

Published papers and articles by Nippon Steel Corporation in 1995 (Excluded in Japanese editions)

Ironmaking

Highest Production in History at Oita No. 2 Blast Furnace. Stable and High Productivity Operation Technology for More Than 12,550t/d, T. Haga, M. Higuchi, Y. Inoue, S. Morimoto, Y. Matsuoka, T. Nakayama, M. Takao, *Improv Product Blast Furn Oper* 233-245, 246 1995

Technology for Granulating Coke Breeze by Centrifugal Rolling Type Pelletizer and Effect of Granulated Coke Breeze on Sintering Operation, Y. Hosotani, N. Konno, J. Shibata, T. Sato, H. Suzuki, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 11 1340-1347 1995

Effect of Sinter-cake Load Reduction by Magnetic Force on Iron Ore Sintering, T. Inazumi, M. Fujimoto, S. Sato, K. Sato, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 4 372-379 1995

An Estimation of Thermal Stress within the Coal Briquette during Carbonization, H. Aoki, A. Ueda, K. Goto, T. Miura, K. Kato, I. Komaki, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 2 121-126 1995

Test on High-rate Pulverized Coal Injection Operation at Kimitsu No. 3 Blast Furnace, K. Yamaguchi, H. Ueno, S. Matsunaga, K. Kakiuchi, S. Amano, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 2 148-155 1995

Effects of Preheating and Highly Heat-conductive Brick on Coke Quality, K. Fukuda, T. Arima, *Proc Annu Int Pittsburgh Coal Conf* Vol. 12th 887-892 1995

Operational Results for High Pulverized Coal Injection Rate at Kimitsu No. 3 Blast Furnace, H. Ueno, S. Matsunaga, K. Kakiuchi, S. Amano, K. Yamaguchi, *Proc Ironmak Conf* Vol. 54 29-36 1995

Effects of High Fineness and Large Amounts of Ground Granulated Blast Furnace Slag on Properties and Microstructure of Slag Cements, T. Tomisawa, M. Fujii, *Spec Publ Am Concr Inst* No. SP-153 Vol. 2 951-973 1995

Steelmaking

Development of Prototype Superconducting Linear Induction Motor for Steel Making Processes, O. Tsukamoto, N. Amemiya, K. Yamagishi, S. Sato, K. Sato, T. Takao, H. Shimizu, *IEEE Trans Appl Supercond* Vol. 5, No. 2 Pt 1 976-979 1995

Effect of Stirring Energy and Rate of Oxygen Supply on the Rate of Hot Metal Dephosphorization, S. Mukawa, Y. Mizukami, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 11 1374-1380 1995

X-ray Fluoroscopic Observation of Bubble Characteristics in a Molten Iron Bath, M. Iguchi, T. Chihara, N. Takanashi, Z. Morita, Y. Ogawa, N. Tokumitsu, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 11 1354-1361 1995

Improvement of Life of Immersion Nozzle with Gas-injection, K. Sasai, Y. Mizukami, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 9 1072-1078 1995

Formation of Solidification Structure in Twin Roll Casting Process of 18Cr-8Ni Stainless Steel, T. Mizoguchi, K. Miyazawa, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 6 771-777 1995

Fluid Flow and Mixing Phenomena in the Ladle Stirred by Argon through Multi-tuyere, M-Y. Zhu, T-C. Hsiao, T. Inomoto, I. Sawada, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 5 472-479 1995

Reaction Rate between Alumina Graphite Immersion Nozzle and Low Carbon Steel, K. Sasai, Y. Mizukami, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 1 26-33 1995

Casting

Effect of the Composition of Oxide on the Reaction between Oxide and Sulfur during Solidification of Steels, H. Goto, K. Miyazawa, T. Kadota, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 12 1477-1482 1995

Effect of Cooling Rate on Composition of Oxides Precipitated during Solidification of Steels, H. Goto, K. Miyazawa, K. Tanaka, W. Yamada, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No.

6 708-714 1995

Rolling

Robust Design of Square-to-box Rolling of Steel Rods, K. Yoshimura, R. Shivpuri, K. Ishii, *ASME DE (Am Soc Mech Eng Des Eng Div)* Vol. 82 415-422 1995

Calculation Method of Loads on Skew Roll Mill for Web Expansion of H-beam, K. Ikuta, K. Aoyagi, T. Kawanami, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 9 1089-1093 1995

Adaptive Technology for Thickness Control of Finisher Set-up on Hot Strip Mill, T. Oda, N. Satoh, T. Yabuta, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 1 42-49 1995

Heat Treatment

The Formation of Intergranular Ferrite Plates in Medium-carbon Steels for Hot-forging and Its Effect on the Toughness, F. Ishikawa, T. Takahashi, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 9 1128-1133 1995

Improvement of Creep Rupture Strength of 9Cr-1Mo-V-Nb-N Steel by Thermo-mechanical Control Process, Y. Tsuchida, K. Okamoto, Y. Tokunaga, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 3 309-316 1995

Surface Treatment

Basic Study on Noncontacting Support of Thin Plate by Fluid Cushion Force (Study How to Float Strip Stably in Turning Point), Y. Shimokawa, S. Kamiyama, *ASME FED (Am Soc Mech Eng Fluids Eng Div)* Vol. 221 7-14 1995

Surface Modification of Stainless Steel in Plasma Environments, M. Hashimoto, Y. Miyamoto, Y. Kubo, S. Tokumaru, N. Ono, T. Takahashi, I. Ito, *Mater Sci Eng A* Vol. 198, No. 1/2 75-83 1995

Alloying Reaction Control in Production of Galvannealed Steel, T. Kanamaru, M. Nakayama, *Mater Sci Res Int* Vol. 1, No. 3 150-156 1995

Properties of Thin TiN Films Deposited onto Stainless Steel by In-line Dry Coating Process, Y. Miyamoto, Y. Kubo, M. Hashimoto, N. Ono, T. Takahashi, I. Ito, F. Arezzo, P. Gimond, *Thin Solid Films* Vol. 270, No. 1/2 253-259 1995

Joining

Effect of Solidification on Subsequent Ferrite-to-austenite Massive Transformation in an Austenitic Stainless Steel Weld Metal, H. Inoue, T. Koseki, S. Ohkita, T. Tanaka, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 10 1248-1257 1995

