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List of Original Publications

- 1 The Rate-Determining Steps of The Reduction of Iron- Oxide Pellet (in Japanese)
Akira Moriyama, Jun-ichiro Yagi and Iwao Muchi
Journal of The Japan Institute of Metals, Vol.29 (1965), No.5, pp.528-534
- 2 Reaction Kinetics in The Blast Furnace (in Japanese)
Iwao Muchi, Jun-ichiro Yagi, Kenji Tamura and Akira Moriyama
Journal of The Japan Institute of Metals, Vol.30 (1966), No.9, pp.826-831
- 3 Mathematical Model of A Blast Furnace in The Zone above The Tuyere Level (in Japanese)
Iwao Muchi, Kenji Tamura, Jun-ichiro Yagi and Akira Moriyama
Journal of The Japan Institute of Metals, Vol. 30 (1966), No.12, pp.1109-1114
- 4 Analysis Based on Chemical Reaction Engineering for The Upper Zone of Blast Furnaces
above The Tuyere Level (in Japanese)
Iwao Muchi, Kenji Tamura, Jun-ichiro Yagi and Akira Moriyama
Journal of The Japan Institute of Metals, Vol. 30 (1966), No.12, pp.1115-1120
- 5 Behaviors of Sulfur and Silicon in Blast Furnace (in Japanese)
Iwao Muchi, Akira Moriyama, Jun-ichiro Yagi and Kenji Tamura
Journal of The Japan Institute of Metals, Vol. 31 (1967), No.2, pp.97-103
- 6 Mathematical Model of Blast Furnace Supplemented The Decomposition Rate of Limestone
and The Molar Fractions of CO, CO₂, N₂ and H₂ in Top Gas (in Japanese)
Jun-ichiro Yagi, Kenji Tamura and Iwao Muchi
Journal of The Japan Institute of Metals, Vol.31 (1967), No.2, pp.103-109
- 7 High Pressure Operation of The Blast Furnace (in Japanese)
Jun-ichiro Yagi and Iwao Muchi
Journal of The Japan Institute of Metals, Vol.31 (1967), No.4, pp.1284-1289
- 8 Application of The Reactions Concerning H₂ and Steam and The Temperature of Top Gas to

- The Blast-Furnace Model (in Japanese)
Jun-ichiro Yagi, Hiroaki Nishio, Keiichi Sasaki and Iwao Muchi
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- 9 Analysis Concerning Situations in Blast Furnace Under Arbitrary Operating Conditions (in Japanese)
Iwao Muchi, Jun-ichiro Yagi, Keiichi Sasaki and Hiroaki Nishio (in Japanese)
Tetsu-to-Hagane (Japanese-Language Journal of Iron and Steel Institute of Japan), Vol.53 (1967), No.11, pp.1184-1187
- 10 Theoretical Analysis of Iron Oxide Pellet Reduction in A Moving Bed (in Japanese)
Jun-ichiro Yagi, Akira Moriyama and Iwao Muchi
Journal of The Japan Institute of Metals, Vol.32 (1968), No.3, pp.209-213
- 11 Theoretical Investigation on The Blast Furnace Operations with The Aid of Mathematical Model (in Japanese)
Jun-ichiro Yagi, Keiichi Sasaki and Iwao Muchi
Tetsu-to-Hagane, Vol.54 (1968), No.9, pp.1019-1031
- 12 Effect of The Change in Operating Conditions on The Static Characteristics of Blast Furnace (in Japanese)
Jun-ichiro Yagi, Keiichi Sasaki, Iwao Muchi
Tetsu-to-Hagane, Vol.54 (1968), No.9, pp.1032-1037
- 13 Improved Mathematical Model for Estimating Process Variables in Blast Furnace (in Japanese)
Jun-ichiro Yagi and Iwao Muchi
Journal of The Japan Institute of Metals, Vol.32 (1968), No.12, pp.1316-1321
(English Version) Trans. Iron & Steel Inst. Japan, Vol.10 (1970), No.3, pp.181-187
- 14 Rate of Hydrogen-Reduction of The Iron Oxide Pellets Pre-reduced to Wustite (in Japanese)
Reijiro Takahashi, Jun-ichiro Yagi and Yasuo Omori
Bulletin of The Research Institute of Mineral Dressing and Metallurgy, Tohoku University, Vol.26 (1970), No.2, pp.83-94
- 15 Effect of The Change in Parameters on The Longitudinal Distributions of Process Variables, The Production Rate and The Carbon Ratio in Blast Furnace (in Japanese)

