

## Contents

### Fundamentals of High Temperature Processes

Microstructure of Iron Containing Oxide Particle Obtained by CO Reduction of Wustite Pellets Consisting of MgO or CaO Solid Solution/ <i>K. TAKAHASHI, M. ASADA and M. KAWAKAMI</i> .....	1
Analysis of the Stirring Process of Water Bath Contained in a Rotating Cylindrical Vessel with Particle Imaging Velocimetry/ <i>T. SHIMIZU, J. YOSHIDA, N. TSUDA, T. KOSEKI, S. YOKOYA and M. IGUCHI</i> .....	7
X-ray Fluoroscopic Observation of Slag Foaming <i>Y. OGAWA and N. TOKUMITSU</i> .....	14

### Steelmaking

Development of the Continuous Dephosphorization and Decarburization Process Using BOF <i>Y. OGAWA, M. YANO, S. KITAMURA and H. HIRATA</i> .....	21
--	----

### Casting and Solidification

Material Evaluation and Thermal Stress Analysis of Side Dam for Twin Roll Type Strip Caster <i>S. KAJIWARA, H. SAKAGUCHI, M. MOHRI, J. YANO and K. ONISHI</i> .....	29
--	----

### Forming Processing and Thermomechanical Treatment

Modeling of Shearing Deformation Characteristics of Flange in Stretch-type and Shrink-type Flanging of Sheet Metals/ <i>L. GU, K. NAKAJIMA, Y. HOSOI, M. ONO and Y. TOZAWA</i> .....	37
--	----

### Surface Treatment and Corrosion

Evaluation on the Protective Ability by the Potential of Steel with Rust Layer Related to the Composition of the Rusts Formed on the Weathering Steel Bridges Using Ternary Diagram (Technical Report) <i>S. HARA, K. KASHIMA, H. KISHIKAWA, H. MIYUKI and T. MISAWA</i> .....	43
---	----

### Transformations and Microstructures

Isothermal Transformation Behavior in 12%Cr-0.3%C Steel <i>M. MIKAMI, T. TSUCHIYAMA and S. TAKAKI</i> .....	49
--	----

### Effect of Microstructure on Fracture Characteristics of Ti-6Al-2Sn-2Mo-2Zr-2Cr-Si Alloy

<i>M. NIINOMI, K. FUKUNAGA, G. TONO, J. KOIKE, D. EYLYON and S. FUJISHIRO</i> .....	55
---	----

### Mechanical Properties

#### Computer Simulation of the Yield Point Phenomena Based on the Work-softening Model

<i>R. ONODERA, T. MORIKAWA and R. KAMIKIHARA</i> .....	63
--	----