Influence of Softened Heat-affected Zone on Stress Oriented Hydrogen Induced Cracking of a High Strength Line Pipe Steel, A. Takahashi, H. Ogawa, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 10 1190-1195 1995

Determination of Necessary Preheat Temperature to Avoid Cold Cracking under Varying Ambient Temperature, T. Kasuya, N. Yurioka, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 10 1183-1189 1995

Recent Development in Controlling the Microstructure and Properties of Low Alloy Steel Weld Metals S. Ohkita, Y. Horii, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 10 1170-1182 1995

Chemical Composition and Crystal Structure of Oxide Inclusions Promoting Acicular Ferrite Transformation in Low Alloy Submerged Arc Weld Metal, Y. Morii, K. Ichikawa, S. Ohkita, S. Funaki, N. Yurioka, *Quarterly J. Japan Welding Soc.* Vol. 13, No. 4 500-507 1995

A Chart Method to Determine Necessary Preheat Temperature in Steel Welding, N. Yurioka, T. Kasuya, *Quarterly J. Japan Welding Soc.* Vol. 13, No. 3 347-357 1995

Toughness and Creep Strength of Modified 2.25Cr-1Mo Steel Weld Metal, K. Ichikawa, Y. Horii, J. Kobayashi, A. Sueda, *Weld J* Vol. 74, No. 7 230.s-238.s 1995

A Chart Method to Determine Necessary Preheat in Steel Welding, N. Yurioka, T. Kasuya, *Weld World* Vol. 35, No. 5 327-334 1995

Progress In Welding and Joining Technology and Its Future Prospect, N. Yurioka, *Nippon Steel Technical Report* 65 1-6 1995

Methods for Predicting Maximum Hardness of Heat-affected Zone and Selecting Necessary Preheat Temperature for Steel Welding, T. Kasuya, N. Yurioka, M. Okumura, *Nippon Steel Technical Report* 65 7-14 1995

Development of High-performance Welding Technology for Steel Plates and Pipe for Structural Purposes, Y. Horii, S. Ohkita, K. Shinada, K. Koyama, *Nippon Steel Technical Report* 65 15-24 1995

Welding Technology for Uncoated and Coated Steel Sheets for Automobiles, Household Electric Appliances, and Containers, T. Saito, Y. Takahashi, Y. Miyazaki, N. Mizuhashi, T. Sakiyama, *Nippon Steel Technical Report* 65 25-32 1995

Prediction of Solidification and Phase Transformation of Stainless Steel Weld Metals, T. Koseki, H. Inoue, H. Morimoto, S. Ohkita, *Nippon Steel Technical Report* 65 33-40 1995

Development of Field Fusion Welding Technology for Railroad Rails, M. Okumura, K. Karimine, K. Uchino, N. Yurioka, *Nippon Steel Technical Report* 65 41-50 1995

Forming

- Effect of In-plane Exit Angle and Radial Rake Angle on Burr Height and Thickness in Face Milling Operation, M. Hashimura, J. Hassamontr, D. A. Dornfeld, *ASME MED (Am Soc Mech Eng Manuf Eng Div)* Vol. 2, No. 1 203-217 1995
- Analysis of Three-dimensional Burr Formation in Oblique Cutting, M. Hashimura, K. Ueda, K. Manabe, D. Dornfeld, *CIRP Ann(Int Inst Prod Eng Res)* Vol. 44, No. 1 27-30 1995
- Study on Interfacial Adhesion between Cutting Tool and Microstructures of Free-machining Steel, S. Katayama, M. Hashimura, *Int J Jpn Soc Precis Eng* Vol. 29, No. 1 36-41 1995
- Forming-limit Analysis of Hemispherical-punch Stretching using the Three-dimensional Finite-element Method, T. Yoshida, T. Katayama, M. Usuda, *J Mater Process Technol* Vol. 50, No. 1/4 226-237 1995
- Forming Performance of Aluminum Alloy Sheets for Automobile Body Panels, M. Usuda, K. Hashimoto, T. Amaike, T. Katayama, Y. Abe, M. Yoshida, *SAE Tech Pap Ser (Soc Automot Eng)* RP SAE-950924 12p 1995

Steel Products

- Cracking Susceptibility of Stainless Steel Subjected to Plasma Disruption, H. Madarame, T. Sukegawa, H. Inoue, *Fusion Eng Des* Vol. 27, No. 1/4 499-506 1995
- Influence of Stress Condition on Initiation of Magnetostriction in Grain Oriented Silicon Steel, H. Masui, *IEEE Trans Magn* Vol. 31, No. 2 930-937 1995
- A Proposal of Predicting Formulae for Influence of Stress on Magnetostriction in Grain Oriented Silicon Steel, H. Masui, M. Mizokami, Y. Matsuo, H. Mogi, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 4 409-418 1995
- Magnetic Properties of Thin Gauge 3% Si-Fe with $\{110\} \langle 001 \rangle$ Orientation, Y. Ushigami, Y. Okazaki, N. Abe, T. Kumano, M. Kikuchi, T. Inokuchi, *J Mater Eng Perform* Vol. 4, No. 4 435-440 1995
- Texture of Primary Recrystallization on Nonoriented Electrical Steel Sheet with Phase Transformation, T. Kumano, T. Kubota, N. Takahashi, *J Mater Eng Perform* Vol. 4, No. 4 401-412 1995
- New-type Steel Plate with Ultra High Crack-arrestability, T. Ishikawa, Y. Nomiyama, Y. Hagiwara, H. Yoshikawa, H. Mabuchi, S. Oshita, *Proc Int Conf Offshore Mech Arct Eng* Vol. 14th, No. Vol. 3 357-363 1995

