

CONTENTS

Symposium of Property and Application of Dielectric and Ferroelectric Materials

Preface	1047
Piezoelectric Properties of Alkaline Niobate Perovskite Ceramics	1049
Masahiko Kimura, Akira Ando, Kosuke Shiratsuyu and Yukio Sakabe	
On the Theoretical Models of Ferroelectric Thin Films and Graded Ferroelectrics	1055
Yoshihiro Ishibashi	
Recent Development Trend of Piezoelectric Single Crystals: A Review	1059
Yohachi (John) Yamashita, Yasuharu Hosono and Zuo-Guang Ye	
Effect of Rare Earth Oxide, Ho, on dc Electrical Degradation for Ni-MLCC	1067
Hirokazu Chazono	
Structure and Reliability Issues of (Bi, Nd)₄Ti₃O₁₂ Ferroelectric Thin Films	1073
Di Wu, Aidong Li and Naiben Ming	
Temperature-dependent Ferroelectric Properties of (Pb_{0.75}La_{0.25})TiO₃ Thin Films	1077
S. T. Zhang, G. L. Yuan, H. W. Cheng, Y. F. Chen, Z. G. Liu and N. B. Ming	
CO₂ Laser Annealing Effect of Electrical Properties and Microstructures on Pb(Zr,Ti)O₃ Thick Films Prepared by Aerosol Deposition	1081
So Baba, Jun Akedo, Masahiro Tsukamoto, Nobuyuki Abe and Shoji Miyake	
Dielectric Film by Aerosol Deposition Method for Microwave Filter Application	1085
Yoshihiko Imanaka and Jun Akedo	
Theory of Dielectric Constant in Porous Materials	1089
Iwan Sumirat, Yuko Ando and Shuji Shimamura	
Microwave Characterization of (La,Sr)(Al,Ta)O₃ Using TE₀₁₁ Mode Dielectric Resonator	1093
M. V. Jacob, J. Mazierska and J. Krupka	
Phase Transformation in Aerosol Deposition Method of Aluminum Nitride	1097
Atsushi Iwata, Jun Akedo and Maxim Lebedev	
Preparation of Ferroelectric PbSc_{0.5}Ta_{0.5}O₃ Thin Films by Pulsed Laser Deposition	1101
Shuichi Murakami, Daniel Popovici, Kazuo Satoh, Koji Inoue, Minoru Noda and Masanori Okuyama	
Synthesis of Perovskite Oxide Films for Memory Applications	1105
T. Matsumoto, A. Niino, S. Baba, H. Saito, N. Numata and S. Miyake	
Effect of Buffer Layer of Undoped Bi₄Ti₃O₁₂ Thin Films Prepared by Metalorganic Chemical Vapor Deposition ...	1109
Tohru Higuchi, Yuji Hachisu, Makoto Nakamura and Takeyo Tsukamoto	
Ferroelectricity and Electronic Structure of Sm-Doped SrBi₂Ta₂O₉ Ceramics	1113
Tohru Higuchi, Shigetaka Watanabe, Nobumasa Ohtake and Takeyo Tsukamoto	
Ferroelectricity of C-Axis Oriented Ba₂NaNb₅O₁₅ on La-doped SrTiO₃ Prepared by Pulsed Laser Deposition	1117
Tohru Higuchi, Minoru Sagawa, Takayuki Kamei and Takeyo Tsukamoto	
Orientation Control of Bi₄Ti₃O₁₂ Thin Film by Two-Dimensional RF Magnetron Sputtering	1121
Tohru Higuchi, Mayumi Iwasa, Kazuhide Kudoh and Takeyo Tsukamoto	
Superparaelectric State of LiTaO₃ Nanoparticles Embedded in a Mesoporous Silicate	1125
S. Kawakami, S. Kohiki, S. Nogami, H. Shimooka, M. Okui, M. Mitome, S. Fukushima, Y. Bando and S. Takada	
Synthesis and Electric Properties of M₂BiNb₅O₁₅(M=Na, K) Tetragonal Tungsten Bronze Type Oxides	1129
Yutaka Iwai and Hisao Takuchi	
Study of Acoustic Anomalies in Pb(Mg_{1/3}Nb_{2/3})O₃-PbTiO₃ Relaxor Single Crystal by Brillouin Scattering	1131
Ghulam Shabbir, Chude Feng and Seiji Kojima	

500MHz-18GHz Microwave Absorber Using Magnetic-Dielectric Composite Material	1135
Takashi Miura, Hirotake Okino and Takashi Yamamoto	
Preparation of Oriented PZT Films via Sol-Gel Method and Their Dielectric and Piezoelectric Properties	1139
Yutaka Ohya, Tomoharu Tamakoshi, Takayuki Ban and Yasutaka Takahashi	