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- 16 Theoretical Estimations on the Longitudinal Distribution of Process Variables in Blast Furnace and on its Productivity
J. Yagi and I. Muchi
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- 17 Heat and Mass Transfer in The Reduction of Iron Oxide Pellet with Hydrogen (in Japanese)
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- 18 Process Simulation of Nonisothermal Fixed Bed for Noncatalytic Reaction (in Japanese)
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- 19 Study on The Reduction Process of Iron Oxide Pellets in Isothermal Fixed Bed (in Japanese)
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- 22 Evaluation of Mass Transfer Coefficient Through Gaseous Phase During the Reduction of Iron Oxide Pellet with Hydrogen (in Japanese)
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- 23 In Situ Measurement of Effective Diffusivities of Porous Iron Reduced From Iron Oxide Pellets with Hydrogen (in Japanese)
Reijiro Takahashi, Akira Kani, Jun-ichiro Yagi and Yasuo Omori
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- 24 Study on Heat Transfer Between Gas and Solid in Packed Bed and Heat Loss Through the Reactor Wall (in Japanese)
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Bulletin of The Research Institute of Mineral Dressing and Metallurgy, Tohoku University,
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- 25 A Mathematical Model of Lead Blast Furnace - Mathematical Analysis on the Operation of Lead Blast Furnace (1st Report) (in Japanese)
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- 27 A Mathematical Formulation for the Reduction of Iron Oxide Pellets in Moving Beds with Non-uniform Gas and Solid Flow
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- 28 Computed Results for the Reduction of Iron Oxide Pellets in Moving Beds with Non-uniform Gas and Solids Flow

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- 30 Reduction of Iron Oxide Pellets in Moving Bed
T. Yanagiya, J. Yagi and Y. Omori
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- 31 The Effect of Gas and Solids Maldistribution on the Performance of Moving-bed Reactors: The Reduction of Iron Oxide Pellets with Hydrogen
J. Yagi and J. Szekely
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- 32 Mechanism of Heat Transfer in Packed Beds Having Fused and Unfused Layers (in Japanese)
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- 33 Two-dimensional Mathematical Analysis on Gas Flow and Heat Transfer in Blast Furnace by The Application of Finite Element Method (in Japanese)
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- 37 Gas Flow Analysis in Blast Furnace by Using Finite Element Method with Quadratic Elements (in Japanese)
Jun-ichi Kudoh and Jun-ichiro Yagi
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- 38 Operation and Simulation of Pressurized Shaft Furnace for Direct Reduction
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- 39 Dynamic Holdup of Irrigated Packed Bed Accompanying Gas Evolution by Reaction between Liquid and Solid (in Japanese)
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- 40 Heat Loss and Heat Balance for The Moving Bed Operations (in Japanese)
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- 41 Reduction Rates of Cement-Bonded Cold Iron Ore Pellets (in Japanese)
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- 42 A Mathematical Model of Blast Furnace in Terms of Finite Element Method and Method of Characteristics (in Japanese)
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- 44 Drying and Heat Transfer Analysis of Nonfired Pellets Including Combined Water (in Japanese)
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Hiromichi Ohta, Tomohiro Akiyama, In-kook Suh, Reijiro Takahashi, Jun-ichiro Yagi and Yoshio Waseda
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- 48 Distribution of Gas Flow Rate in A Packed Bed of Spherical Particles (in Japanese)
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- 50 Measurement of Heat Transfer Rate between Particle and Fluid in Counter-current Moving

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- 51 Gas Flow Analysis in The Sludge Melting Furnace with Packed Bed (in Japanese)
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- 52 Strength and Reducibility of Nonfired Pellets Made from The Mixture of Hematite and Magnetite Ores (in Japanese)
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- 59 Two-dimensional Analysis on The Flow Characteristics of Powders around Cohesive Zone in A Blast Furnace (in Japanese)
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- 60 Kinetics of Water Gas Shift Reaction with Catalysts of Metallic Iron and Nickel (in Japanese)
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- 70 Measurement of Surface Area for Dense Iron and Nickel Catalysts by Electrolytic Solution Method (in Japanese)
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- 80 Effect of Pre-Oxidation and Reduction on The Reaching of Ilmenite Ore by Sulfuric Acid (in
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