Application of Steel Products

- Quality Evaluation of Line Pipes by the Chevron Notched Drop Weight Rear Rest, T. Kubo, T. Shiwaku, J. Kondo, H. Miyazaki, Y. Kawaguchi, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 4 426-432 1995
- Chromium-bearing UOE Line Pipe for Service in Wet Carbon Dioxide Environment, H. Ishikawa, Y. Terada, Y. Ogata, H. Tamehiro, H. Ogawa, K. Shinada, K. Denpo, *Proc Int Conf Offshore Mech Arct Eng (14th)* Vol. 5 125-136 1995
- Development of High Fatigue Strength Spring-application on Clutch Disc Torsional Damper, O. Nakano, M. Suzuki, Y. Koyasu, A. Morii, Y. Izawa, *SAE Tech Pap Ser (Soc Automot Eng)* RP SAE-950903 9p 1995
- High Durability of Metal Support for Automotive Catalyst, M. Fukaya, M. Yamanaka, H. Aoyagi, *SAE Tech Pap Ser (Soc Automot Eng)* RP SAE-950622 8p 1995
- Past Development and Future Outlooks of Automotive Steel Sheets, O. Akisue, T. Hada, *Nippon Steel Technical Report* 64 1-6 1995
- Present Status and Future Outlook of Microalloyed Forging Steels, H. Takada, Y. Koyasu, *Nippon Steel Technical Report* 64 7-12 1995
- Present and Future Trends of Materials for Automotive Exhaust System, E. Sato, T. Tanoue, *Nippon Steel Technical Report* 64 13-19 1995
- Next-generation High-strength Sheet Steel Utilizing Transformation-induced Plasticity (TRIP) Effect, Y. Sakuma, N. Kimura, A. Itami, S. Hiwatashi, O. Kawano, K. Sakata, *Nippon Steel Technical Report* 64 20-25 1995
- Development of New Formable Cold-rolled Sheet Steels for Automobile Body Panels, A. Itami, H. Asano, K. Ushida, Y. Kimura, N. Kimura, K. Koyama, *Nippon Steel Technical Report* 64 26-32 1995
- Copper-bearing High-strength Sheet Steels, K. Kishida, *Nippon Steel Technical Report* 64 33-36 1995
- Recent Advances in Ultrahigh-strength Sheet Steels for Automotive Structural Use, K. Yamazaki, Y. Mizuyama, M. Oka, H. Tsuchiya, H. Yasuda, *Nippon Steel Technical Report* 64 37-44 1995
- Strengthening of Steel Wire for Tire Cord, T. Takahashi, I. Ochiai, H. Tashiro, S. Ohashi, S. Ishida, T. Tarui, *Nippon Steel Technical Report* 64 45-49 1995
- Development of High-strength Carburized Steel for Automobile Gears, H. Kanisawa, T. Ochi, Y. Koyasu, *Nippon Steel Technical Report* 64 50-54 1995

High-strength Steel Tubes for Automobile Door Impact Beams, H. Tanabe, A. Miyasaka, K. Yamazaki, T. Iwasaki, H. Akada, *Nippon Steel Technical Report* 64 55-61 1995

HAZ Softening-resistant High-strength Steel Tubes for Automobile Propeller Shafts, H. Tanabe, A. Miyasaka, I. Anai, S. Tanioka, *Nippon Steel Technical Report* 64 62-68 1995

Development of Ferritic Stainless Steel Foil as Metal Support for Automotive Catalytic Converter, I. Itoh, K. Ohmura, M. Fukaya, H. Tanaka, R. Hisatomi, F. Fudanoki, H. Morimoto, M. Arakawa, *Nippon Steel Technical Report* 64 69-74 1995

Development of Automotive Exterior Parts by ASM Blow Molding, A. Ohta, K. Kushima, H. Andoh, S. Furuki, T. Herai, *Nippon Steel Technical Report* 64 75-83 1995

Mechanical Properties

Fracture Mechanical Modeling of Brittle Crack Propagation and Arrest of Steel, S. Machida, H. Yoshinari, M. Yasuda, S. Aihara, H. Mabuchi, *ASME PVP (Am Soc Mech Eng Press Vessels Pip Div)* Vol. 300 183-195 1995

Effects of the Striking Edge Radius and Asymmetrical Strikes on Charpy Impact Test Results, M. Tanaka, H. Horigome, Y. Ohno, H. Tani, K. Shiota, A. Misawa, *ASTM Spec Tech Publ (Am Soc Test Mater)* No. 1248 153-167 1995

Effects of Copper, Nickel, Chromium and Tin on Mechanical Properties of Titanium-bearing Extralow-carbon Steel Sheets, T. Yamada, M. Oda, O. Akisue, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 11 1422-1429 1995

Improvement of Creep Rupture Strength of High Cr Ferritic Steel by Addition of W, Y. Tsuchida, K. Okamoto, Y. Tokunaga, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 3 317-323 1995

Metallography and Corrosion

An Electrochemical Impedance Study on Atmospheric Corrosion of Steels in a Cyclic Wet-dry Condition, A. Nishikata, Y. Yamashita, H. Katayama, T. Tsuru, A. Usami, K. Tanabe, H. Mabuchi, *Corros Sci* Vol. 37, No. 12 2059-2069 1995

Corrosion Performance and Application Limits of Corrosion-resistant Alloys in Oilfield Service, A. Miyasaka, H. Ogawa, *Corrosion (Houston, Tex.)* Vol. 51, No. 3 239-247 1995

Plastic Stability of Retained Austenite in the Cold-rolled 0.14%C-1.9%Si-1.7%Mn Sheet Steel, A. Itami, M. Takahashi, K. Ushioda, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 9 1121-1127 1995

Effects of Precipitate Shape on High Temperature Strength of Modified 9Cr-1Mo Steels, K. Hamada, Y. Tomita, H. Mabuchi, K. Tokuno, K. Okamoto, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 1 86-91 1995

Effect of Oxygen Content on Size Distribution of Oxides in Steel, H. Goto, K. Miyazawa, K. Tanaka, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 3 286-291 1995

Effects of Niobium Addition on the Sustained-load Cracking Characteristics in Lamellar Microstructure g-base TiAl, R. Gnanamoorthy, Y. Mutoh, Y. Mizuhara, *Mater Sci Eng A* Vol. 203, No. 1/2 348-355 1995

Relationship between Human Perception and Breakdown of Passivity, I. Muto, H. Kihira, *Mater Sci Forum* Vol. 185/188 1057-1063 1995

Equipment

Applications of Superconducting Linear Induction Motor to Steel Making Processes and Development of Prototype Machine, S. Sato, K. Sato, O. Tsukamoto, N. Amemiya, T. Takao, H. Shimizu, *Adv Supercond* Vol. 7, No. Vol. 2 1247-1250 1995