Domain Structures of Pb(Mg_{1/3}Nb_{2/3})O₃-PbTiO₃ Single Crystals for Various Cooling Rate Observed using Contact Resonance PFM	1143
Junichi Sakamoto, Hirotake Okino and Takashi Yamamoto	
Micro-Brillouin Scattering Study of Pb[(Zn_{1/3}Nb_{2/3})_{0.91}Ti_{0.09}]O₃ Relaxor Ferroelectric Crystals	1147
Do Han Kim, Jae-Hyeon Ko and Seiji Kojima	
Effect of Y Doping on Mn Valence in BaTiO₃ Dielectric System	1151
Shigeki Sato, Takeshi Nomura, Keiichi Fukuda and Izumi Nakai	
Effect of A-Site Substitution on Electrical Properties of Pb(Zr_xTi_{1-x})O₃ Thin Films with Chemical Solution Deposition	1155
Hisao Suzuki, Daisuke Suzuki, Tomoya Ohno, Toshitaka Ota, Masanori Fuji and Minoru Takahashi	
Measurement of Space Charge in Insulating Polymer by Pulsed Electroacoustic Method	1159
Yutaka Kamei and Shigetaka Fujita	
MnCo₃ and CaZrO₃ Additive Effects on Electrical Properties of BaTiO₃ Ceramics	1163
Vojislav Mitic, Vesna Paunovic, Ljubomir Vracar and Ljiljana Zivkovic	
The Influence of CaZrO₃ on Microstructure and Dielectric Properties of BaTiO₃	1167
V. Mitic, V. B. Pavlovic, B. Stojanovic and Z. Nikolic	
Nonlinear Characteristics of Piezoelectric Ceramics	1171
Akira Ando, Kosuke Shiratsuyu and Yukio Sakabe	
Influence of mm-wave Annealing on Ferroelectrics Properties of PZT Films Fabricated by AD Method	1175
M. Mori, S. Miyake, M. Tsukamoto, Y. Makino, N. Abe and J. Akedo	
Preparation of Texture Controlled Lead Zirconate Titanate Thick Films with Seed Layer	1179
Takashi Iijima, Sachiko Ito, Hirofumi Matsuda, Masanao Tani, Masahiro Akamatsu and Yoshiaki Yasuda	
Magnitudes of Nonlinear Susceptibility Coefficients for First Order Transitions in Bulk Ferroelectrics	1183
J. F. Webb	
Evaluation of Domain Observation in Pb(Zn_{1/3}Nb_{2/3})O₃-20%PbTiO₃ by Kelvin Force Microscopy	1187
M. Iwata, M. Maeda, I. Suzuki, N. Yasuda and Y. Ishibashi	
Structure and Dielectric Properties of Co-Sputtered (Ba_{0.5}Sr_{0.5})TiO₃ Thin Films	1191
Chen Xiaofeng, Zhu Weiguang and Lim Su Yin	
Preparation of Alumina Thick Films by Aerosol Deposition Method for Integrated RF Modules	1195
Song-Min Nam, Naoko Mori, Hirofumi Kakemoto, Satoshi Wada, Jun Akedo and Takaaki Tsurumi	
Domain Size Dependence on Piezoelectric Property of BaTiO₃ Single Crystals with Engineered Domain Configuration	1199
Satoshi Wada, Koichi Yako, Hirofumi Kakemoto and Takaaki Tsurumi	
Growth of Silver Niobate Based Single Crystals from Their Stoichiometric Composition Melts	1203
Satoshi Wada, Shingo Uraki, Hirofumi Kakemoto and Takaaki Tsurumi	
Size Effect on Dielectric Properties of Barium Titanate Fine Particles	1207
Takuya Hoshina, Hiroaki Yasuno, Song-Min Nam, Hirofumi Kakemoto, Takaaki Tsurumi and Satoshi Wada	
Ferroelectric Behavior in SrZrO₃/SrTiO₃ Artificial Superlattices	1211
Takakiyo Harigai, Daisuke Tanaka, Song-Min Nam, Hirofumi Kakemoto, Satoshi Wada and Takaaki Tsurumi	
Low Temperature Fabrication of BaTiO₃ Thick Films by Aerosol Deposition Method and Their Electric Properties	1215
Song-Min Nam, Hiroyuki Yabe, Hirofumi Kakemoto, Satoshi Wada, Takaaki Tsurumi and Jun Akedo	
Dielectric Spectra of (Ba_{0.6}Sr_{0.4})TiO₃ and Ba(Zr_{0.25}Ti_{0.75})O₃ Ceramics in RF Region Measured by Impedance Analyzers	1219
Jianyong Li, Hirofumi Kakemoto, Song-Min Nam, Satoshi Wada and Takaaki Tsurumi	

