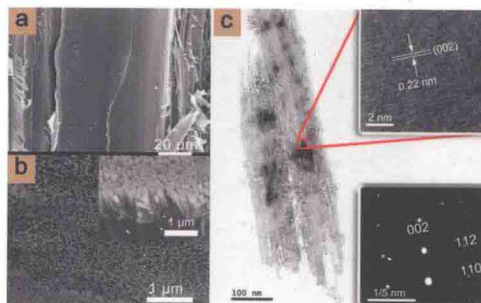
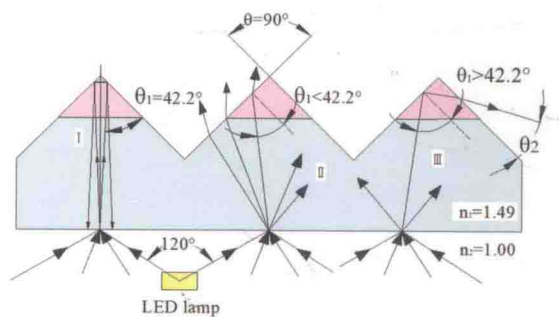
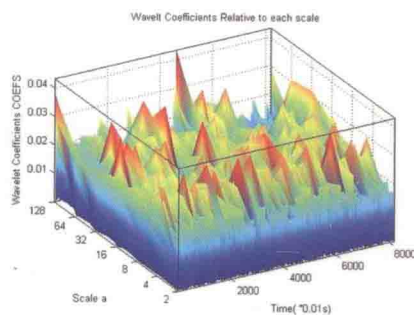


Micro-Nano Technology XV

Part 2



Edited by
Fei Tang

Micro-Nano Technology XV

PART 2

Selected, peer reviewed papers from the
15th Annual Conference and
4th International Conference of
the Chinese Society of Micro-Nano Technology
(CSMNT 2013),
November 3-6, 2013, Tianjin, China

Edited by

Fei Tang



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Phone: +1 (603) 632-7377
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Preface

This book collects papers selected from the 15th Annual conference and 4th International Conference of the Chinese Society of Micro-Nano Technology.

Micro-nano is considered as an emerging high technology for the 21st century. It involves various high-tech fields including electronics, machinery, materials, manufacturing, testing, and disciplines of physical, chemical and biological. A lot of remarkable achievements have been made in the past few years. Still it is expected that the emerging novel ideas will change people's way of thinking. The conference brings together leading scientists and engineers in Micro-Nanotechnology to exchange information on their latest research progress. The theme of the conference this year will be "Micro-Nanotechnology changes human life", reflecting the rapid growing interests in applying nanotechnology to multi-disciplinary fields that will help develop society and improve the quality of life for people. The conference provides a perfect forum for scientist and engineers of different disciplines to meet and discuss.

The 15th Annual conference and 4th International Conference of the Chinese Society of Micro-Nano Technology have been held in Tianjin, China. Tianjin, sits at the southeast of Beijing, about 140 km, as the confluence of five tributaries of the North China Plain, east is near Bohai sea, north of Yanshan, known as "the pearl of Bohai sea". The mother river- the Haihe river, flows through the city, making Tianjin more beautiful and prosperous. There are not only famous snacks-Goubuli stuffed bun, Tianjin twist, etc, but also the local folk—art crosstalk, Tianjin allegro, ping ju, in Tianjin.

This conference received more than 800 papers, and accepted 508 papers with the acceptance rate of 64%.

In this conference, 11 top level MEMS and NANO technology researchers were invited to make plenary presentations. They are:

- Zheng You, Academician of China National Engineering Research Institute;
- Yuelin Wang, Vice Chairman of China Instrument and Control Society;
- Lining Sun, The Dean of the Electrical Engineering Academy at Soochow University;
- Jing Liu, Professor, Department of Biomedical Engineering at Tsinghua University;
- Peter Zeppenfeld, Dr. Univ.-Prof. for Experimental Physics at the University of Linz;
- Wei Pang, Professor, College of Precision Instrument and Opto-electronics Engineering at Tianjin University;
- Zhihong Li, Professor, Microelectronics research institute, Peking University;
- Xiaodong Hu, Professor, State Key Laboratory of Precision Measurement Technology and Instruments, Tianjin University;
- Weizheng Yuan, Director of Institute of Advanced Manufacturing Engineering, Northwest Polytechnic University;
- Jinliang Xu, Professor, North China Electric Power University;
- Yihui Wu, Head of Group of Micro/Nano Devices and System of the State Key Lab of Applied Optics;

Thanks the staff of Tianjin University and CSMNT Secretary for the efforts they have made, and thanks all honored attendees. Their contributions in all aspects are indispensable to the conference's success.

Thanks to Trans Tech Publications (TTP) for their work on publishing the special volume for selected papers of this conference. We have a good experience for cooperation, and hope that we can continue this cooperation in coming conferences in the future.

The 16th Annual conference and 5th International Conference of the Chinese Society of Micro-Nano Technology will be held in August 31-September 3, 2014, Chengdu, China. Southwest China, is one of the most modern and prosperous cities in China. The fertile Chengdu Plain, on which Chengdu is located, is also known as the "Country of Heaven". Being the birthplace of China's 4 leading cuisines in China-Scichuan Cuisine, Chengdu is widely recognized as the "land of Abundance and Capital of Great Food" and was crowned the UNESCO City of Gastronomy of the World in 2010, the first one in Asia. With a city history of 2,300 years, Chengdu is one of the first historically and culturally famous cities nominated in China and a permanent venue for China.

See you in Chengdu!