Inspection and Control

Transport Study of Self-supporting Porous Silicon, A. Fejfar, I. Pelant, E. Spek, J. Kocka, G. Juska, T. Matsumoto, Y. Kanemitsu, *Appl Phys Lett* Vol. 66, No. 9 1098-1100 1995

System Development of Particle Tracking Velocimetry for Turbulent Flow Measurement: Turbulence Measurement around a Backward Facing Step, N. Tsuda, T. Saga, T. Kobayashi, *ASME FED (Am Soc Mech Eng Fluids Eng Div)* Vol. 218 29-36 1995

Analysis of Orthogonal Micro-cutting Using Acoustic Emission, Y-E P. Chang, D. A. Dornfeld, M. Hashimura, *ASME MED (Am Soc Mech Eng Manuf En g Div)* Vol. 2, No. Vol. 1 229-244 1995

Stability of Two Stratified Liquid-metal Layers in a Uniform DC Magnetic Field, Y. Kishida, K. Takeda, M. Zeze, S. Asai, *ISIJ Int (Iron Steel Inst Jpn)* Vol. 35, No. 2 132-137 1995

Observation and Formulation of Two-dimensional Speckle in the Space and the Time Domains, M. Tomita, T. Matsumoto, *J Opt Soc Am B* Vol. 12, No. 1 170-174 1995

The Model of an Oscillation Frequency Shift of a Quartz Resonator Caused by Particle Adhesion in a Liquid, T. Sakon, K. Kawakami, M. Sakashita, *Journal of the Electrochemical Society of Japan* Vol. 63, No. 11 1027-1032 1995

Peculiar Behavior of Disc Drag during Force Measurements for Supercavitating Hydrofoils, H. Naka, H. Kuwako, Y. Ito, H. Ogata, R. Oba, *JSME Int J Ser B (Jpn Soc Mech Eng)* Vol. 38, No. 2 252-257 1995

New radiation Thermometer for Near Room Temperature, T. Iuchi, A. Jono, *Measurement* Vol. 16, No. 4 257-263 1995

Frequency Shaping of a Hydraulic Speaker using H^∞ control theory, T. Fujii, T. Tsujino, T. Sugano, H. Kitayama, M. Hayashi, N. Shikano, *Proc Am Control Conf* Vol. 1995, No. Vol. 5 3842-3846 1995

Proposal of Practical Design Indices for Teleoperation Master Arm, R. Takada, M. Sumi, N. Hiramitsu, T. Muramatsu, *Proc IEEE Int Conf Rob Autom* Vol. 1995, No. Vol. 3 2407-2412 1995

Effects of Vortex Excitation on the Response of Flexible Risers, T. Sakamoto, R. E. Hobbs, *Proc Int Conf Offshore Mech Arct Eng* Vol. 14th, No. Vol. 1 Pt B 331-339 1995

Silicon Accelerometer Based on Thermopiles, U. A. Dauderstaedt, P. H. S. Devries, R. Hiratsuka, P. M. Sarro, *Sens Actuators A* Vol. 46, No. 1/3 201-204 1995

The Response of a Centrifugal Pump to Fluctuating Rotational Speed, H. Tsukamoto, H. Yoneda, K. Sagara, *Trans ASME J Fluids Eng* Vol. 117, No. 3 479-484 1995

Testing

A Standard Sample Preparation Method for the Determination of Metal Impurities on a Silicon Wafer by Total Reflection X-Ray Fluorescence Spectrometry, Y. Mori, K. Shimanoe, T. Sakon, *Anal Sci* Vol. 11, No. 3 499-504 1995

Photoluminescence Study of Defects in Ion-implanted Thermal SiO₂ Films, H. Nishikawa, E. Watanabe, D. Ito, M. Takiyama, A. Ieki, Y. Ohki, *J Appl Phys* Vol. 78, No. 2 842-846 1995

Photoluminescence Study on Point Defects in SIMOX Buried SiO₂ Film, K. S. Seol, A. Ieki, Y. Ohki, H. Nishikawa, M. Tachimori, *Mater Sci Forum* Vol. 196/201, No. Pt 4 1909-1913 1995

Study of Defect Behavior in Ion-implanted Si Wafers by Slow Positron Annihilation Spectroscopy, M. Fujinami, S. Hayashi, *Mater Sci Forum* Vol. 196/201, No. Pt 3 1165-1169 1995

Positron Annihilation Lifetime Study of Irradiated Fe-Mo and Fe-Si Alloys, T. Kawaguchi, F. Hori, Y. Kamimura, M. Takenaka, H. Abe, E. Kuramoto, *Mater Sci Forum* Vol. 175/178, No. Pt 1 419-422 1995

A Study of Defects in SiO₂ Films on Si by Variable-energy Positron Annihilation Spectroscopy, M. Fujinami, N. B. Chilton, *Mater Sci Forum* Vol. 175/178, No. Pt 1 157-160 1995

Vacancy-oxygen Complexes in Si Probed by Positron Annihilation, A. Uedono, T. Kawano, X. H. Li, L. Wei, S. Tanigawa, A. Ikari, K. Kawakami, H. Haga, H. Itoh, *Mater Sci Forum* Vol. 175/178, No. Pt 1 553-556 1995

Image Analysis for Back Scattered Electrons from Iron Alloys in Scanning Electron Microscopy, S. Suzuki, H. Hamada, *Mater*

Trans JIM (Jpn Inst Met) Vol. 36, No. 1 76-79 1995

Construction

Development of Casing Design Program for Directional and Horizontal Wells, K. Maruyama, Y. Tsukano, M. Ueno, R. Inowaki, *ASME PD (Am Soc Mech Eng Pet Div)* Vol. 65 205-214 1995

The Experimental Study on Fatigue Characteristics of Steel Damper Used for Seismic Isolation Device, M. Moteki, S. Ohtsuka, K. Hayakawa, A. Nakae, S. Noguchi, M. Sugisawa, H. Hasegawa, *ASME PVP (Am Soc Mech Eng Press Vessels Pip Div)* Vol. 319 171-176 1995

Rebound Due to Partial Unloading and Subsequent Recompression Behavior in 1-D Consolidation, H. Yoshikuni, T. Moriwaki, S. Ikegami, H. Nishiumi, *Compression Consol Clayey Soils* Vol. 1 233-238 1995

System Truss Structure Using Computer Technologies, M. Fujita, M. Iwata, M. Yoneda, A. Wada, *Comput Civ Build Eng* Vol. 1 457-462 1995

