

International Conference on Advanced Fibers and Polymer Materials 2017

Next Generation Fibers: Changing Your
Life

Shanghai, China
8 - 10 October 2017

ISBN: 978-1-7138-0623-3

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2017) by Donghua University – College of Materials Science & Engineering
All rights reserved.

Printed with permission by Curran Associates, Inc. (2022)

For permission requests, please contact Donghua University
at the address below.

Donghua University – College of Materials Science & Engineering
2999 North Renmin Road
Songjiang, Shanghai
China, 201600

Phone: 0086-21-67792362

Fax: 0086-21-67792855

<http://cmse.dhu.edu.c>

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Contents

1. Abstracts of Plenary Lecture.....	1
Advancing Nanocellulose Technologies for Water Purification	
Benjamin S. Hsiao.....	2
Nano Technology Convergence for the Future IT, ET, BT	
Jong Min Kim	3
Structural Health Monitoring and Performance of Polymer-based Composites at Space Environment	
Alan Kin-tak Lau.....	4
How do we Create and Process Materials for Flexible, Transparent Electronic Circuitry?	
Tobin Marks	5
Functional Nanofibers	
Seeram Ramakrishna.....	6
Fibrillar Structures, Transport Pathways and Stretchable Electronics	
Elsa Reichmanis	7
2. Abstracts of Keynote/Invited Lecture	8
Crystalline/Single Crystal Semiconductor Optoelectronic Fibers and Devices	
John Badding.....	9
Fibrous Branched-Clusters: The Next Generation of Tissue Regeneration Templates	
Gary L. Bowlin.....	11
Development of New Optical Functional Materials based on Composition Design and Structure Analysis	
Gemei Cai.....	12
Preparation and Piezoelectric Properties Investigation of Electrospun Poly(vinylidene fluoride) Fibrous Membranes	
Sheng Chen	13
Biomimetic Gelatin/Bacterial Cellulose Nanofiber Hybrid Scaffolds and Their Improved Cellular Response	
Shiyan Chen	14
Inorganic Biomaterials	
Yu Chen.....	15
Synthesis of Inorganic-organic Nanocomposites for the Imaging and Therapy of Tumor	
Zhigang Chen.....	16
Fluid Instability during Thermal Drawing Processing for Fibers	
Daosheng Deng	17
Formation of Self-Assembled Nanofibers for Sensing and Imaging of Polyprotein	
Dan Ding	18
DNA Nanotechnology-enabled Engineering at the Biosensing Interface	
Chunhai Fan	19
Multifunctional Carbon Nanotube Fibers and Sheets that Sense, Actuate, and Store	

Energy	
Shaoli Fang.....	20
Multifunctional Photonic Fibers: Sensing through Structure and Material	
Xian Feng.....	21
Graphene Fibers: Scalable Preparation and Energy-Related Applications	
Chao Gao.....	22
Plasmonic Fiber-optic Biomedical Sensors	
Tuan Guo.....	23
Bioengineering of Hydrogels for Smart Wound care	
Bhuvanesh Gupta	24
Protein Resistant and Antithrombogenic Properties of Amphiphilic Block Copolymer Coatings Prepared by RAFT Polymerization	
Kazutoshi Haraguchi	25
Molybdenum Disulfide-Based NanoplatforM for Cancer Theranostics	
Chuanglong He.....	26
A Novel Hydrophilic Anti-Frogging Prepared by Cellulose Nanofibrils Manufactured via Formic Acid Hydrolysis plus the Followed High Pressure Homogenization	
Dannong He	27
Insights into the Flow Processing of Silks	
Chris Holland	28
Electrospun Nanofibres of High-Performance Polymer Prepared by Solid-state Polymerization of Molecularly Self-assembled Monomers	
Haoqing Hou.....	29
Multiscale Construction of Graphene Fibers with High-Performances	
PingAn Hu.....	31
Constructing Highly Planar Conjugated Systems through Nonbonding Conformational Locks	
Hui Huang.....	32
Influence of Treatment Conditions on Structure and Mechanical Properties of BPDA-PDA Polyimide Fibers	
Xiangling Ji.....	33
Precise Control of Membrane Structure for High-Performance Separation	
Jian Jin.....	34
Simultaneous Structure Formation and Dyeing of PET Fibers through Cold-Drawing in Ethanol – Utilization of Infusion Phenomena	
Takeshi Kikutani	35
Eco-Friendly Microporous Organic Polymers Based on Hyper-Crosslinked Pitch and Coal Tar: Preparation and Application	
Lei Li.....	37
Self-Assembled Monolayers of Functional Molecules for Solid-state Electronic Devices	
Tao Li.....	38
High Performances of Plant Fiber Reinforced Composites	
Yan Li.....	39
Nitrogen-containing Conjugated Microporous Polymers and Their Derived Carbons for	