Zheng You

Chairman of Organizing Committee

Vice President of Chinese Society of Micro/Nano Technology

Table of Contents

Preface

v

PART 1

Chapter 1: Micro/Nano Materials, Technologies and Application

Microstructure and Millimeter-Wave Attenuation Performance of Exfoliated Graphite with Different Expanding Volume J.J. Zhao, X.X. Li, Y.X. Guo, D.Y. Ma and L. Yang.....	3
Influence on Friction Material Performance of Nano-MMT Composites of PF by <i>In Situ</i> Method H.W. Nie, Y.K. Zhou, L. Yang and Y. Cao	8
Effects of Different Preparation Parameters on the Properties of MAO Coatings X. Wu, Q.M. Liu and H.X. Li	14
Characterization of Ag-TiO₂ Electronic Structures and Nanotubes Based on First-Principles Calculation J.L. Li, X.X. Cao, B. Wu, H.L. Yu and Y.J. Gan.....	20
Improved Study on the Performance of Polyacrylamide/Attapulgite Clay Composite Material Removing Copper (II) Ions from Aqueous Solution C.L. Li, H. Xu, J.L. Zhang, W. Wang, J. Tang and J.X. Wu	26
The Experiment Research of Gas-Assisted Ion Etching Nanograting M.H. Liu, D. Feng, Y. Li, B.Y. Yao, S. Zhong and L.S. Feng	32
Design and Fabrication of a Micro Spring with Steel Structures for the Microtensile Testing of Thin Films B. Miao, X.W. Wei, D.M. Wu and J.D. Li	39
Comparative Photocatalytic Properties of Cu₂O from Octahedron to Sphere Structures L.M. Qian, J. Zhou, C. Zheng, D. Chen, B. Shen, Y.K. Liu, L.X. Wang and Y.H. Tong	45
Research on Air-Media Mixed Substrate Technology of GaAs Based Millimeter Wave Antenna G.Q. Jiang, S.X. Jia, F. Hou and J. Zhu	51
A Novel Nanoparticles Activation Technique for Electroless Plating on ABS Plastic H.F. Ma, F. Ma, H. Sun, X.R. Wang, R.Y. Jiang and C.C. Zhang.....	55
Effect of Electrolytic Temperature on Nano-Hydroapatite Deposition on ASD Bioceramic Films X.N. Ma, L.H. Zhang, L.X. Zheng, Z.H. Yang, Q. Gao, Y. Li, X.H. Liu, F. Li, J.Q. Han and X. Xu	64
Preparation and Microstructure of Layered Hydroxyapatite Nanorods on Bioceramic Coatings Using Plasma Electrolytic Oxidation Technique Y. Li, Q. Wang, J.H. Fang, Q. Gao, M. Lin, J.Q. Han, F. Li and X. Xu.....	68
Preparation and Characterization of Nanofibriled Cellulose via High Frequency Ultrasonication from Cornstalk Y. Lu, Q.F. Sun, J. Li and Y.X. Liu.....	72
ZnO/Graphene Composites: Synthesis, Characterization and Optical Properties L.W. Hu, H. Tian, Y.X. Zhang, K. Lu and A.H. Jing	76
The Study of SiC Thin Films Produced by Magnetron Sputtering L. Lai, X.J. Wang and J.J. Hao	82
Surface Modification of Nano-Titanium and its Effect on the Antibacterial Property of Waterborne Wood Coating L. Qian, L. Long and J.F. Xu	88

Design and Deposition of Infrared Antireflection Protection Film on Magnesium Fluoride Substrate for 3~5 μm	
L. Li, D.X. Wang, X.H. Fu, D.M. Liu and Y. Kou	94
Design and Fabrication of Multi-Wave Band Yellow Laser Filter Film	
D.M. Liu, S. Wang, X.H. Fu, J. Zhang and Y. Kou	100
Design and Evaluation of a High-Accuracy Measurement System for Sheet Resistance of Thin Films	
H.B. Pan, J.N. Ding, B.G. Cao and G.G. Cheng	106
Optical and Electrical Properties of P-Type N-Doped ZnO Film	
Y.J. Sun and W.X. Wang	113
Performance of Wood Flooring UV Coatings Interfacial Modified by Nano-Silica	
X.X. Yan, G.Y. Xu, Y. Wu and Z.H. Wu	118
Effect of RuO_2 on Piezoresistive Properties of CB/MVQ Composite Materials	
J.Y. Wu, J.H. Fan, Y.H. Huang, J. Guo and K. Zhang	124
Influence of Nano Abrasive on Chemical Mechanical Ultra-Precision Machining of Sapphire Substrate Surfaces	
X.H. Niu, Y.H. Huang, J.W. Zhou, L.Y. Han and G.H. Yuan	130
The Componential and Morphological Characteristics of Cu_3N Induced by Femtosecond Laser Pulses	
N.Y. Yuan, S.Y. Wang, J.N. Ding, J.H. Qiu, X.Q. Wang and W.H. Huang	135
Visible Light Photocatalytic Degradation of Methylene Blue over N-Doped TiO_2	
Y.L. Hu, L.Q. Zhou, H.F. Liu and X.P. Guo	141
Study on the Influence of N-Doping to the <i>In Situ</i> Growth TiO_2 Film Photocatalytic Character	
Z.C. Yu, S. Wang, X. Wang, Y.L. Niu and Z. Li	147
Evaluation of Annealing Effects on TiO_2 Nanorod Arrays for Dye-Sensitized Solar Cells by Equivalent Circuit Analysis	
M.R. Sui and X.Q. Gu	152
Graphene Synthesis on Specified Location	
H. Zhang, C.X. Zhao, X. Guo, Y.W. Lu and Z.W. Liu	159
Experimental Investigations of the Detonation Synthesis of Micron Al_2O_3 by the Precursor of Thermal Decomposition	
R.Y. Li, H.L. Yang, H.H. Yan, X.H. Wang and X.J. Li	165
Study on Preparation and Resistive Switching Characteristics of SnO_2 Films	
H.X. Li, H. Chen, W.Q. Ke, J.H. Xi, Z. Kong and Z.G. Ji	169
“Double Junction” of Ag-Doping TiO_2 Nanotubes	
J.L. Li, X.X. Cao, H.L. Yu and Y.J. Gan	175
Synthesis and Characterization of Highly Dispersed and Homogeneous Nano Zinc Oxide Rods	
Y.X. Li, Z. Ren, J.P. Guo and Y.L. Xi	180
Effect of Milling Time on Properties of Ti-48at%Al Composite Powder Prepared by High Energy Milling	
F. Yi, X.L. Cai, L. Zhou, M.J. Yu, Z. Li and Q.W. Jiang	185
Directly Writing Nanodots on Silicon Surface by Combined-Dynamic Dip-Pen Nanolithography	
L.J. Yang, J.L. Cui, Y. Wang, S.W. Guo, H. Xie and L.N. Sun	191
The Effective Thermal Conductivity of Porous Polymethacrylimide Foams	
P. Yue, L. Qiu, X.H. Zheng and D.W. Tang	196
Design and Fabrication of BaTiO_3 Crystal Thin-Film Waveguides	
J. Zhang, X.H. Fu, L.J. Guo, J.H. Zhou, D.M. Liu and D.G. Sun	201
Experimental Investigation of Microstructure and Piezoresistive Properties of Phosphorus-Doped Hydrogenated Nanocrystalline Silicon Thin Films Prepared by PECVD	
H.B. Pan, J.N. Ding, G.G. Cheng and B.G. Cao	208