Deterioration of RC Building under Marine Environment, T. Oshiro, Y. Yamada, S. Tanikawa, N. Goto, *Concr Under Sev Cond Environ Load* Vol. 1 523-532 1995

Structural Steels in the New Iron Age, K. Fukuda, *Nippon Steel Technical Report* 66 1-6 1995

Development of New Type of Steel-element-concrete Composite Bridge Pier, T. Katayama, A. Kornatsu, K. Nishiumi, H. Hirata, T. Kuga, *Nippon Steel Technical Report* 66 7-16 1995

Development and Commercialization of Steels for Construction Use, T. Yamaguchi, T. Okada, H. Hasegawa, H. Mochizuki, K. Hagiwara, N. Uno, K. Keira, *Nippon Steel Technical Report* 66 17-28 1995

Development of Fire-resistant Steel Frame Building Structures, M. Fushimi, K. Keira, H. Chikaraishi, *Nippon Steel Technical Report* 66 29-36 1995

Development of Earthquake-resistant, Vibration Control, and Base Isolation Technology for Building Structures, M. Sugisawa, E. Saeki, H. Nakamura, R. Hirabayashi, Y. Ichikawa, M. Ueki, M. Hokari, *Nippon Steel Technical Report* 66 37-46 1995

Development of Composite Structures at Building Construction Division of Nippon Steel, H. Nakamura, H. Yoshikawa, T. Ohya, S. Maruyama, M. Hokari, *Nippon Steel Technical Report* 66 47-54 1995

Development of Elevated Steel Structures In Cities, Y. Fujita, T. Nose, S. Machino, S. Nakazawa, H. Asaoka, H. Yasunami, T. Mod, T. Sasaki, *Nippon Steel Technical Report* 66 55-64 1995

Development of Copper Precipitation-hardened 780 N/mm² High-strength Steel with Lower Preheating Temperature Characteristics, Y. Okamura, M. Tanaka, M. Okushima, R. Yamaba, H. Tamehiro, H. Inoue, T. Kasuya, A. Seto, *Nippon Steel Technical Report* 66 65-76 1995

Development of Converter Relining Robot System, Y. Itou, M. Kurahashi, *Nippon Steel Technical Report* 66 77-81 1995

Development and Application of High-speed Tool Steel Roll in Hot Strip Rolling, M. Hashimoto, T. Kawakami, T. Oda, R. Kurahashi, K. Hokimoto, *Nippon Steel Technical Report* 66 82-90 1995

Chemical Products

Modification of the Surface of Carbon Materials with Hydrogen or Argon Ion Irradiation, M. Okada, K. Tanaka, I. Jitsuha, S. Amemiya, *Diam Films Technol* Vol. 5, No. 6 325-337 1995

Influence of Surface Treatment on the Mechanical Properties of Pitch-based Carbon Fibers and CFRP, H. Tadokoro, H. Kimura, K. Kubomura, *Extended Abstr Program Bienn Conf Carbon* Vol. 22nd(1995) 20-21 1995

Hydrogen Purification with Metal Hydride Sintered Pellets using Pressure Swing Absorption Method, T. Saitou, K. Sugiyama, *J Alloy Compd* Vol. 231, No. 1/2 865-870 1995

Mechanical Properties of CFRP Additionally Reinforced with CFRP Rods, T. Yamada, K. Yamada, K. Kubomura, *J Compos Mater* Vol. 29, No. 2 179-194 1995

Polycarbonate-polydimethyl Siloxane Segmented Copolymers with Improved Hydrolytic Stability, D. M. Knauss, T. Yamamoto, T. H. Yoon, J. E. Mcgrath, *Polym Mater Sci Eng* Vol. 72 232-233 1995

Toughened Polymer Blends Composed of a Ductile Styrene-butadiene-styrene Matrix with Brittle Methyl Methacrylate-styrene Particles, I. Yamaoka, *Polymer* Vol. 36, No. 17 3359-3368 1995

Comparison of Liquefaction Catalysts Examined in 1t/d PSU, T. Takakawa, H. Yoshida, K. Imada, K. Inokuchi, Y. Nogami, T. Kai, *Proc Annu Int Pittsburgh Coal Conf* Vol. 12th 1159-1164 1995

Electronic Characteristics of Various Carbon Materials for Lithium Rechargeable Batteries, T. Idiomi, K. Suzuki, Y. Matsuda, *Synth Met* Vol. 73, No. 1 9-20 1995

Titanium

Phase Stability of β phase in TiAl Intermetallic, N. Masahashi, Y. Mizuhara, *Gamma Titan Aluminides* 165-172 1995

Oxide Dispersion in Direct-cast Gamma TiAl-based Alloy, T. Hanamura, K. Hashimoto, *High Temp Ordered Intermet Alloy* 6 Part 2 775-780 1995

Influence of Microstructure on the Sustained-load Cracking Characteristics of γ -base TiAl alloys, R. Gnanamoorthy, Y. Mutoh, Y. Mizuhara, *Intermetallics* Vol. 3, No. 4 271-280 1995

Sloping Plateaux in the Pressure-composition Isotherms of the Titanium-hydrogen and Ti₉₄Al₆-hydrogen Systems, S. Naito, M. Yamamoto, M. Doi, M. Kimura, *J Chem Soc Faraday Trans* Vol. 91, No. 22 4143-4147 1995

Dissolution of Hydrogen and Deuterium in Titanium, Ti₉₄Al₆ and Ti₃Al, S. Naito, M. Yamamoto, M. Doi, M. Kimura, *J Chem Soc Faraday Trans* Vol. 91, No. 13 1967-1973 1995

Flexural Strength of Gamma Base Titanium Aluminides at Room and Elevated Temperatures, R. Gnanamoorthy, Y. Mutoh, Y. Mizuhara, *Mater Sci Eng A* Vol. 197, No. 1 69-77 1995

Effects of Chromium Addition on the Sustained-load Cracking Characteristics of Gamma-base Titanium Aluminides, R. Gnanamoorthy, Y. Mutoh, Y. Mizuhara, *Mater Sci Eng A* Vol. 194, No. 1 35-41 1995

Fracture Toughness of Gamma-Base Titanium Aluminides, R. Gnanamoorthy, Y. Mutoh, N. Masahashi, Y. Mizuhara, *Metall Mater Trans A* Vol. 26, No. 2 305-313 1995

