

## Contents

### Fundamentals of High Temperature Processes

- Control of Intensity and Distribution of Compression Waves Excited by Alternating Electromagnetic Force  
Q. WANG, K. IWAI and S. ASAI ..... 521

### Casting and Solidification

- Water Model Experiment on Mold Powder Entrapment around the Exit of Immersion Nozzle in  
Continuous Casting Mold/J. YOSHIDA, M. IGUCHI and S. YOKOYA ..... 529

### Forming Processing and Thermomechanical Treatment

- Tribological Behavior between Commercially Pure Titanium and High Speed Steel at High Temperature  
K. TAKAHASHI, T. INOUE and S. UCHIDA ..... 536

### Surface Treatment and Corrosion

- Demonstration Test of New Corrosion-resistant Boiler Tube Materials in High Efficiency Waste  
Incineration Plant/Y. KAWAHARA, N. ORITA, K. TAKAHASHI and Y. NAKAGAWA ..... 544

### Transformations and Microstructures

- Effects of Carbon and Sulfur Contents on Hot-ductility of Medium Carbon Steel  
T. INOUE, T. INAZUMI and Y. HOSOYA ..... 552

### Mechanical Properties

- Improvement of Fatigue Strength of High Strength Hot Rolled Steel Sheet for Truck Frame Use  
K. TOMITA, T. SHIOZAKI, T. URABE and K. OSAWA ..... 557
- Development of High- and Low-pressure Rotor forgings for High Temperature Steam Turbine  
(Technical Report)/Y. KADOYA, R. MAGOSHI, H. KAWAI, K. MORINAKA, M. MIKAMI and K. SOEDA ..... 564