Frequency Dependence of Piezoelectric d-constant of PZT Ceramics Determined from Direct and Converse Effects	1223
T. Tsurumi, T. Sasaki, H. Kakemoto and S. Wada	
 <i>Symposium of Advanced Materials and Processing of Superconductors</i>	
Preface	1227
Development of Ag-sheathed Bi2223 Superconducting Wires	1229
K. Yamazaki, T. Kato, K. Ohkura, M. Ueyama, N. Ayai, H. Takigawa, E. Ueno, K. Hayashi and K. Sato	
Recent Processing Advances for Increased J_c in (Bi, Pb)₂Sr₂Ca₂Cu₃O_x Tapes	1235
Y. Yuan, J. Jiang, X.Y. Cai, T.G. Holesinger, Y. Huang, R. Parrella, V.A. Maroni, D.C. Larbalestier and E.E. Hellstrom	
Transition State of Phase Formation During Sintering Process Inside Ag-sheathed (Bi,Pb)2223 Tape	1241
Fumitake Nakao and Kozo Osamura	
Fabrication and Superconducting Properties of Suspension-spun MgB₂ Filament	1245
Tomoko Goto, Kazuo Watanabe and Gen Nishijima	
Effect of Post-annealing on Superconductive Properties of Dip-Coated Bi-2223 Tapes	1249
Masaki Sumida, Akiyoshi Matsumoto, Petre Badica and Hiroaki Kumakura	
Investigation of Crystal Defects in YBCO Films by Post-Annealing of Precursor Films Including BaF₂	1253
Ataru Ichinose, Akihiro Kikuchi, Takanobu Kiss, Kyoji Tachikawa, Shirabe Akita and Kiyoshi Inoue	
Fabrication of Sm123 Film on Ni Textured Substrate by PLD Method	1257
Toru Izumi, Katsuya Hasegawa, Shigenobu Asada, Teruo Izumi, Toshihiko Maeda and Yuh Shiohara	
Fabrication and Microwave Properties of Double Side Tl(Ba,Sr)₂Ca₂Cu₃O_y Films on LSAT Substrate	1261
A. Sundaresan, A. Iyo, Y. Tanaka, M. Murugesan, H. Obara, A. Saito and S. Ohshima	
Weak Ferromagnetism of La_{1.99}Sr_{0.01}CuO₄ Thin Films: Epitaxial Strain and Corrugation in CuO₂ Planes	1265
Ichiro Tsukada	
Preparation and Characterization of NdBa₂Cu₃O_{7.6} Thin Films on MgO Substrates with Ba₂NdTaO₆ Buffer Layers	1269
A. Noguchi, J. Kurian, T. Amemura, K. Tanabe, T. Morishita, N. Iwata, H. Yamamoto, M. Kusunoki, M. Mukaida and S. Oshima	
Narrowband Superconducting Filters for Mobile Communication	1273
M. V. Jacob, J. Mazierska and A. Knack	
YBCO Film Properties for 2GHz band Receivers with HTS Filters and the Filter Characteristics	1279
Kazunori Yamanaka, Akihiko Akasegawa, Teru Nakanishi and Manabu Kai	
High-T_c SQUIDS Magnetocardiography Systems	1285
Hong-Chang Yang, Shu-Yun Wang, J.C. Chen, M.J. Chen, C.S. Wu, H.E. Horng, Shu-Hsien Liao and Jen-Tzong Jeng	
Nondestructive Evaluation of Cracks with High-T_c SQUIDS and Perspective	1289
H.E. Horng, Jen-Tzong Jeng, Hong-Chang Yang and J.C. Chen	
Application of 60 mm-diameter Superconducting Bulk Magnet to Magnetron Sputtering	1293
U. Mizutani, H. Hazama, T. Matsuda, Y. Yanagi, Y. Itoh, H. Ikuta, A. Imai, A. Sekiguchi and K. Sakurai	
Construction of A Wide and Strong Magnetic Field Generator Using melt-processed High T_c Bulk Superconductors Arrayed in One Plane	1299
Tetsuo Oka, Kazuya Yokoyama and Koshichi Noto	
Flux Pinning Allowing Levitation Experiments at Liquid Oxygen Temperature	1305
M. Muralidhar, N. Sakai, M. Jirsa, M. Murakami and N. Koshizuka	
Pulsed Magnetization for Gd-Ba-Cu-O Bulk with a Couple of Vortex-type Coils	1311
H. Sugimoto, T. Ida, M. Izumi, Y. Akita, H. Matsuzaki, Y. Hondou, Y. Kimura, M. Miki, M. Murakami and M. Kitano	
Conductive Properties of ReO₃/SrCuO₂ Bilayered Films	1315
