, S. HIRAI, A. KIMURA, Y. HATSUKAWA, Y. TOH, M. KOIZUMI and M. OSHIMA345

Forming Processing and Thermomechanical Treatment

Effect of YAG Laser Cutting on Stretch-flangeability of Ultra High Strength TRIP Sheet Steel with Bainitic Ferrite Matrix

A. NAGASAKA, Y. KUBOTA, K. SUGIMOTO, A. MIO, T. HOJO, K. MAKII, M. KAWAJIRI and M. KITAYAMA351

Welding and Joining

Evaluation of Solidification Cracking Susceptibility in Alloy Tool Steel Considering Dependence of Primary Phase Selection

T. HASHIMOTO, H. TERASAKI and Y. KOMIZO357

Transformations and Microstructures

In-situ Observation of Ferrite Plate Formation in Low Carbon Steel during Continuous Cooling Process

N. OKU, K. ASAKURA, J. INOUE and T. KOSEKI363

Social and Environmental Engineering

CDM Project Design for Introducing Coke Dry Quenching Equipment in Shanxi Province of China

X. ZHANG, J. ASUKA, N. KAWABATA, I. OMURA, G. KAWAHARA and R. TAKAHASHI369