

"Tetsu-to-Hagané"

Vol. 64, No 3, March, 1978

Contents

Foreword

Expecting ISTIC High Activity.....Toshisada MORI... 365

Technical Papers

- Kinetics of Reaction between Iron Oxide Slag and Solid Carbon
..... Y. SASAKI, Y. OKAMOTO, and T. SÔMA... 367
- The Kinetics of the Reduction of FeO in CaO-SiO₂ Slag with Solid Carbon
.....Y. SASAKI and T. SÔMA... 376
- Melting Rates of Directly Reduced Iron Pellets into Iron Melt
.....A. SATO, R. NAKAGAWA, S. YOSHIMATSU, A. FUKUZAWA, T. OZAKI
K. KASAHARA, Y. FUKUZAWA, and T. MITSUI... 385
- Rate of Desulfurization of Oxygen Containing Steel Bath and
Falling Steel Droplets..... T. TAKENOUCI and K. SUZUKI... 394
- Dephosphorization of Ferrochrome with Ca-CaF₂ Flux
.....Y. NAKAMURA, M. ITO, and K. HARASHIMA... 402
- Unusual Structure Related to the Segregation in Continuously Casting
and Ingot Making Steels..... T. SHIRAIWA, N. FUJINO, Y. SUGITANI,
S. ISHIMURA, K. YAMANAKA, and T. HARADA... 411
- Effect of Nitrogen and Drawing Schedule on the Tensile Properties
of High Carbon Steel Wire
..... Y. YAMADA, T. YOKOYAMA, T. YAMADA, T. FUJITA, and S. KINOSHITA... 420
- Nucleation and Growth of Bubbles Formed by Hydrogen Attack in Carbon
and Low Alloy SteelsT. SAKAI and H. KAJI... 430
- A Nitride Reaction of Cr₂N to π Phase in High Chromium-High
Nickel Austenitic Steels Containing 0.3~0.4% Nitrogen
.....M. KIKUCHI, T. SEKITA, S. WAKITA, and R. TANAKA... 440
- Effect of Impact Bending Rate on Fracture Behavior in Weldable
Structural SteelT. NAKAMURA, Y. RO, and S. KITAMURA... 449
- Notched Toughness of Medium Carbon Ni-Cr-Mo Steels Having Mixed
Structure of Martensite and Residual Ferrite
.....Y. TOMITA, S. OKI, and K. OKABAYASHI... 459
- Creep Properties of 16Cr-14Ni Stainless Steel Bearing Carbon and
Vanadium.....T. ISHII, T. SHINODA, and R. TANAKA... 469

Technical Report

- Effect of Alloying Elements on Creep Rupture Strength of 25Cr-20Ni
Casting Steel.....Y. FUKUI, R. SASAKI, F. HATAYA, and S. TAKAHASHI... 478

Commentaries

- Recent Development of Rolling Mill Drive EquipmentK. TOKUMITSU... 485
- Group Method of Data Handling (GMDH) and Its Applications to the
Metallurgical Processes of Iron and Steels.....Y. SAWARAGI and M. KONISHI... 491

Reports

- An Experimental Investigation into the Ancient Iron Making
Furnace by Natural Draught..... K. HASEGAWA, M. SERIZAWA, and S. AMADA... 497
- International Symposium on Influence of Metallurgy on Machinability
of Steel, Tokyo, 1977T. ARAKI ...506
- Stainless Steel 1977 A Global Forum, LondonH. ABO... 508

Abstracts.....511, Library News.....518, Notice to MembersN 35

Proceedings of the InstituteN 40

Overseas membership: Annual charges: ¥6000 (incl. postage) Initiation fee: ¥600