Kumiko Fukai, Motoshi Masui, Nobuyuki Iwata and Hiroshi Yamamoto	
Anomalous Oxygen Annealing Effects on (Cu,C)-1223	1319
Y. Kodama, M. Hirai, A. Iyo, Y. Tanaka and S. Tanemura	

Electronic Transport Properties of C₆₀ Derivative Self-Assembly Monolayer on Au Ultrathin Film	1323
Yoshiki Shimizu, Kenji Saito, Takuto Sakuma, Nobuyuki Iwata and Hiroshi Yamamoto	
Preparation of MgB₂/AlN/MgB₂ Multi-layers for Josephson Tunnel Junctions	1327
A. Saito, H. Shimakage, A. Kawakami, Z. Wang, M. Mukaida and S. Ohshima	
Preparation of Josephson Junctions by MOCVD Films	1331
Yuuichi Nakajima, Hiroshi Kokubun, Takashi Amemura, Nobuyuki Iwata, Yoshinobu Tarutani, Keiichi Tanabe, Tadataka Morishita and Hiroshi Yamamoto	
In-Phase Motion of Vortices in Intrinsic Josephson Junctions in Mesas of Bi₂Sr₂CaCu₂O_y Single Crystals	1335
Nazia Jabeen Ali, Yoshifumi Imai, Hirokazu Kaneoya, Akinobu Irie and Gin-ichiro Oya	
<i>In-situ</i> Characterization of Electronic Structure of Engineered Surfaces of c-axis YBCO films for Sandwich type Junctions	1339
K. Ohki, R. T. Widodo, T. Okuda, K. Obara, H. Sato, H. Akoh and N. Terada	
Interaction between Optical Phonons and ac Josephson Oscillations in Intrinsic Josephson Junctions of (Bi_{1-x}Pb_x)₂Sr₂CaCu₂O_y	1345
Hirokazu Kaneoya, Akinobu Irie and Gin-ichiro Oya	
Temperature Dependence of Shapiro Steps in Surface Intrinsic Josephson Junctions of Bi₂Sr₂CaCu₂O_y Single Crystals	1349
Akinobu Irie, Nobuyuki Takahashi and Gin-ichiro Oya	
Temperature Dependence of Critical currents of Small-sized Intrinsic Josephson Junctions in Bi₂Sr₂CaCu₂O_y	1353
Michihide Kitamura, Akinobu Irie and Gin-ichiro Oya	
 <i>Symposium of Fabrication of Oxide Thin Films and Composites:</i> <i>Superconductors/Ferromagnetic Materials/Ferroelectrics/Others</i>	
Preface	1357
Crystal Growth of Relaxor Ferroelectric Solid Solution Single Crystals near a Morphotropic Phase Boundary with High Curie Temperature and Some Properties	1359
N. Yasuda, Y. Itoh, H. Ohwa, Y. Yamashita, M. Iwata and Y. Ishibashi	
Structural and Electrical Properties of Bi_{4-x}La_xTi₃O₁₂ Thin Films Formed on p-Si(100) Substrates	1365
Atsushi Kohno, Fumitake Ishitsu and Kazuhiro Matuo	
Array of PZT Films Preparation by Sol-gel Method	1369
Zhang Weihua, Zhao Gaoyang and Junji Nishii	
Pulsed Laser Deposition and Characterization of (001)-oriented Pb(Zr_{0.52}Ti_{0.48})O₃/LaNiO₃ Heterostructures	1373
T.J. Zhu and Li Lu	
Improvement of Pb(Zr_{0.52}Ti_{0.48})O₃ Thin Films with LaNiO₃ as Bottom Electrodes	1377
T.J. Zhu and Li Lu	
Dielectric Properties of SrTiO₃ Films Under Electric Fields	1381
Hiroshi Takashima, Ruiping Wang, Akira Shoji and Mitsuru Itoh	
YBa₂Cu₃O_{7-d} Films with a Nanoparticulate Dispersion of Y₂BaCuO₅ for Enhanced Flux Pinning	1385
Paul N. Barnes, Timothy J. Haugan, Michael D. Sumption, Srinivas Sathiraju, Julianna M. Evans and Justin C. Tolliver	
Improvements in Current-density of YBa₂Cu₃O_{7-δ} Films on Sapphire Buffered with Atomically Flat CeO₂ Having High Density of Nanodots	1389
J.C. Nie, H. Yamasaki, H. Yamada, Y. Nakagawa, M. Murugesan and K. Develos-Bagarinao	
Shock – Compaction of Bi-Pb-Sr-Ca-Cu-O Particles	1393
H. Kezuka, K. Yamagata, M. Itoh, T. Suzuki, M. Kikuchi, T. Atoh, M. Kawasaki and K. Fukuoka	
Preparation of Bi₂Sr₂Ca_{n-1}Cu_nO_y Thick Films on MgO by Chemical Solution Deposition	1397
