

"Tetsu-to-Hagané"

Vol. 65, No. 1, January, 1979

Contents

Foreword

New Year Message	T. ARAKI... 1
Review	

Production and Technology of Iron and Steel in Japan during 1978.....	T. IKI... 3
---	-------------

Technical Papers

Pore Radius Distributions of Iron Reduced from Hematite Containing Several Foreign Oxides.....	Y. IGUCHI, M. IIDA, and M. INOUYE... 24
Pore Radius Distribution of Iron Reduced from Magnetite and Wustite Containing Al_2O_3 , CaO or MgO	Y. IGUCHI and M. INOUYE... 34
Relationship of the Gas Temperature Distribution with the Descending Rate and Layer Thickness of Burden in the Throat of Blast Furnace	K. NARITA, S. INABA, I. KOBAYASHI, K. OKIMOTO, M. SHIMIZU, K. KUWANO, and K. IKEDA... 44
Kinetics of the Decarburization of Molten Fe-Cr Alloy with CO_2 -CO-Ar Mixture or Chromic Oxide	K. AMANO, K. ITO, and H. SAKAO... 53
The Effect of Fluid Flow on the Formation of the Negative Segregation Zone in Steel Ingots	K. SASAKI, Y. SUGITANI, S. KOBAYASHI, and S. ISHIMURA... 60
Influence of the Amount of Austenite on the Toughness of Two Phase Stainless Steels.....	A. HOSHINO, K. NAKANO, and M. KANAO... 70
Cyclic Plastic Behaviour of a Pure Iron, Fe-Ni Alloys and an Fe-Ni-Cu Alloy.....	S. HORIBE, R. SAGAWA, T. FUJITA, and T. ARAKI... 80
Heat Transfer in Spray Cooling on Hot Surface	K. SASAKI, Y. SUGITANI, and M. KAWASAKI... 90
A Method for Simultaneous Measurement of Both Temperature and Emissivity, and Its Applications to Steel Processes.....	T. IUCHI... 97
Chemical State Analysis of Slags by X-ray Fluorescence Spectroscopy	S. SUMITA, N. KIKUCHI, T. MAEKAWA, M. SHINMEI, and T. YOKOKAWA... 107

Technical Reports

A Study of Condition of Pits Formation and Their Features in Chloride Solution.....	N. FUKASAKO, H. MURASE, and K. KITA... 113
Analysis of Steel by X-ray Fluorescence with Chemical Technique	Y. ENDO, Y. MATSUMURA, and T. SUGIHARA... 120

Technical Review

Some Problems on Bainitic Transformation and Properties of Bainite.....	Y. OHMORI... 126
---	------------------

Commentary

Recent Development of Q-BOP/OBM Steelmaking.....	K. NAKANISHI and K. SANBONGI... 138
--	-------------------------------------

Technical Topic

Ca-Deoxidized Free-Machining Steel	S. TAKANASHI... 148
--	---------------------

Letter

My Reminiscence	C. YOSHII... 155
-----------------------	------------------

Abstracts.....	158, Report of ISIJ 96th Meeting.....	165
----------------	---------------------------------------	-----

Notice to Members.....	N1, Proceedings of the Institute.....	N14
------------------------	---------------------------------------	-----

Overseas membership: Annual charge: ¥6000 (incl. postage), Initiation fee; ¥ 600

© The Iron and Steel Institute of Japan, 1978