

## **"Tetsu-to-Hagané" Vol. 70 No. 3, March, 1984**

### **Contents**

#### **Review**

Current and Future Problems in Coal Liquefaction Plant Materials .....	T. SAKABE and Y. SUHARA... 299
--	--------------------------------

#### **Technical Review**

High Alloy Powders (I) .....	T. KATO and K. KUSAKA... 305
------------------------------	------------------------------

#### **Commentary**

Reversibilities in Martensitic Transformation and Its Reverse Transformation .....	S. KAJIWARA... 317
--	--------------------

#### **Report on the Research Committee of ISIJ**

Accuracy of Extrapolation for Creep-rupture Strength and Standardization of Extrapolation Methods.....	T. FUJITA and Y. MONMA... 327
--	-------------------------------

#### **Technical Papers and Technical Reports**

Effects of Measuring Method on the Effective Thermal Diffusivity of Packed Coal Column during Carbonization .....	T. MIURA, J. FUKAI, and S. OHTANI... 336
Evaluation of Coke Strength and Reactivity Based on the Analysis of Coke Property Distribution across the Oven Width.....	K. NISHIOKA and S. YOSHIDA... 343
Investigation of Bonding Pattern of Coal Particles and Factors for Determination of Coke Properties during Carbonization .....	K. NISHIOKA and S. YOSHIDA... 351
Development of the Carbonization Simulation Model with Consideration of Coking Mechanism .....	K. NISHIOKA, S. YOSHIDA, and M. HARIKI... 358
Effects of Na <sub>2</sub> O and BaO Additions on Phosphorus Distribution between MgO-saturated CaO-Fe <sub>2</sub> O-SiO <sub>2</sub> and Liquid Iron.....	H. SUTTO and R. INOUE... 366
Heat Conductivity of New Refractories for Iron and Steelmaking .....	K. NAGATA, Y. HASEGAWA, and K. S. GOTO... 374
Model Study of Gas-liquid Momentum Transfer to Design Optimum Tuyere Dimension for Bottom and Top/Bottom Blown Converters .....	Y. KATO, T. NOZAKI, K. NAKANISHI, T. FUJII, and T. EMI... 380
Relation between Hot Rolling Conditions and Mechanical Properties of Heavy Plates Produced from Thin Continuously-cast Slabs .....	N. OKUMURA, T. HASEGAWA, M. ODA, and M. NAGUMO... 388
Effect of Morphological Change of Fine Carbide Precipitates on the Ductility of Continuously Annealed Mild Steel Sheet .....	Y. HOSOYA, T. TAKAHASHI, H. KOBAYASHI, T. SHIMOMURA, and K. MATSUDŌ... 396
A Dimension Control of Workpieces on the Machining of Bearing Steel in Supercooled Austenite .....	Y. FUJIOKA and H. MURO... 404

Grain Refinement of Ferrite-pearlite Structure of Low Carbon Steel through the Controlled Rolling process.....	<i>H. INAGAKI...</i>	412
Effects of Microstructure on Crack Growth due to Hydrogen Embrittlement in Mild Steels ..... <i>S. HINOTANI, Y. OHMORI, and F. TERASAKI...</i>	420	
Precipitation of $M_{23}C_6$ and $\sigma$ -phase in $\delta/\gamma$ Duplex Stainless Steels..... <i>Y. OHMORI and Y. MAEHARA...</i>	428	
Effect of Organic Molecules Coated on Steel Surface upon Paint Adhesion..... <i>M. YONENO and M. KITAYAMA...</i>	436	

### Letter

Critical Oxygen Concentration for the Formation of CO Macroblowholes during Constant Rate Solidification of Iron .....	<i>M. HASHIURA and K. MORI...</i>	442
--	-----------------------------------	-----

### Reports

The 23rd Colloquium Spectroscopicum Internationale including the 10th International Conference on Atomic Spectroscopy .....	<i>T. OZAKI...</i>	445
Report of the fifth Japan-Germany Seminar .....	<i>K. MORI...</i>	446
A Report of the 3rd Topical Meeting on Fusion Reactor Materials..... <i>A. KOHYAMA...</i>	451	
Report of Discussion of 106 th ISIJ Meeting .....		452

---

Abstracts .....	461, Columns.....	460, 472
JISTIC News .....	464, Proceedings to the Institute .....	N39
Notice to Members .....	N35, The Editor's Postscript .....	472

### 編 委 員 会

委員長 宮川 大海

編集運営委員会

荒木 透	安藤 卓雄	大橋 延夫	大森 康男	金尾 正雄
加藤 健三	川上 公成	菊池 実	小指 軍夫	佐藤 忠雄
佐野 信雄	鈴木 朝夫	高石 昭吾	田村 今男	寺崎富久長
松尾 宗次	森田善一郎	湯河 透	渡辺 敏	

和文会誌分科会

主査 宮川 大海	幹事 菊池 実	荒木 健治	市田 敏郎
委員 赤須 英夫	朝野秀次郎	姉崎 正治	
一伊達 稔	稻葉 晋一	井上 毅	梅田 高照
大谷 泰夫	大坪 孝至	金尾 正雄	川上 公成
國岡 計夫	斎藤 好弘	佐々木 徹	岸 輝雄
菅 輝夫	鈴木 朝夫	辻川 茂男	雀部 実
垣生 泰弘	原 富啓	広瀬 圭介	徳田 昌則
本間 亮介	牧 正志	松田 福久	古林 英一
森 隆資	森田善一郎	吉越 英之	望月 俊男

© COPYRIGHT 1984 社団法人 日本鉄鋼協会

本書に掲載されている記事の無断転載ならびに無断コピーを禁じます。

This publication, or any part thereof, may not be reproduced in any form without the written permission of the ISIJ.