Gas Capture and Energy Storage and Conversion	
Yaozu Liao	40
Unique Energy Harvesting Performances of Electrospun Nanofiber Webs	
Tong Lin	41
Fibril Network Bulk Heterojunction Blends for High Efficiency Organic Photovoltaics	
Feng Liu	42
From Small Molecule to Supramolecular Polymer to Supramolecular Nanotube Yarn	
Minghua Liu	43
New Insight into the Gelation of Na-alginate Aqueous Solution	
Ruigang Liu	44
3D Printed High Strength Hydrogels as Tissue Engineering Scaffolds	
Wenguang Liu	45
Soft Functionalization of Silk Fibroin Materials and Bio-Flexible Devices	
Xiangyang Liu	46
Nanotechnology for Innovative Cancer Therapy	
Zhuang Liu	47
Hierarchically Buckled Sheath-Core Fibers for Superelastic Electronics, Sensors, and Torsional Muscles	
Zunfeng Liu	48
Synthesis, Characterization and Application of Two-Dimensional Materials	
Jun Lou	49
Nano-functionalized Silk for Smart Wearable Devices	
Zhisong Lu	50
Toward Multi-functional Poly(3,4-ethylenedioxythiophene)-based Conducting Bointerfaces through Polymerization Techniques and Molecular Design	
Shyh-Chyang Luo	51
Self-Powered Systems with Fiber-Shaped Devices	
Wenjie Mai	52
Polymer-functionalized Graphene Nanoribbons with Excellent Liquid-phase Dispersibility	
Yiyong Mai	53
Multiaxial Mechanical Behavior at Single Fiber Scale: From Micro-Mechanisms to Single Fiber Compression Tests	
Alba Marcellan	54
Structural Biopolymers – Using Nature’s Building Blocks as an Inspiration for Advanced Manufacturing	
Benedetto Marelli	56
New Methods for Making Filament Nanofibers and Their Use for Functional Materials	
Sergiy Minko	57
Electrospun Nanofiber and Nanoyarn for Tissue Engineering	
Xiumei Mo	59
Silk Biomaterials for Engineering Complex Tissues: Going Beyond the Fiber	
Ana Leite Oliveira	60
Morphological Controls Toward Intrinsically Stretchable Organic Electronics	

Qibing Pei.....	61
Smart Fiber Materials and Devices	
Huisheng Peng	62
Raft, Snaps and Superbugs	
Greg Qiao	63
Achieving High-powered Zn/air fuel cells through Doped Hierarchically Porous Carbons Derived from Quaternized Copolymers as Oxygen Electrocatalysts	
Jinli Qiao	64
Rheological and Enthalpic Response of Ultra-high Molecular Weight Polyethylene Melts	
Sanjay Rastogi.....	65
Implantable and Biodegradable Fibers for Optical Neural Interfaces	
Xing Sheng	66
Negative Sorting of Circulating Tumor Cells Using a Microfluidic Platform Integrated with Streptavidin-Functionalized PLGA Nanofibers	
Xiangyang Shi	67
Nanostructure Control for Fabrication of CNF Filaments	
Daniel S öderberg.....	69
Advanced Multi-Material Fibers	
Fabien Sorin	70
Development of a Novel Injectable Matrix for Cartilage Repair	
Rui A. Sousa.....	71
Upconversion Luminescent Materials: Optical Tuning and Their Bioapplications	
Qianqian Su.....	72
Designing and Tuning the Optical Properties of Perylene Tetracarboxylic Diimides by POSS Side Chain and Bay Area Substitutions	
Bin Sun.....	73
Chlorine Rechargeable Biocidal Polymers and Fibers for Biological Protection and Food Safety	
Gang Sun.....	74
Microstructural Design of Fibrous Electrode for Wearable Energy Storage	
Gengzhi Sun.....	75
Rare-earth Doped Upconversion Luminescent Nanomaterials for Sensing, Chemo-Photothermal Therapy and Bioapplications	
Lining Sun.....	76
From Optical Fibers to Advanced Functional Fibers	
Guangming Tao	77
From “Active” Polymers to Smart Fibers via Post-modification Polymerization	
Patrick Theato	78
Multifunctional, Responsive Hydrogels and Nanoreactors as Selective Compartments and Actuators in Microfluidics	
Brigitte Voit.....	79
Functional PVA-<i>co</i>-PE Nanofiber Membrane Obtained by Surface Chemical Structural Modification	
Dong Wang.....	81