Research on Graphene Preparation by Liquid Phase Ultrasonic Exfoliation and Antifriction Performance in Water	
H.C. Zhao, Y.L. Qiao and Y. Zang	218
Tribological Properties of Nano-MMT/In Lubricant Additive on 45#Steel Tribo-Pair	
Y. Cao, Y.K. Zhou, T.Y. Yang, D.B. Zhang and L. Yang	225
Effects of Electrolyte Composition on the Properties of Micro-Arc Oxidation Coatings Formed on 6063 Alloy	
X. Wu, Q.M. Liu and H.X. Li	232
Effect of Size of Graphite Flakes on the Physical Properties of the Graphite Materials	
S.J. Sun, X.J. Liu, T.Q. Li, Z. Fan and Z.H. Feng	238
Research on the Preparation of Antimony Nanoparticles by Mechanical Ball Milling	
J.L. Xu, L. Zhang, Q. Guo, S.G. Zhou and C. Feng	244
Preparation and Photocatalytic Properties of Rod-Shaped TiO₂ Based on Salix Fiber	
Y.B. Li, J.T. Huang and Y.F. Pan	250
Deposition and Characterization of Mg Doped CuCrO₂ Films by DC Magnetron Sputtering	
S.Z. Wu, Z.H. Deng, W.W. Dong, J.Z. Shao and X.D. Fang	255
Fabrication and Phase-Transition Characteristic Investigation of Nanocrystalline VO₂ Thin Film	
X.Q. Chen, X.Z. Hu and Q. Lv	260
Controllable Self-Assembly of 9,10-Diphenylanthracene into Micro-Nanostructures from 0-Dimension to 3-Dimension by Simple Post-Drying Thermal Annealing Method	
J.W. Sun, M. Ouyang and C. Zhang	266
Study on the Improvement of Microprism Retroreflective Material	
W.K. Zhu, M. Zhu, C.Y. Yuan and R.M. Diao	271
Research on the Sol-Gel Method of Preparing Ternary Nano SiO₂-Al₂O₃-TiO₂ Materials	
Y. Chen, P. Liu and Z.W. Yu	281
Synthesis of Nanosized NaY Molecular Sieve under Dynamic Hydrothermal Crystallization	
Y. Chen, P. Liu, Z.W. Yu and J. Tan	288
Preparation of Nano Silicon Dioxide with Sol-Gel Method	
L.M. Fang, P. Liu, Y. Chen and Z.W. Yu	298
Fabrication of Bi₂Te₃ Nanowires Applied in Thermoelectric Generators	
D.H. Ren, Z.H. Yang, Y.N. Chang, Z.Y. Dai and Z. You	306
Study on the Photocatalytic Degradation of Diesel Pollutants in Seawater by a Prepared Nano Ag-Doped Zinc Oxide	
X.C. Yu, D.D. Hu, J.F. Chen, X.J. Jin and X. Zheng	311
Photocatalytic Degradation of Diesel Pollutants in Seawater by Using Nano Li-Doped Zinc Oxide under Visible Light	
X.C. Yu, D.D. Hu, J.F. Chen, Y.Y. Wu and X. Zheng	317
Study of Birefringence and Mode Field for Hollow-Core Photonic Bandgap Fiber	
L.S. Feng, W.S. Song and X.Y. Ren	324
Photoelectric Properties of Metallic Mesh Based on Flexographic Printing	
X. Li, W. Liu, Y.F. Xu, Y. Wang, J. Ran and L.H. Li	330
Comparable Studies on Photocatalytic Activities of Ag₃PO₄ Microspheres and Polyhedrons	
B. Wang and X.Q. Gu	335
Switchable Wettability of Silicon Micro-Nano Structures Surface Produced by Femtosecond Laser	
X.Q. Wang, J.N. Ding, N.Y. Yuan, S.Y. Wang, J.H. Qiu, B. Kan, X.B. Guo and Y.Y. Zhu	341
Synthesis and Luminescent Properties of Eu³⁺ Doped Lu₂O₃ Powders Using Micro-Emulsion	
Y.R. Zhong, M. Zhao and B.L. Xu	346