Masashi Seki, Shigeaki Yasuike, Toshinori Tokuda and Satoru Kishida	
Bi₂Sr₂Ca_{n-1}Cu_nO_y Superconducting films Deposited by rf Magnetron Sputtering under Magnetic Filed	1401
Naoki Fujiwara, Takahiro Onishi, Koji Katsurahara and Satoru Kishida	

Bi₂Sr₂Ca_{n-1}Cu_nO_y Sputtered Films Deposited using Bi-Sr-Cu-O and Ca-Cu-O Targets	1405
Koji Katsurahara, Nobuhiro Yagi, Naoki Fujiwara, Satoru Kishida, Hideki Yoshikawa and Sei Fukushima	
BiSrCaCuO Thin Films with Deficit of Bismuth Synthesized by Molecular Beam Epitaxy	1409
H. El. Alami, I. Rannou and C. Deville Cavellin	
Growth of Bi-based Whiskers form the Glassy Quenched Platelets Including SiO₂, TiO₂ and Al₂O₃	1413
Masanori Okabe, Masataka Mizutani, Kyouji Murakami and Satoru Kishida	
Physics Aspects of Ferromagnetic/superconducting Superlattices	1417
H.-U. Habermeier and G. Cristiani	
Time Constant of Laser-induced Thermoelectric Voltage Device made by LaCaMnO₃, YBa₂Cu₃O_{7-σ} and LaSrCoO₃ Thin Films	1423
P.X. Zhang, G.Y. Zhang, H.J. Wu, C. Wang, J.B. Peng, L.P. Li and H.-U. Habermeier	
Synthesis and Physics in YBa₂Cu₃O₇/La_{0.7}Sr_{0.3}MnO₃ HeteroStructures	1427
J.G. Lin and S.L. Cheng	
Electrical and Magnetic Properties of La(Ba)MnO₃ Thin Films	1431
Tamio Endo, Shin-ichi Iwasaki, Kouji Yoshii, Takahisa Sakurada, Michi Ogata, Ajay K. Sarker, Josep Nogues, Juan S. Munoz and Jose Colino	
Preparations and Evaluations of Magnetolectric Oxides / Superconductor Multilayers	1437
Nobuyuki Iwata, Koji Matsuo and Hiroshi Yamamoto	
Magnetic Properties of Gd-Al-Substituted Garnet Films for Microwave Devices	1441
Nobuyasu Adachi, Yutaka Hayakwa, Takashi Okuda and Manabu Gomi	
Large-Area ITO Deposition Technology and Its Application to Flexible Film Type Solar Cells	1445
Takehito Wada, Akihiro Takano, Masayuki Tanda, Sinji Fujikake, Takeshi Yoshida and Tomoyoshi Kamoshita	
Nano-porous TiO₂ Thin Film for Dye-sensitized Solar Cell	1451
M. Murayama, N. Nishikawa, E. Yamazaki, M. Shoyama, N. Hashimoto and K. Masuyama	
Optical Constants of RF Sputtered Amorphous TiO₂ Films	1455
T.S. Sathiaraj	
Synthesis of Titania Hollow Spheres Using Non-aqueous Emulsions	1459
Andrew M. Collins, Christine Spickermann and Stephen Mann	
Photo-rechargeability of TiO₂/LiMn₂O₄ Bi-layer Film Electrodes Prepared by Pulsed Laser Deposition	1463
H. Usui, O. Miyamoto, T. Nomiya, Y. Horie and T. Miyazaki	
Organic-Inorganic Composite SiO₂/Al₂O₃ Films and Their Fine-Patterning by Sol-gel Process	1467
Zhao Gaoyang, Junji Nishii, Liang Qunlian and Zhang Weihua	
Mechanical and Electrical Properties of Rare earth-Doped Ceria Ceramics for SOFC Electrolytes	1471
Kazuhisa Sato, Hiroo Yugami and Toshiyuki Hashida	
Preparation and Evaluation of Mn-Doped ZnO Films	1475
Kwangjong Suh, Hirofumi Kinoshita, Nobuhiro Tsutsui, Hiroshi Okada, Akihiro Wakahara and Akira Yoshida	
Evaluation of Some Indium β-Diketonates as a Precursor for Preparing In₂O₃ Thin Films by MOCVD	1479
Yuzo Tasaki, Yuichi Fujimoto, Tsutomu Tanaka, Natsuki Mori and Shuji Yoshizawa	
Effect of Recoiled Oxygen on Characteristics of ITO Films Deposited by Ion Beam Sputtering	1483
Satoshi Iwatsubo	
<i>Symposium of Advanced Magnetic Materials</i>	
Preface	1487
Efficiency of Magnetic Alignment Detected for Non-magnetic Oxide Crystals Deriving from Individual Bonding Orbital	1489