Titanium Alloy Bar Suitable for Highly Efficient Wear-resistance Treatment, I. Takayama, T. Yamazaki, *SAE Tech Pap Ser (Soc Automot Eng)* RP SAE-950940 8p 1995

Influence of Lamellar Lath Orientation on the Fatigue Crack Growth Behavior of Gamma Base Titanium Aluminides, R. Gnanamoorthy, Y. Mutoh, K. Hayashi, Y. Mizuhara, *Scr Metall Mater* Vol. 33, No. 6 907-912 1995

Weld Cracking and Solidification Behavior of Titanium Alloys, H. Inoue, T. Ogawa, *Weld J* Vol. 74, No. 1 21.s-27.s 1995

New Materials

Current Leads Consisting of QMG-YBa₂Cu₃O_x, K. Kimura, M. Sawamura, K. Miyamoto, M. Hashimoto, K. Watanabe, S. Awaji, N. Kobayashi, *Adv Supercond* Vol. 7, No. 2 851-854 1995

Joining of YBa₂Cu₃O_x with High Critical Current, K. Kimura, K. Miyamoto, M. Hashimoto, *Adv Supercond* Vol. 7, No. 2 681-684 1995

Pt Addition Effects and Acicular Crystal Growth of Y₂BaCuO₇ in the QMG Materials, M. Tanaka, M. Morita, S. Takebayashi, S. Hayashi, Y. Takagi, M. Hashimoto, *Adv Supercond* Vol. 7, No. 2 693-696 1995

- Direct Observation of Melt Growth Process of QMG-YBCO Crystals, S. Takebayashi, M. Tanaka, M. Hashimoto, *Adv Supercond* Vol. 7, No. Vol. 2 685-688 1995
- Axial Creep-rupture Time of Boron-aluminum Composites, K. Goda, J. Hamada, *ASME PVP (Am Soc Mech Eng Press Vessels Pip Div)* Vol. 302 171-177 1995
- Critical Current Density of Superconducting NbTi/Nb/Cu Multilayer Composite Sheets, I. Itoh, T. Sasaki, *Cryogenics* Vol. 35, No. 6 403-404 1995
- Multilayer NbTi Superconducting Magnetic Shields via Interfacial Pinning, T. Sasaki, I. Itoh, *Cryogenics* Vol. 35, No. 5 335-338 1995
- Development of 10-kA Nb₃Al Coil, M. Sugimoto, T. Sasaki, H. Tsuji, Y. Yamada, K. Takahashi, T. Fujioka, T. Hanai, S. Oukita, T. Horiya, *IEEE Trans Appl Supercond* Vol. 5, No. 2 Pt 1 897-900 1995
- Evaluation of Fixed Charge and Interface Trap Densities in SIMOX Wafers and Their Effects on Device Characteristics, S. Masui, T. Nakajima, K. Kawamura, T. Yano, I. Hamaguchi, M. Tachimori, *IEICE Trans Electron (Inst Electron Inf Commun Eng)* Vol. E78-C, No. 9 1263-1272 1995
- Mechanical Properties of b-SiAlON Ceramics Joined Using Composite b-SiAlON-Glass Adhesives, P. A. Walls, M. Ueki, *J Am Ceram Soc* Vol. 78, No. 4 999-1005 1995
- Adsorption Species of Transition Metal Ions on Silicon Wafer in SC-1 Solution, Y. Mori, K. Uemura, K. Shimanoe, T. Sakon, *J Electrochem Soc* Vol. 142, No. 9 3104-3109 1995
- Slurry Processing for Fabrication of SiC Whisker-reinforced Si₃N₄ Composites, Y. Sato, M. Ueki, K. Shintani, *J Mater Sci* Vol. 30, No. 5 1373-1378 1995
- Proton Irradiation Effects on Effective Activation Energies of QMG-YBCO, S. Okayasu, Y. Kazumata, E. Teshima, M. Tanaka, M. Hashimoto, *JAERI-REVIEW* 95-17 63-64 1995
- Influence of the Seed Face Polarity on the Sublimation Growth of a-SiC, J. Takahashi, N. Ohtani, M. Kanaya, *Jpn J Appl Phys Part 1* Vol. 34, No. 9A 4694-4698 1995
- Current-path Observation in Low-dose SIMOX (Separation by Implanted Oxygen) Buried-SiO₂ Layer, K. Kajiyama, Y. Hashiguchi, Y. Ikematsu, I. Hamaguchi, T. Yano, T. Nakajima, S. Masui, K. Kawamura, M. Tachimori, *Jpn J Appl Phys Part I* Vol. 34, No. 6A 3059-3064 1995
- Dislocation Density Reduction in SIMOX (Separation by Implanted Oxygen) Multi-energy Single Implantation, I. Hamaguchi, T. Fujita, T. Yano, K. Kajiyama, S. Hayashi, *Jpn J Appl Phys Part I* Vol. 34, No. 6A 2989-2993 1995
- Role of Point Defects in Dielectric Breakdown of SiO₂ Formed by Plasma-enhanced Chemical Vapor Deposition of Tetraethoxysilane, K. Ishii, D. Isshiki, Y. Ohki, H. Nishikawa, M. Takiyama, *Jpn J Appl Phys Part 1* Vol. 34, No. 1 205-211 1995
- Giant Magnetoresistance of (110)-Oriented NiFe/Cu Multilayer Grown on MgO (110), S. Takebayashi, T. Mukai, *Jpn J Appl Phys Part 2* Vol. 34, No. 7B L886-L888 1995
- Statistical Properties of the Tensile Strength of B/Al Composites at Elevated Temperatures, K. Goda, J. Hamada, H. Fukunaga, *JSME Int J Ser A (Jpn Soc Mech Eng)* Vol. 38, No. 4 616-624 1995
- Influence of Point Defect Concentration in Growing Cz-Si on the Formation Temperature of the Defects Affecting Gate Oxide Integrity, T. Iwasaki, H. Harada, H. Haga, *Mater Sci Forum* Vol. 196/201, No. Pt 4 1731-1735 1995
- Positron and Positronium in Free Volume in Oxides: Silica Glass and Neutron-Irradiated Alumina, M. Hasegawa, M. Tabata, T. Miyamoto, S. Yamaguchi, Y. Nagashima, T. Hyodo, M. Fujinami, *Mater Sci Forum* Vol. 175/178, No. Pt 1 269-278 1995
- Pressureless-sintered Boron Nitride with Limited Content of Boric Oxide, M. Hubacek, M. Ueki, *Mater Sci Res Int* Vol. 1, No. 4 209-212 1995
- Modeling and Monitoring of Flow Behavior of Advanced Materials in Melt Spinning: A Progress Report, A. A. Tseng, Y. Sato, J. S. Chen, *Melt Spinn Strip Cast Slab Cast* 195-204 1995
- Fluid and Heat Flow in Planar-flow Melt Spinning: Experiments and Modeling, P. H. Steen, T. Ibaraki, *Melt Spinn Strip Cast Slab Cast* 159-171 1995
- Comparison of Pinning Parameters between Low-Tc Superconductors and YBa₂Cu₃O_{7-δ}, H. Kuepfer, R. Kresse, R. Meier-Hirmer, N. W. Jah, T. Wolf, A. A. Zhukov, T. Matsushita, K. Kimura, K. Salama, *Phys Rev B* Vol. 52, No. 10 7689-7700 1995
- Characterization of Density of Trap States at the Back Interface of SIMOX Wafers, A. Takubo, T. Hanajiri, T. Sugano, K. Kajiyama, *Proc Int Conf Microelectron Test Struct* Vol. 1995 77-80 1995
- Second Hyperpolarizabilities of p-conjugated Silicon-ring, Y. Matsuzaki, M. Nakano, K. Yamaguchi, K. Tanaka, T. Yamabe, *Synth Met* Vol. 71, No. 1/3 1737-1738 1995
- Thermal Diffusivity in Poly- and Single-crystalline YBCO Superconductors, T. Fujiyoshi, H. Ohsumi, H. Kubota, M. Onuki, M. Hashimoto, K. Miyamoto, *Synth Met* Vol. 71, No. 1/3 1609-1610 1995
- Critical Current Density of Melt Processed YBa₂Cu₃O_x Bulk Superconductors, K. Kimura, K. Miyamoto, M. Hashimoto, T. Matsushita, *The Transactions of the Institute of Electrical Engineers of Japan A* Vol. 115, No. 3 245-250 1995