Equivalent Mechanical Properties of Graphene Predicted by an Improved Molecular Structural Mechanics Model	
Y.Z. Cheng and G.Y. Shi	351
Nanomechanical Properties and Surface Wettability of Carbon Films Prepared by Magnetron Sputtering	
W.W. An, X.L. Zhao, L. Gu and R.Z. Su	357
A Study of Abrasive Rotating Velocity Effect on Monocrystalline Silicon in Ultra-Precision Mechanical Polishing via Molecular Dynamic Simulation	
Y.H. Yang, H.W. Zhao, H.D. Liu and L. Zhang	362
Preparation of Alumina Nanowires by Etched Method in Acid Solution	
R. Yang, G.Q. Jiang, J. Ma, S.Y. Han and J.Y. Pang	370
Preparation of TiO₂ (Au) Nanotubes by Hydrothermal Method for Photocatalytic Reduction of Cd²⁺ Ions	
C.X. Feng, G.Q. Xu, J. Lv, Z.X. Zheng and Y.C. Wu	375
Research on Multi-Walled Carbon Nanotubes by Fiber Laser Irradiation	
Q.S. Su, J.M. Chen and F.R. Liu	382
Theoretical and Experimental Research of CO₂ Absorption Enhancement by Carbon Nano-Tube	
S.M. Lu, M. Xing, Y.D. Li and J. Song	388
Effect of Balls/Powder Weight Ratio in Milling on Microstructure and Properties of MWCNTs/Cu Composites	
M.J. Yu, X.L. Cai, L. Zhou, C. Hu, Z. Li and F. Yi	394
Molecular Dynamics Simulation of ZnO Nanowire Manipulation	
D.J. Li, L. Zhang and J. Song	400
Vertically Aligned Carbon Nanotubes Transfer with Glass Frit	
J. He, Z. Zhan, X.H. Du, S.F. Chen, L.K. Yu, C. Zheng, L.Y. Wang and D.H. Sun	406
Electromagnetic Induction Heating Bonding between Carbon Nanotubes and Metal Electrode	
X.J. Chen, D. Chang, Q. Lv and Z.Y. Gan	412
Change the Magnetic Properties of Electroplated Core Films to Improve Micro-Fluxgate Performance	
B. Guo, S.B. Liu, S.L. Yang, W.G. Feng and J.P. Li	417
Preparation of PLA and PLGA Magnetic Microspheres with T-Shaped Microchannel Reactor	
P. Liu, Y. Zhong and Y. Luo	425
Cell Immobilization and Detection Using Surface Plasmon Resonance Biochemical Analysis System Based on Nano SiO₂ Film	
X. Chen, L.L. Zhang, J.H. Sun, H. Li and D.F. Cui	430
Preparation and Antibacterial Bioactivity of Ti-Base Titania Nanotube Arrays	
T. Tian	435
Study on Preparation of Chitosan Microspheres Loaded with Levofloxacin	
J. Guan, P. Cheng, S.J. Huang, Z.H. Li, X.Z. Zhang, J.M. Wu, Y. Guo and R.X. Li	442
Fenton Degradation of Methylene Blue by CuFeS₂ Ultrafine Powders	
D.X. Liang, J. Li, L. Li and G.S. Pang	449
Study and Fabrication of Filter Film in Tactical Optical Fiber Communication System	
H.L. Tang, G.J. Liu and X.H. Fu	455
Embedded Seal Cavity Fabricated in HTCC MEMS Technology	
C. Li, Q.L. Tan, J.J. Xiong, W.D. Zhang, Z. Ren, M.L. Yang and T. Luo	461
Self-Assembly of a Superhydrophobic ZnO Nanorod Arrays Film on Wood Surface Using a Hydrothermal Method	
Q.F. Sun, Y. Lu, J. Li and J. Cao	468
Preparation and Application of Macropore Nanometer Host-Guest Catalyst	
W. Ding, D.C. Wang, D.Z. Zhao and M. Ke	472

Large-Area Self-Assembled Monolayer of Silica Microspheres by Convective Assembly Y.H. Wang	479
Assessment on the Collection Efficiency of an Aerosol Sampler in Micro and Nanoparticles Environment Y. Yang, P. Mao, S.Y. Feng and J.H. Zhang	483
Glass Frit as a Hermetic Joining Material for Bonding among Three Wafers with Metallic Film Feed-Through C. Zhao, J. Wang, S.M. Zhang and J.B. Zou	489
Numerical Simulation of Microstructure Evolution in AZ31 Magnesium Alloy during Equal Channel Angular Pressing G.C. Ren, X.J. Lin and S.B. Xu	495
Fracture Behavior of Cu/Cu-WC_p Layered Composites F. Yan, R.X. Guo, H.T. Xia, H. Yu and Y.B. Zhang	500
Experimental Research on Influence of Temperature and Compression on Wrinkle Evolution of Thin Films on Compliant Substrates X.L. Zhao, S.X. Zhang, W.W. An, H.C. Yu and Z.S. Liu	504
Investigation on Dissolving Process of Secondary Phases and Austenitic Grain Growth in a Microalloyed Steel B. Hao, X.J. Zhang, S.Q. Yuan and G.L. Liang	509
Evolution in Dislocation Configuration of Deformed Fe-40Ni-Ti Alloy during Isothermal Relaxation S.Q. Yuan and X.J. Zhang	515
Viscous Dissipation of Polymer Melt in Micro Channels and Macro Channels B. Xu, X.Y. An, L.C. Li and G.M. Li	521
Influence of Sonomechanical Treatment on the Structure of Cellulose Micro/Nano Fibrils Y. Wu, Z.H. Wu, X.J. Zhang, J.L. Zhang and X.X. Yan	526
Experimental Investigation and Numerical Simulation of Pure Copper Foil Springback in Micro-Bending Process X.J. Lin, G.C. Wang, H. Jiang and J. Li	531
Smoothness Control of Wet Etched Si{100} Surfaces in TMAH+Triton B. Tang, M.Q. Yao, G. Tan, P. Pal, K. Sato and W. Su	536
Fabrication, Characterization and Photocatalytic Activity of TiO₂/Cellulose Composite Aerogel Y. Lu, Q.F. Sun, J. Li and Y.X. Liu	542
The Fabrication of High Resistance-Temperature-Coefficient Vanadium Oxide Film by Magnetron Sputtering Method Y. Qiao, Y.S. Ling, Y. Lu and H. Yang	547
Research on the Characterization of Ultra-Smooth K9 Glass Surface Polished by Nanoparticle Colloid Jet Machining X.Z. Song and F.H. Zhang	552
The Research of Gypsum Investment Mould Used as Forming Micro-Castings G.T. Wang, M.X. Ren, B.S. Li and H.Z. Fu	557
Fabrication and Characterization of Transparent ZnO Film Based Resistive Switching Devices H.X. Li, D.D. Shen, W.Q. Ke, J.H. Xi, Z. Kong and Z.G. Ji	565
Size Distributions of Mesophase Microbeads Obtained from Heterogeneous and Homogeneous Systems W.W. Zhang, X.J. Liu, T.Q. Li and Z. Fan	571
Fabrication of Filter Film Using in Polarized Light Guide Prism System D.M. Liu, X.J. Wang, X.H. Fu, S. Wang and Y.G. Pan	577