C. Uyeda, K. Tanaka and R. Takashima	
Magnetic and Electric Functionalities of Magnet-ferroelectrics BiFe_{1-x}Mn_xO₃(0 x 0.5)	1493
Ryutaro Asahi and Katsuro Oda	

Curie Temperature of Ferromagnetic Metal Mono-layers Studied by First Principle Band Calculation	1497
Kazuo Shiiki and Akinari Kaneyoshi	
Temperature Dependence of the Rare-Earth Sublattice Magnetic Moments in $R_3Fe_5O_{12}$ (R=Sm, Gd, and Dy) investigated by X-ray Magnetic Circular Dichroism	1501
Hayato Miyagawa, Naomi Kawamura and Motohiro Suzuki	
Controllability of Rotation of Magnetization Vortex in Fe Particles	1505
Takumi Sannomiya, Ji Shi and Yoshio Nakamura	
Fe Doping Effects on the Optical and Magnetic Properties of Indium Oxide	1509
Y. Murakawa, K. Yasui, T. Tajiri, T. Suzuka, M. Sasaki, H. Shimooka, H. Deguchi, S. Kohiki, M. Oku, T. Shishido and S. Matsushima	
Electric and Magnetic Properties of $Eu_{1-x}Ba_xMnO_3$	1513
Minoru Takemoto, Satoru Amari, Hiroyuki Ikawa and Tetsuro Nakamura	
Magnetism and Dielectricity in $Nb_{1-x}Pr_xFeO_{3+}$	1517
Kiyoshi Horiuchi, Katsuro Oda and Katsuhisa Nagayama	
Efficiency of Magnetic Alignment Detected for Non-Magnetic Insulators in Terrestrial and in Micro-Gravity Condition	1521
K. Tanaka, C. Uyeda and R. Takashima	
Reduction of Field-Intensity to Achieve Magnetic Alignment of Non-Ferromagnetic Micron-Sized Particles by Reduction of Temperature	1523
R. Takashima, K. Tanaka and C. Uyeda	
Tunnel Conductance in $Ni_{80}Fe_{20}/Al$-oxide/ Al Junctions below the Superconducting Temperature of Al Films	1527
Mikihiko Oogane, Tadaomi Daibou, Hitoshi Kubota, Yasuo Ando and Terunobu Miyazaki	
Enhanced Current-perpendicular-to-plane Giant Magnetoresistance in Single Spin-valve with Synthetic Antiferromagnet Free layers	1531
Y. Jiang, S. Abe, T. Nozaki, N. Tezuka and K. Inomata	
Electromagnetic and Structural Properties in $(La,Y)(Mn,Ni)O_{3+\delta}$	1535
Akio Yamamoto and Katsuro Oda	
Fabrication and Magnetoresistance of the Diluted Magnetic Semiconductor $(In,Mn)Sb$	1539
Kiyoshi Kuga, Satoshi Yanagi, Tomasz Slupinski and Hiroo Munekata	
Room Temperature Magneto-Resistance of Fe_3O_4/Ag Granular System	1543
Yoshihide Kimishima, Masatomo Uehara, Yoshiki Notani, Kei Kobayashi and Waka Yamada	
Long-time-annealing and Interdiffusion at $AlO_x/Co-Fe/Ir-Mn$ Interfaces	1547
Y. Saito, M. Amano, K. Nishiyama, Y. Asao, H. Tsuchida, H. Yoda and S. Tahara	
Improvement of Insulating Characteristics for TMR Granular Multilayers Using Combined Insulators, MgF_2 and Al_2O_3	1551
M. Nakazumi, K. Ono, H. Yanagihata, T. Koyano and E. Kita	
Magnetization Studies of Exchanged Coupled $CoFe_2/CoFe_2O_4$ Bilayers	1555
C. M. Williams, A. Lisfi H. Corcoran, A. Johnson and P. Chang	
Effect of Nitrogen on Magnetic Properties of $FePt-Al_2O_3$ Granular Thin Film	1561
M. Tofizur Rahman, Nobuhiro Katayama, Akimitsu Morisako and Mitsunori Matsumoto	
Effect of Hydrogen on the Preparation of Fe/Pt Multilayer	1565
Taro Kamiki and Shigeki Nakagawa	
Parpendicular Magnetic Anisotropy of $CoPt-TiN$ Nanocomposite Magnetic Films	1569
Yuuki Yamamoto, Ji Shi, Yoshio Nakamura and Mitsuru Hashimoto	
Relationship between Surface Morphology and Magnetic Property of Co/Pd Multilayers	1573
H. Yoshikawa and S. Nakagawa	
