

Contents

Fundamentals of High Temperature Processes

- Determination of the Ti_2O_3 - CaO - Al_2O_3 Phase Diagram at Steelmaking Temperature
T. MIZOGUCHI and Y. UESHIMA376
- Model Experiment and Analysis on the Motion of Non-metallic Inclusions
J. FEI, S. NIWA, K. SASSA and S. ASAI383
- Mixing Time in a Cylindrical Bath Agitated by Off-centered Swirling Liquid Jet (Note)
D. IGUCHI, J. YOSHIDA and M. IGUCHI433

Instrumentation, Control and System Engineering

- Organized Loading Schedule System for Batch Annealing Furnace at Kudamatsu Plant,
Toyo Kohan Co., Ltd. (Technical Report)
A. YAMAMOTO, K. YAMAMOTO, K. TAKEDA and Y. TSUGE428

Surface Treatment and Corrosion

- Gigacycle Fatigue Properties of Modified-ausformed V-added Steels
H. HIRUKAWA, Y. FURUYA and S. MATSUOKA390

Transformations and Microstructures

- Effect of Magnetic Field on Martensitic Transformation in Some Ferrous Alloys (Review)
T. KAKESHITA and T. FUKUDA363
- Effect of Ti and B on Microstructure of 780 MPa Class High Strength Steel Weld Metal
H. HATANO, T. NAKAGAWA, T. SUGINO and N. HARA397

Mechanical Properties

- Cyclic Softening of the High-strength Steel HT780 Studied by Positron Annihilation Spectroscopy
M. YOSHIDA, T. ASANO, Y. FUJISHIRO and Y. SHIRAI403
- Evaluation of Toughness and Creep Properties of Aged Main Valve CrMoV Casting Steel
by Using Small Punch Specimens
T. SUGIMOTO, K. DOKI, S. KOMAZAKI and T. MISAWA408
- Assessment of Fracture Toughness by CT and Round Bar Specimens in a HT780 Steel
T. MURAKAMI, H. TODA, T. AKAHORI, M. NIINOMI and T. KOBAYASHI415

Social and Environmental Engineering

- Chlorine-containing Phases in CaO - SiO_2 - Al_2O_3 Slags and Their Dissolution Behavior into
Aqueous Solution
M. ITO and K. MORITA421