Chapter 2: Micro/Nanofluids Research and Technologies

Experimental Study on Dispersion Stability of Rutile TiO₂ Nano-Particles Suspension of Ammonia-Water Solution	
Y.L. Wu, K. Du, L. Yang, S.Y. Bao and W.J. E.....	587
Multilayer Microfluidic Electrokinetic Device with Vertical Embedded Electrodes	
H. Zhang, X.W. Liu, L. Tian, X.W. Han and S.Y. Liu	593
Research of Removable Electrodes Based on Microfluidic Chip	
X.W. Han, X.W. Liu, L. Tian, W. Wang, H. Zhang and Z.G. Mao	600
Effect of Joule Heat on Hydrophily of Microchannel	
X.W. Han, X.W. Liu, L. Tian, H. Zhang, Y. Liu and Z.G. Mao	606
Nucleation and Growth Characteristics of Bubble in Subcooled Flow Boiling in Microchannel	
C. Qiu and H.C. Zhang.....	611
Effects of Wall Slip on Filling Flow for Polymer Melt in Micro Injection Molding	
J. Zhuang, Y.J. Zhang, D.M. Wu, L.Z. Liu, C.J. Sun, W. Wang and S.X. Liu.....	617
Research of Magnetic Fluid under the Orthogonal Stationary Magnetic Field	
M. Zhao, L.N. Yi, S.L. Jiang and C.J. Liu.....	623
Numerical Simulation of Jetting Instability in Flow Focusing Microfluidics	
H.B. Zhang, J.P. Liu and H.X. Lai.....	630
Improving the Current Stability through the Bubbles-Free Microfluidic Electro-Spray Ionizing Chip	
X. Qian, L. Liu, Q. Yu, G. Jing and X.H. Wang	637
A Microfluidic-Based Trapping and Positioning Method for Single Cells	
Q. Zhang, C.Y. Xu, W.J. Huang and H. Aoyama	642
The Tunable Optofluidics Waveguide Design Based on the Novel Dual Side-Coupled Cavities Plasmonic Structure	
T.L. Li, R.S. Liang, W.H. Mo, L.B. Luo, M.J. He and Y.R. Wang	648
Organic Solvent Fumigation Bonding for Multi-Layer Poly(methyl Methacrylate) Microfluidic Device	
H. Zhang, X.W. Liu, L. Tian, X.W. Han and Y. Liu	654
Swirl-Based Non-Contact Method of Cell Orientation Control	
W.J. Huang and Q. Zhang.....	660
Preparation and Thermosensitivity of N-Isopropylacrylamide Microgels Containing L-Phenylalanine	
J.J. Chen, X.L. Fu and D.X. Shi.....	666
A Test Droplets Dispensing Solution for Digital Microfluidic Biochip Parallel Testing	
L. Zhang, J.J. Mei, B.W. Yan and Q. Gao	670
Numerical Analysis of the Liquid Crystalline Backflow-Driven Effect under a Continuous Square Wave Electric Field	
C.B. Liu and A.B. Wang.....	675
Numerical Simulation of the LCP Hele-Shaw Flow Based on the Injection Molding Process	
C.B. Liu and J.Y. Sun	681

Chapter 3: Micro/Nano Research, Design and Fabrication

Design and Fabrication of Universal Inertial Switch Based on MEMS Technology	
S.J. Liu, Y.P. Hao and F.L. Liu.....	689

Design of Microwave Reconfigurable Equalizer Based on MEMS Technology W. Jiang, L. Han and X.P. Liao	696
Research about Flexible PDMS Micro-Perforated Panel Based on MEMS Silicon Mold H.Y. Ping, S.H. Wu, Z. Zhao, D.Y. Kong, L.D. Du and Z. Fang	701
Research of Micro-Inertial Device High-Aspect-Ratio Etching Parameters G.X. Shi, S.X. Jia, G.Q. Jiang and J. Zhu	706
A New Method to Analyze the Stiffness of MEMS Accelerometer H.T. Liu, Z.Y. Wen, Z.G. Shang and L. Chen	710
Noncircular Tool Fabrication by WEDG Using Electrode Jump Motion and Noncircular Array Holes Drilling Y.Q. Wang, J.C. Bai and G.Z. Zhu	715
Architectural Design and Simulation of a Fourth-Order Sigma-Delta Modulator W.J. Fan, Q.Y. Lv, C. He, L. Yin and X.W. Liu	723
Research on Fabrication and Electronic Characteristics of Dual-Extended Nano Structure Memristor X.H. Bai, D.Z. Wen, C. Con, Z. Jian, M. Yavuz and C. Bo	728
Interaction Effects of Micronozzle Geometric Parameters on Propulsion Performance X.P. Li, W.Z. Yuan, Q. Shen, J.B. Xie and H.L. Chang	734
Study on Fabrication Process of SU8 Photoresist Microstructures and Evaluation of Stress Gradient H. Rong, J. Wei and X. Chen	740
Ultra-Precision Machining of Off-Axis Convex Ellipsoidal Surface Using Two Different Accurate Spiral Tool Paths S.J. Ji, H.J. Yu and J. Zhao	745
Graphitization Wear of Diamond Tool in Nanometric Cutting of Single Crystal Silicon J.C. Wang, M.M. Xin, S.Y. Cao and T. Zhao	751
Fabrication of the Silicon-Based Three-Dimension Neural Probe Arrays Y.W. Zhuang, Z.X. Cheng, X.M. Zhang and H.H. Yuan	758
Two Benches PDMS Free Flow Electrophoresis Chip W. Wang, L. Tian, X.W. Han, L. Zhao, G.H. Ye, H.F. Zhang and X.W. Liu	769
Polarization-Insensitive Holey Fiber with Ultra-Small Mode Areas Using a Cross-Slot-Structure Core G.J. Wang, Z.B. Wang, Y.H. Chen, Y.Y. Chen, Y.Q. An, S.W. Li, M.J. Zhang and J.H. Li	775

PART 2

The Enhanced Raman Scattering from Ag Nanoball/ZnO Hollow Nanosphere Arrays Fabricated by Laser-Induced Annealing Y.S. Zang, J. Yin, J. Li and J.Y. Kang	779
Method to Design and Fabricate a Novel RF MEMS Switch N.B. Zhang and L.R. Mei	784
Thermoelectric Device Based on Vertical Silicon Nanowires for On-Chip Integration Z. Wang, Y.Y. Qi, M.L. Zhang, A. Ji, F.H. Yang and X.D. Wang	789
The Fabrication of Trans-Scale Micro-Fuze Safety Device L.Q. Du, A.A. Wang, M. Zhao and M.C. Song	796
Design of Intelligent Meteorological System Based on MEMS H. Wang, M. Nie and Q.A. Huang	801