Writer Materials for High Performance Hard Disk Drives	1577
T. Kubomiya, M. Matsuoka, Y. Uehara, S. Ikeda and Y. Miura	
Soft Magnetic $Fe-Co-B/Ni-Fe$ Double Layer with High Magnetic Anisotropy Field	1581
Takeshi Okamoto, Sok-Hyun Kong and Shigeki Nakagawa	

Interlayer Exchange Coupling across Epitaxial Tunnel Barriers Consisting of Si Layers of Si-Ge Layered Structures	1585
D.E. Bürgler, R.R. Gareev, L.L. Pohlmann, H. Braak, M. Buchmeier, R. Schreiber and P. A. Grünberg	
Structure and Exchange Coupling in (100) Oriented Co/Ir Artificial Alloys	1591
Eiji Kita, Katsutoshi Suzuki, Hidetake Itoh, Hideto Yanagihara and Hiroyuki Tokano	
Transport Property of Magnetic Nanojunction Prepared Using Substrate Transformation	1595
M. Nawate, K. Shinohara and S. Honda	
Magnetoresistance of Nanojunction Configured with Crossing Two Film Edges	1599
M. Nawate, K. Shinohara, S. Honda and H. Tanaka	
Magnetoresistance of Co-Pt-ITO Composites Film	1603
Wanti Ekawati, Ji Shi, Yoshio Nakamura and Osamu Nittono	
Improvement of Perpendicular Coercivity of Hexagonal M-type Ferrite Thin Films on Pt Underlayer Prepared by Flash-annealing	1607
Keisuke Matsuno, Keisuke Mizuno and Shigeki Nakagawa	
Soft Magnetic Properties and Microstructure of Ni₈₁Fe₁₉/(Fe₇₀Co₃₀)₉₉(Al₂O₃)₁ Films Deposited by Ion Beam Sputtering	1611
Naoto Hayashi, Yasuyoshi Miyamoto, Kenji Machida and Takahiko Tamaki	
Irradiation Effects in Fe/Si and Fe/FeSi Multilayers	1615
I. Sakamoto, S. Honda, M. Koike, H. Tanoue and S. Purwanto	
Effects of Substrate Temperature on Crystal Structure and Magnetic Properties of Sm-Co/Cu Films with Perpendicular Anisotropy	1619
Shigeto Takei, Takanori Uemizu, Akimitsu Morisako and Mitsunori Matsumoto	
The Influence of Annealing Temperature on Magnetic and Magneto-optical Properties of Ni Films	1623
E. E. Shalyguina, L.V. Kozlovskii, Junghwa Seo, ChongOh Kim and CheolGi Kim	
Influence of the Particle Size Distribution on Magneto-Optical Property of Bi-YIG Particulate Film	1627
C. S. Kuroda, T. Taniyama, Y. Kitamoto, Y. Yamazaki, K. Uchida and F. Ikazaki	
High-Rate and Low-Temperature Sputter-Deposition of Ni-Zn Ferrite Thin-Films	1631
Tomoharu Ogita, Setsuo Yamamoto, Gen Ishida, Hiroki Kurisu, Mitsuru Matsuura, Yoshihiro Shimosato and Shigenobu Okada	
YIG Ferrite Thin-films Epitaxially Grown by Reactive Sputtering Method	1635
Hirofumi Kuniki, Setsuo Yamamoto, Hiroki Kurisu, Mitsuru Matsuura and Pyungwoo Jang	
Magnetization Processes in Single Domain Permalloy Thin Films	1639
Ching-Ray Chang, Zung-Hang Wei, Mei-Feng Lai and J. C. Wu	
Magnetic Properties of Encapsulated Co Nanoparticles Prepared with Reversed Micelle	1643
Tetsuji Haeiwa, Motohiro Wada and Shozi Mishima	
Structural Characterization of Oriented L1₀-FePb Nanoparticles	1647
K. Sato and Y. Hirotsu	
Effects of Co Doping on the Magnetic Properties of Fe₂O₃ Nanoparticles	1651
Y. Ichinyanagi, J. Yamazaki, Y. Kimishima and Y. Tachibana	
Preparation of Submicron Magnetic Latex by Miniemulsion Polymerization	1655
Yoshitaka Ayusawa, Mayuko Takasu, Toshifumi Shiroya, Munehiro Sakamoto and Haruma Kawaguchi	
Synthesis of Monodisperse Ferrite Nanoparticles Coated with Polyacrylic Acid (PAA)	1659
K. Nishio, M. Hasegawa, M. Ikeda, H. Narimatsu, Y. Hase, Y. Ogura, N. Gokon, S. Tsubouchi, M. Hatakeyama, M. Abe and H. Handa	