Computers and Systems

- Development of Non-contact Transport System along Vertical Guideway using QMG Bulk Materials, S. Sato, K. Sato, K. Fuzihira, M. Hashimoto, K. Miyamoto, *Adv Supercond* Vol. 7, No. Vol. 2 1251-1254 1995
- Development of a Rapid Determination System for Phosphorus and Sulfur in Iron, Y. Hayakawa, A. Ono, M. Midorikawa, *Anal Sci* Vol. 11, No. 4 657-661 1995
- Torque Resistance of Tubular Connections under Simulated Well Conditions, E. Tsuru, M. Oka, K. Maruyama, *ASME PD (Am Soc Mech Eng Pet Div)* Vol. 65 119-125 1995
- Numerical Liouville Approach. Third-order Nonlinear Optical Susceptibilities in THG, EFISH and DFWM, M. Nakano, K. Yamaguchi, Y. Matsuzaki, K. Tanaka, T. Yamabe, *Chem Phys Lett* Vol. 233, No. 4 411-419 1995
- Numerical Liouville Approach: Formulation of Third-order Nonlinear Optical Susceptibilities, M. Nakano, K. Yamaguchi, Y. Matsuzaki, K. Tanaka, T. Yamabe, *J Chem Phys* Vol. 102, No. 7 2986-2995 1995
- Numerical Liouville Approach: Three-type Analysis of Virtual Excitation Processes of Third-order Nonlinear Optical Spectra in Third-harmonic Generation, M. Nakano, K. Yamaguchi, Y. Matsuzaki, K. Tanaka, T. Yamabe, *J Chem Phys* Vol. 102, No. 7 2996-3004 1995
- Application of Nonlinear Mixed Integer Programming as Optimization Procedure, T. Mimaki, R. Inowaki, G. Yagawa, *JSME Int J Ser A (Jpn Soc Mech Eng)* Vol. 38, No. 4 465-472 1995
- Development of Automatic Operation System for Coke Oven Machines at Yawata Works of Nippon Steel Corporation, M. Matsunaga, H. Uematsu, Y. Nakagawa, Y. Ishiharaguchi, *Proc Ironmak Conf* Vol. 54 445-448 1995
- Utilization of Advanced Scientific Computation in Developing Materials and Processes, T. Matsumiya, *Nippon Steel Technical Report* 67 1-6 1995
- Development and Application of Simulator for Analyzing Molten Steel Flow and Inclusion Behavior in Continuous Casters, I. Sawada, K. Okazawa, E. Takeuchi, K. Shigemitsu, H. Tanaka, *Nippon Steel Technical Report* 67 7-12 1995
- Present Status of Electromagnetic Field Analysis and Its Application to Flow Control in Continuous Caster Molds, K. Umetsu, K. Fujisaki, K. Wajima, S. Nishi, K. Sawada, T. Ueyama, *Nippon Steel Technical Report* 67 13-20 1995
- Development and Application of Computer Simulation Techniques for Analyzing Composition, Particle Size Distribution, and Amount of Nonmetallic Inclusions in Steel, W. Yamada, T. Matsumiya, S. Fukumoto, M. Wajima, H. Tanaka, *Nippon Steel Technical Report* 67 21-28 1995
- Analysis of Long Steel Product Rolling by Rigid-plastic Finite Element Method, K. Seki, K. Yamada, S. Ida, S. Hamauzu, S. Hayashi, M. Ataka, *Nippon Steel Technical Report* 67 29-36 1995
- 3-D FEM Analysis of Sheet Metal Deep Drawability and Stretchability — Application of FEM Analysis to Research Formability of Sheet Metals —, T. Yoshida, K. Hashimoto, M. Usuda, *Nippon Steel Technical Report* 67 37-42 1995
- Direct Observation and Simulation of Blow Molding Process, S. Imamura, T. Kaneta, K. Kushima, *Nippon Steel Technical Report* 67 43-48 1995
- Development of Mathematical Model for Predicting Transformation of High-carbon Steel During Cooling on Runout Table and Its Application to On-line Temperature Control of Hot Strip Mill, M. Suehiro, T. Oda, T. Senuma, S. Konishi, *Nippon Steel Technical Report* 67 49-56 1995
- Building a Network-based Office Environment, M. Noguchi, *Nippon Steel Technical Report* 67 1-6 1995
- Development and Application of Dynamic System Simulator, Y. Konno, M. Shioya, T. Ueyama, *Nippon Steel Technical Report* 67 63-68 1995
- Development and Application of Character Recognition System in Factory Automation Field, S. Takeuchi, O. Taniguchi, S. Yamaguchi, M. Maeda, *Nippon Steel Technical Report* 67 69-74 1995