Ultrasonic Modulating Compound Discharge – Electrochemical Micro-Fine Machining Technology and its Applications	
Y.W. Zhu, J. Shao and H.Z. Chen.....	807
Study on Parameters of MEMS Planar Zigzag Slot for Fuze	
Z.J. Zhou, W.R. Nie, X.F. Wang and Z.W. Xi.....	813
Cantilever Piezoelectric Micro-Pump Modeling Based on Bond Graph Port	
D.X. Cao, Q.L. Jia, L.Z. Lei, Z.F. Xin and J.J. Mi.....	819
Study on Shock Resistance of MEMS Devices with Different Stoppers	
T. Jiang, Y. Wei, S. Yao and J. Zhou.....	825
Corner Effect of Micro-Comb Capacitive Structure	
H.P. Liu, S.Q. Gao, L. Jin and Y.L. He.....	831
The Vibration Pickup of Micro-Pump Diaphragm Based on MEMS Technology Design	
G. Li, L. Li, X.F. Zhao, D.Z. Wen and Y. Yu.....	837
Fabrication and Formation Mechanism of Electrospun Spatially Defined Fibrous Patterning Structures on Conductive and Insulating Substrates	
S.L. Liu, G.H. Sun, Y.Y. Huang, B. Sun, H.D. Zhang and Y.Z. Long.....	842
Effect of Strain Rate on the Simulation of MEMS Safety and Arming Device	
W.R. Ma and G. He.....	849
Design and Analysis of a Novel Locking Mechanism of MEMS Safety and Arming Device	
F.F. Wang, W.Z. Lou, Y. Wang, F.Y. Liu, J. Lu and J. Wu.....	856

Chapter 4: Measurements, Sensors and MEMS

Compact Compound Imaging System with Large Target Surface	
K.X. Dong, N.N. Wei, J.P. Shi and Y.Q. Wang.....	863
Sustained-Release Performance <i>In Vitro</i> of BCG/Fe₃O₄/Chitosan Thermosensitive Gel Integrated Material for Irrigation Therapy of the Bladder Tumor	
C.G. Wu, K.N. Sun and A.M. Li.....	867
The Influence and Control of Encapsulation Moisture in MEMS Gyroscope	
Y.B. Guo, H. Yu, W.Y. Lu, X.F. Jin and J.B. Zou.....	875
A Micromachined Glucose Monitoring Sensor with Diffusion Control	
Y.X. Liu, X.S. Song, Y.F. Yao, B. Huang and M. Zhong.....	879
A Solid-Core Photonic Crystal Fiber Nanosensor	
J. Luo, W.Y. Ma, J. Yao, W.M. Wang and Q. Lin.....	885
Miniature Stress Test of Miniature Components Based on Piezoresistive Stress Sensors Test Circuit	
X.D. Wang, Y.J. Qin and Y. Luo.....	891
Performance Test for Nanometer Accuracy Capacitance Displacement Sensor	
J.J. Cui, X.H. Qu and Y.H. Kang.....	898
Design of the Digital in Signal Processing Platform of the Gyroscope Based on FPGA	
D. Wang, J.J. Zhou, S. Chen, Y. Yao, L. Yin and X.W. Liu.....	903
Study on Measurement Method of Dynamic Linearity for High G Micro Accelerometer	
Y.B. Shi, S.F. Dong and Z.J. Zhou.....	908
The Structure Design and Simulation of the Ring Resonator Based on SOI Planar Optical Waveguide for the Micro Biochemical Sensor	
Y. Du and Y. Dong.....	914
A MEMS-Based Electrostatic Field Sensor Using Out-of-Plane Thermal Actuation	
C. Ye and X.X. Chen.....	921
Experiment Research on Array Grouped by MEMS Vector Hydrophone	
M.R. Liu, Z.M. Jian, H. Liu, X.P. Song and G.J. Zhang.....	927

Study of a Temperature Detection Sensor in Road Surface Sensors System X.P. Dong, L. Han, G.Y. Yin and L. Cai	932
Design of Road Condition Sensor Based on Multiple Frequency Detecting Technology X.P. Dong, L. Han, G.Y. Yin and L. Cai	937
Design of Charge Pump for Inertial Sensor Drive Circuit F.F. Yao, X.J. Zhang, Z.Q. Gao and X.W. Liu	942
Control System of an Electromagnetic Vibrating Ring Gyroscope J.L. Liu, D.Y. Chen and J.B. Wang.....	952
A New Readout System for LC Resonant Sensors B.E. Ge, T. Liang, Y.P. Hong, C. Li, W. Wang and J.J. Xiong	957
A High-Resolution Lowpass Sigma-Delta Modulator Applied in Micro-Gyroscope J.J. Zhou, D. Wang, Y.K. Zhao, H.L. Xu and X.W. Liu.....	964
Study on MEMS Capacitive Differential Pressure Sensor Z.H. Hou, Z. Huang and S.X. Jia	968
A Novel Passive Wireless Humidity Sensor Based on a Dual-Metal Inductor G. Li, J.Q. Huang, C. Zhang, L.F. Wang and Q.A. Huang	972
Mixed Mode Driving Circuit of Quartz Gyroscope Interface Circuit Y.F. Zhou, Y. Li, Z. Ma and X.W. Liu	977
Research on the Phase Difference Extraction Algorithm of the Free-Drive Three-Axis MEME Gyroscope Used in Spinning Projectiles X.M. Zhang, X.M. Duan, J.Y. Shang, D.D. Zhao and J. Liu	982
The Impact of Typical Aerosol Types on Polarization Sensitive Spectral for Bionic Micro-Nano Polarization Sensor Q. Liu, L. Guan, B. Li, J. Wang and J.K. Chu.....	988
A Wireless Power-Free Pressure Sensor for Real-Time <i>In Vivo</i> Gastrointestinal Pressure Monitoring Q. Shi, D.Y. Chen, J.B. Wang, K.K. Bao and L.J. Liu	993
A Readout System Design for LTCC-Based Piezoresistive Accelerometer B.X. Zhou, Y.X. Zhang and R.N. Fang.....	997
Design and Experiment of Ultrasonic Anemometer Using TDC-GP2 Time-to-Digital Converter H.Y. Du and M. Qin.....	1002
AFM Fast Tip Approach Based on Fiber Optic Sensor D.X. Chen, B.H. Yin, Y. Ju, Y.S. Lin, M.Z. Chu and H. Li	1008
The Delta-Sigma Modulator of Fractional-N Frequency Synthesizer for Wireless Sensors Network Applications Z.Q. Gao, J.B. Lan, X.W. Liu and L. Yin	1014
Research for the Resonator Structure Process Technology of Resonant Pressure Sensors Z.Y. Zhang, Y. Cao, Y. Mei, J.G. Li and Z.C. Feng	1020
Design of Water Pressure Sensor Applied to the Eye Aqueous Humor Detection Q.L. Tan, X.S. Zhang, L.Q. Ding and Z.Y. Zhou	1023
The Design and Simulation of Vibratory Ring Gyroscope M.Y. Meng and W.D. Zhang	1029
A SOI-MEMS Based Resonant Barometric Pressure Sensor with Differential Output Z.Y. Luo, D.Y. Chen and J.B. Wang	1033
Design of Guided Shell Inclination Measurement and Display System Based-on MEMS Accelerometer J.L. Han, X. Ma and X.H. Yang.....	1040
Research on Zero Bias Characteristic of MEMS Accelerometer in FBW L.C. Zhong, J.Z. Wang and J.D. Shi	1046