Magnetic and Electrochemical Studies on Li-Mn-Ni Spinel Oxides	1663
Tatsuya Nakamura, Tomohito Tanaka, Yoshihiro Yamada, Hikari Takahara, Mitsuharu Tabuchi and Hiroyuki Kageyama	
Magnetic Properties of High B₁ Manganese Zinc Ferrites	1667
Eiichiro Fukuchi, Kenya Takagawa, Taku Murase and Takeshi Nomura	

Low-Temperature Sintering of (Ni,Zn)Fe₂O₄ by Hot Isostatic Press	1671
Shigeru Ito, Keiko Nakanishi and Takashi Fujii	
Effect of Additives and Ribbon Thickness on Magnetic Properties in Nanocrystalline Fe_{9.4-x}Co₇₀Nb_{2.6}Si₉B₉M_x Alloys (M: Nb, Zr, W, Mo, V, Cr, Ti, Ni, Si, Al, Ga)	1675
Yoshihito Yoshizawa and Shigeo Fujii	
Magnetic Properties of Sm-Fe-Co-Cu-Nb-B Melt-Spun Ribbons	1679
Mitsuaki Mochizuki, Michihisa Shimizu and Shigeo Tanigawa	
Magnetic Study on Olivine Compounds	1683
Yoshiki Miwa, Tatsuya Nakamura, Yoshihiro Yamada, Mitsuharu Tabuchi and Hiroyuki Kageyama	
Damage Evaluation Techniques for FBR and LWR Structural Materials Based on Magnetic and Corrosion Properties along Grain Boundaries	1687
Taiji Hoshiya, Sigeru Takaya, Fumiyoshi Ueno, Yoshiyuki Nemoto, Yuji Nagae, Yukio Miwa, Yasuhiro Abe, Masao Ohmi, Takashi Tsukada and Kazumi Aoto	
Magnetoresistance in Co-Cu Metastable Alloys Prepared by Mechanical Alloying and Shock-compression	1691
X. Fan, T. Kagayama, A. Chiba and T. Mashimo	
Nanocrystalline Deposition for Developing High Permeability Ferromagnetic Materials	1695
X. P. Li, H. L. Seet, Z. J. Zhao, Y. K. Kong and H. Gong	
Effect of Annealing on the GMI Response of Electroplated NiFe/Cu Composite Wire	1701
Z. J. Zhao, X. P. Li, C. Chua, H. Sheet and L. Lu	
Effect of Annealing on Magnetic Properties of NiFe/Cu Composite Wires	1705
Z. J. Zhao, X. P. Li, H. L. Seet, C. Chua and L. Lu	
Magnetic Property Enhancement of Nanocrystalline Pr₂Fe₂₃B₃ Melt-spun Ribbons by Refractory Elements Substitution	1709
H. W. Chang, C. H. Chiu and W. C. Chang	
Innovative Magnetic Bearing Motor	1713
Chien-Chang Wang, Chau-Shin Jang, Wei-Chen Cheng, Chien-Sheng Liu, Yu-Hsiu Chang and Der-Ray Huang	
Effects of Cu Addition on Nb-Fe-B Sintered Magnets with High-Br	1719
A. Sakamoto, T. Hidaka, C. Ishizaka, N. Uchida and A. Fukuno	
Plating of Metal (Co, Ag) Thin Films on Hollow Microspheres of Low Density and Its Application to Lightweight Microwave Absorbers	1723
S. S. Kim, S. T. Kim and M. Abe	
Noise Suppression Effect of Nano-granular Magnetic Thin Films at GHz Frequency	1727
Shigehiro Ohnuma, Hideaki Nagura, Tadayoshi Iwasa, Hiroyasu Fujimori and Tsuyoshi Masumoto	
Development of Ni-Zn Ferrite Materials with Improved Ingress Noise for Telecommunications	1731
S. Murakami, N. Koyuhara, S. Tanaka, M. Kadowaki and Y. Sawa	
FeSi/IrMn Exchange-Coupled Multilayer Film with Plural FMR Absorptions	1735
Makoto Sonehara, Toshiro Sato, Kiyohito Yamasawa, Yoshimasa Miura and Masahiro Yamaguchi	
High Permeability Soft Magnetic Multilayer Films with Fe-Ni Alloy for GHz Range	1739
Akira Kakinuma, Tsutomu Chou, Katuhiko Wakayama and Yasuo Hashimoto	
Low Height YIG Circulator using Microstrip Line	1743
Kazunori Oshiro, Setsuo Yamamoto, Hiroki Kurisu, Mitsuru Matsuura, Hideto Mikami, Shigeo Fujii and Shirou Murakami	
Magnetization Reversal Study of Co Films on Nano-sized Pyramidal Ag Islands	1747
D. H. Wei, C. C. Yu, S. C. Chou, K. L. You, Y. D. Yao, Y. Liou and T. S. Chin	