Electronics

- Nonlinear Optical Properties of Silicon Quantum Crystallites: Core and Surface States, Y. Kanemitsu, T. Matsumoto, *22nd Int Conf Phys Semicond* 1995 Vol. 3 2153-2156 1995
- Generation of Homogeneous High Magnetic Fields within Superconducting 'Swiss roll', T. Sasaki, K. Iwata, H. Otsuka, I. Itoh, *Cryogenics* Vol. 35, No. 5 339-343 1995
- An On-chip High-voltage Generator Circuit for EEPROMs with a Power Supply Voltage below 2V, K. Sawada, Y. Sugawara, S. Masui, *Dig Tech Pap Symp VLSI Circuits* Vol. 1995 75-76 1995
- A Single-layer Slotted Leaky Waveguide Array Antenna for Mobile Reception of Direct Broadcast from Satellite, J. Hirokawa, M. Ando, N. Goto, N. Takahashi, T. Ojima, M. Uematsu, *IEEE Trans Veh Technol* Vol. 44, No. 4 749-755 1995
- Optically Induced Absorption in Porous Silicon and Its Application to Logic Gates, T. Matsumoto, M. Daimon, H. Mimura, Y. Kanemitsu, N. Koshida, *J Electrochem Soc* Vol. 142, No. 10 3528-3533 1995

- Wide-viewing-angle Display Mode for Active-matrix LCDs using a Bend-alignment Liquid-crystal Cell, T. Miyashita, T. Uchida, P. J. Vetter, Y. Yamaguchi, *J Soc Inf Disp* Vol. 3, No. 1 29-34 1995
- A CAICISS Study of the Sputter Cleaning and Modification of the GaAs(001) Surface, N. B. Chilton, K. Tanaka, *Journal of the Surface Science Society of Japan* Vol. 16, No. 7 458-462 1995
- Quasi-phase-matched Second-harmonic Generation in a Periodic-lens Sequence Waveguide with a Relatively Wide Wavelength-tuned Width, Y. Yamamoto, N. Yamada, S. Yamaguchi, K. Ueda, T. Matsumoto, *Jpn J Appl Phys Part 1* Vol. 34, No. 12A 6382-6384 1995
- Effects of Alkaline-earth Elements on Refractive Index Profile and Domain Inversion of Rb-Exchanged Waveguide in KTiOPO_4 , N. Yamada, Y. Yamamoto, *Jpn J Appl Phys Part 1* Vol. 34, No. 12A 6407-6409 1995
- New Fabrication Method and Electrical Characteristics of Conical Silicon Field Emitters, G. Hashiguchi, H. Mimura, *Jpn J Appl Phys Part 1* Vol. 34, No. 3 1493-1497 1995
- Photo- and Electroluminescence from Electrochemically Polished Silicon, T. Matsumoto, H. Mimura, Y. Kanemitsu, *Jpn J Appl Phys Part 2* Vol. 34, No. 10B L1318-L1321 1995
- Fabrication and Emission Characteristics of Polycrystalline Silicon Field Emitters, G. Hashiguchi, H. Mimura, H. Fujita, *Jpn J Appl Phys Part 2* Vol. 34, No. 7B L883-L885 1995
- Growth of Nitrogen-doped ZnSe and Inhibition of Hydrogen Passivation of Nitrogen Acceptor by Photo-assisted Metal-organic Chemical Vapor Deposition, Y. Fujita, T. Terada, T. Suzuki, *Jpn J Appl Phys Part 2* Vol. 34, No. 8B L1034-L1036 1995
- Photoluminescence from Silicon Quantum Crystallites: Core and Surface States, Y. Kanemitsu, H. Uto, T. Matsumoto, *Jpn J Appl Phys Suppl* No. 34-1 89-91 1995
- Oscillatory Shear Alignment of a Liquid Crystalline Polymer, D. J. Alt, S. D. Hudson, R. O. Garay, K. Fujishiro, *Macromolecules* Vol. 28, No. 5 1575-1579 1995
- Photoluminescence and Electron-spin-resonance Studies of Defects in Ion-implanted Thermal SiO_2 Films, H. Nishikawa, H. Fukui, E. Watanabe, D. Ito, M. Takiyama, A. Ieki, Y. Ohki, *Mater Sci Forum* Vol. 196/201, No. Pt 1 97-101 1995
- Collimation of Emissions from a High-power Multistriple Laser-diode Bar with Multiprism Array Coupling and Focusing to a Small Spot, S. Yamaguchi, T. Kobayashi, Y. Saito, K. Chiba, *Opt Lett* Vol. 20, No. 8 898-900 1995
- Development of Ultra-fine Pitch Ball Bonding Technology, K. Tatsumi, T. Uno, O. Kitamura, Y. Ohno, T. Katsumata, M. Furusawa, *Proc IEEE/CPMT Int Electron Manuf Technol Symp* Vol. 17th 295-298 1995
- New Mechanism to Balance the Torque Induced in a Goniometer Axis, T. Kikuchi, T. Mizutani, Y. Takagi, S. Sasaki, T. Mori, H. Kohzu, *Rev Sci Instrum* Vol. 66, No. 2 Pt 2 1706-1708 1995
- Upgrade of Triple-axis/four-circle Diffractometer at PF-BL3A, Y. Takagi, T. Kikuchi, T. Mizutani, M. Imafuku, S. Sasaki, T. Mori, *Rev Sci Instrum* Vol. 66, No. 2 Pt 2 1802-1805 1995
- Monolithic Fabrication of Polycrystalline Silicon Field Emitters and Thin Film Transistors, G. Hashiguchi, H. Fujita, *Tech Dig Sens Symp* Vol. 13th 21-24 1995