The Design and Simulation of Wide Range Pressure Sensor Based on HTCC for High-Temperature Applications	
Z. Ren, Q.L. Tan, C. Li, T. Luo, T. Cai and J.J. Xiong.....	1053
Silicon Thermal Flow Sensor Based on Ceramic Substrate	
S.Q. Chen, L. Zhou and M. Qin	1060
Fabrication and Characteristics of the 2D Magnetic Sensor Based on the MOSFET Hall Device	
X.F. Zhao, J.Y. Cao, Y. Song, D.Z. Wen, Q.R. Lin and L. Tian	1066
The Design of Gm-C Low-Pass Filter for Micromachined Gyroscope	
Q.Y. Lv, C. He, W.J. Fan, Y.F. Zhang and X.W. Liu.....	1072
A 16 Bits Sigma-Delta Modulator Applied in Gyroscope	
Q. Fu, W.P. Chen, Y.K. Zhao, L. Yin and X.W. Liu	1077
Characteristics Research of Hall Magnetic Sensor Based on Nano-Polysilicon Thin Film Transistors	
C.C. Zhuang, X.F. Zhao, Y. Song, D.Z. Wen, J.D. Jin and Y. Yu.....	1082
Fabrication and Characteristics of Silicon Bridge Magnetic Sensor Based on Cantilever Beam	
L. Li, X.F. Zhao, Y. Yu, D.Z. Wen, J.Y. Cao and L. Tian.....	1088
The Design and Experiment of a Two-Dimensional Position Sensitive Detecting (PSD) Sensor Based on Avalanche Breakdown	
Y.Y. Shan, M. Qin and S.Q. Chen	1094
Fabrication and Characteristics of Silicon Bridge Magnetic Sensor Based on Nano-Polysilicon TFTs	
X.F. Zhao, T. Wu, J.Y. Cao, D.Z. Wen, H.Q. Zhang, C.C. Zhuang and Y. Yu.....	1100
Design and Optimization of Sigma-Delta Accelerometer	
S. Chen, J. Yang, W.J. Fan, Q. Fu and X.W. Liu.....	1106
Design, Fabrication and Test of In-Plane MEMS Piezoresistive High-g Accelerometer	
Y.B. Shi, Z.J. Zhou, S.F. Dong and J. Tang.....	1111
The Design of Lead Compensator for $\Sigma\Delta$ Micromachined Accelerometer	
C. He, W.J. Fan, Q.Y. Lv, L. Yin and X.W. Liu.....	1117
High Precision Double-Interferometry for Large Step-Height On-Line Measurement Using Waveform Transforming Technology	
S. Ma, F. Xie, Y.Z. Wang and L. Chen.....	1122
Accuracy Analysis of Quality Factor Measurement Based on Time Domain Method for MEMS Resonators	
L.Y. Wang, X.H. Du, Y.Z. Su, J. He, Y.P. Li, D.Z. Wu and D.H. Sun	1131
A Novel Noise Reduction Algorithm of MEMS Gyroscope Based on Compressive Sensing and Lifting Wavelet Transform	
W.J. Zhu, G.L. Wang, Z.T. Qiao and F.Q. Gao	1138
Micro-Machined Gyroscope Mathematical Model and Error Analysis	
M.W. Deng, B. Mo, C.D. Ling, R.H. Huang and S.K. Kim	1144
Finite Element Analysis on Thermosonic Ball Bonding Process of MEMS Chip	
D.R. Wang and M. Liu.....	1153
Lateral Resolution Test for Confocal Laser Scanning Microscope	
J.J. Cui.....	1159
Fabrication and Packaging of Electromagnetic 2D MEMS Scanning Mirror	
C. Zhang.....	1165
Tightness Detecting Technique for the Valves of Diaphragm Gas Meter Based on Chromatic Confocal Method	
J.C. Hu, T. Cui, L. Jian, J.F. Li and D.S. Li.....	1170
Design of Third-Order Single-Loop Full Feed-Forward Sigma Delta Modulator	
L. Liu, S. Chen, C. He, L. Yin and X.W. Liu	1176

Quartz Crystal Double-Ended Tuning Fork Resonator for High Resolution Force Sensing	
J. Wang, C. Zhao, S.M. Zhang and J.B. Zou	1181
Rapid Temperature Measurement of Meteorological Detection System Based on MEMS	
Y.F. Lu, W.Z. Lou and M.R. Guo.....	1185
Three-Dimensional Measurement System Based on Micro Stereovision	
W. Pei, Y.Y. Zhu, S.X. Liu and J.M. Wen.....	1189
Micron and Nanometer Measuring Methods Based on Metrological Scanning Electron Microscope	
B.H. Yin, D.X. Chen, R. Xia, L.D. Wen, H. Xue, M.Z. Chu and H. Li.....	1195
Control for Multi-DOF Micro-Order Planar Motion Stage Based on Sliding Mode Observer	
S.Y. Dian and G.F. Xiang	1201
Analysis of Influencing on the Ground Calibration for PIG Based on Seasons	
H. Liu, X.P. Song, G.J. Zhang, M.R. Liu and Z.M. Jian.....	1207
Error Compensation Technology of Semi-Strapdown MEMS Inertial Measurement System	
J. Li, J.D. Zhu, L.P. Hou and J. Liu	1213
The Triaxial Angular Rate Measurement System Based on Two MEMS Accelerometers Used for Rotating Carrier	
X.M. Zhang, D.D. Zhao, J.Y. Shang, X. Cui and J. Liu	1219
Research on MEMS Based Real-Time Measurement System for the Nuclear Fuel Transport Cask	
Z.L. Wang, W. Xiong, Z.Y. Zhou, F. Zhao and D. Lu	1226

Chapter 5: Micro Actuators and Devices

Compact Polarization Beam Splitter Based on Surface Plasmon Polariton Silicon Waveguide	
J.B. Yang, Z.Z. Shao, S.Z. Xu, J. Xu and Z. Kuo	1233
The Design and Realization of Micro Induction Heater for the Thermal Bubble Generation	
Y.P. Hou, B.D. Liu, J.H. Yang and P. Cai	1239
Automated and Optimal Actuation Voltage Waveform Design for Contact Bouncing Mitigation of MEMS Switches	
C.X. Zhao, X. Guo, T. Deng, L. Li and Z.W. Liu.....	1248
The Research of Industrial Brake Temperature Measurement Based on Nano-Materials and Nano-Technology	
X.M. Chen, H. Wen, Q.W. Wang, D.Y. Geng and Y.T. Chen.....	1254
Hysteresis Compensation of MSMA Actuators Based on Neural Network Model	
H.W. Ji, M.N. Liu and X.P. Hu.....	1260
A High-Order Sigma-Delta Modulator Applied in Micro-Accelerometer	
J. Yang, L. Liu, Q.Y. Lv, X.W. Liu and L. Yin.....	1266
Sliding-Mode Control for Piezoelectric Actuators Based on Hysteresis Observer	
Q. Wei, C. Zhang, D. Zhang and C.J. Zhang	1271
An Electromechanical Tunable Grating on Silicon-on-Insulator Platform	
X.M. Gao, Z. Shi, X. Li, S.M. He, H.B. Zhu and Y.J. Wang.....	1277
Sliding Mode Control for Electromagnetic Actuation MOEMS Scanning Mirror	
H. Zhou, L. Chen, J.B. Wang, Z.J. Zhang and D.H. Chen.....	1283
One-Time Use MEMS Metal Bridge Igniter Based Electro-Explosive Solid Off-On Switch	
X.R. Ding, W.Z. Lou, K. Li, Y. Zhao, G.L. Wang and P. Liu	1289
Optimization of Element Parameters for a New OPFC Ultrasonic Phased Array Transducer	
Z.P. Wang and Y. Luo	1293
Focusing Actuating Performance of OPFC Phased Array Transducer Based on DPSM	
Z.P. Wang and Y. Luo	1299

Chapter 6: Optical Research

Novel Integrated Demultiplexer with the Bragg Grating Structure Based on Surface Plasmon Polaritons	
L.B. Luo, R.S. Liang, T.L. Li, W.H. Mo and M.J. He	1307
Research of Optical Characteristics of Diffuser with Taper Microstructure by Micro Injection Molding	
D.M. Wu, J. Zhuang, Z.L. Zhao, H. Xu, Y. Huang and X.X. He	1313
Study on Measuring System of Automatic Image Alignment Refractive Index Based on New Mathematical Model	
Q.H. Yao, M. Cao and C. Liu	1319
The Precision Observation of Projection Model for Microgripper System Based on Stereo Light Microscope	
Y.Z. Wang, C.C. Zhang, G.D. Ma and W.J. Yin	1324
Research of the PZT Polarization for Deformable Mirror	
J.J. Chen, Y. Liu, J.Q. Ma, J.C. Deng, B.Q. Li and J.R. Chu	1331

Chapter 7: Energy and Power Research and Technologies

Acoustic Noise Energy Scavenger with Noise Reduction Effect	
S.H. Wu, L.D. Du, H.Y. Ping, L.J. Guo, Z. Zhao, D.Y. Kong and Z. Fang	1339
The Influence of Electrodes Position to Alternating Current Annular Micromixer	
H. Zhang, X.W. Liu, L. Tian and X.W. Han	1343
Design and Research of Dynamical Property Testing System for Nano and Micron Inertial Components	
L.Y. Zhang	1349
Kinematic Analysis of Ultrasonic Vibration Assisted Micro End Grinding	
J.H. Zhang, Y. Zhao, S. Zhang and Z. Wei	1357
Artifacts in KPFM in FM, AM and Heterodyne AM Modes	
Z.M. Ma, J.L. Mu, J. Tang, H. Xue, H. Zhang, C.Y. Xue, J. Liu and Y.J. Li	1362
Research on Natural Frequency of MEMS Structure with Meander Suspensions by Mechanical Character Analysis	
Y.J. Li, M.Z. Sun and X. Zhao	1369
Tolerance Analysis of Comb-Driving Double Ended Tuning Fork Resonator Fabricated by DRIE Technology	
R.L. Meng, H.Q. Zhang and H. Liu	1375
Effects of Structure and Air Damping on Quality Factor under Various Pressure Environments Based on Experimental Research	
L.Y. Wang, X.P. Wang, X. Yan, J. He, J. Wei, L.K. Yu, J.F. Cai and D.H. Sun	1381
Effects of Droplets' Collision on Heat and Mass Transfer between High-Temperature Gas and Micron Water Droplets	
G. He, X.C. Wang and Y.F. Li	1386
Observation of Ferromagnetic Resonance in Magnetic Exchange Force Microscopy (MExFM)	
Y.B. Shi, H. Xue, Z.M. Ma, H. Zhang, J. Tang, C.Y. Xue, J. Liu and Y.J. Li	1392
Investigation on Multi-Piezoelectric Effects from the First Positive Piezoelectric Effect	
L.P. Shi, J. Huang, X.W. Wei and Y.B. Wei	1398
The Failure of the Novel Solid MEMS Switch in Multi-Physical Coupling Field	
F.Y. Liu, W.Z. Lou, Y. Wang and F.F. Wang	1404