Thermoplastic Nanofibrous Membranes as Controllable Porous Scaffolds for High Efficient Energy Conversion Applications	
Dong Wang, Qiongzhen Liu.....	82
Design and Preparation of Textile-based Devices for Medical Applications	
Lu Wang.....	84
Advanced Functional Semiconductor Fibers	
Lei Wei.....	85
Fabrication and Properties of Novel Porous Polymer and Carbon Materials	
Dingcai Wu.....	86
Fabrication and Application of Forward Osmosis Composite Membrane based on Nanofiber Membrane Support Layer	
Zhenliang Xu.....	87
Ionic Liquid-Based Polyelectrolyte Membranes: Synthesis & Applications	
Feng Yan.....	88
Development of Novel Nano-in-Nano Drug Delivery Systems	
Fang Yang.....	89
Evaluation of Drugs Permeation through Modified PVA Blended Membranes	
Jen-Ming Yang.....	90
Polymer Complexation for Multicomponent Fibers	
Shuguang Yang.....	91
Melt-Spun PLLA-PDLA Fibers with Completely Stereo-Complexed Crystallites	
Yiqi Yang.....	92
Bio-medical Application of Rylenediimide-cored Dendritic Polymers	
Meizhen Yin.....	93
Functional Biodegradable Elastomers for Biomedical Applications	
Zhengwei You.....	94
A Global Approach to Enhance the Mechanism of Thin Film Deposition from Liquid Solution; Toward the Efficient, Highly Reproducible, Long Lasting, Scalable and Low-cost Photo-Active Thin Films for Thin Film Solar Devices	
Fatemeh Zabihi.....	95
Electrospun Polymer Fiber Network for Acoustic Metamaterials	
Jianfeng Zang.....	96
Poly(dopamine)-Inspired Surface Functionalization of Polypropylene Tissue Mesh for Prevention of Intra-Peritoneal Adhesion Formation	
Tianzhu Zhang.....	97
Architecture, Self-assembly and Applications of Hybrid Polymers Based on Polyhedral Oligomeric Silsequioxane (POSS)	
Weian Zhang.....	98
Functional Nanofibers for Advanced Energy Storage by Centrifugal Spinning	
Xiangwu Zhang.....	99
Electrospun Fibrous Scaffolds with Shape Memory Effect for <i>in situ</i> Bone Regeneration	
Yanzhong Zhang.....	100
Construction of Silk Materials	
Yaopeng Zhang.....	101

Advanced Carbon and Silk Fibers/Fabric for Wearable Electronics	
Yingying Zhang.....	102
Assembly of Polymer-Tethered Inorganic Nanoparticles in Confined Spaces	
Jintao Zhu.....	103
The Design of Wearable Smart Mouthguard in Detecting Saliva and Study on the Properties of its Electrochemical Biosensors	
Nan Zhu.....	104
Precision Synthesis and Industrialization Efforts for Hyperbranched Polymers	
Xinyuan Zhu.....	105
3. Abstracts of Oral Presentation.....	106
Cellulose Nanofibers and their Polymer Composites from Indonesian Agricultural Wastes	
Farah Fahma.....	107
Advanced Oxide Ceramic Composites Based on Graphene	
Yuchi Fan	108
Advanced Double-network Hydrogel Fibers from Hydrophilic Polyurethane	
Bin Fei.....	109
Multifunctional Photonic Fibers: Sensing through Structure and Material	
Xian Feng.....	110
Highly Conductive One-Dimensional Nano Fibers: Silvered Electrospun Silica Nanofibers via Poly(dopamine) Functionalization	
Ye Fu	111
Nanofiber of Nanocellulose/ Sulfophenylatedpoly(ether ether ketone ketone) for Proton Exchange Membranes	
Wei Hu	112
Controllable Synthesis of 1D Hierarchical Nanostructures for Efficient Electrochemical Catalysis	
Yunpeng Huang.....	114
Electrospun Silver Ions-loaded Antibacterial Composite Fibrous Membranes for Guided Bone Regeneration	
Shue Jin.....	115
Multifunctional Electrospun Nanofiber for Air Filter	
Yanyun Ju.....	116
Electrospun Fibers for Electrocatalytic Oxygen Reduction Reaction	
Yongpeng Lei.....	117
Functionalization of Natural Wood Fiber Toward Highly Transparent Nanofibrous Paper	
Detao Liu.....	118
One-step Solvent Media Process Toward the Production of Cellulose Nanofibers	
Detao Liu.....	118
Design, Preparation and Application of One-dimensional Carbonaceous Electrocatalytic Nanocomposites	
Yue Miao	119
Heterogeneous Catalysis Supports Based on Synthetic Fibers	
Xianlei Shi.....	120

Rational Design for Copper Chalcogenide to Enhance the Photothermal Conversion Efficiency and their Application	
Qiwei Tian.....	121
Nanofibrous Scaffold for Highly Efficient Adsorption of Lanthanide Ions and its Photoluminescence	
Min Wang.....	122
Poiseuille Equation	
Qingwei Wang.....	123
Smart Fibers Based on Low Dimensional Conductive Materials	
Ranran Wang.....	124
Esterification of Polymorphs of Cellulose Nanocrystals: Crystallinity and Thermal Decomposition	
Zhenhua Wu.....	125
Zwitterion-Functionalized PEI/PVA Nanofibers Embedded in a Microfluidic Chip for Efficient Capture and Intact Release of Circulating Tumor Cells	
Yunchao Xiao.....	126
Transmission Electron Microscopy of Low-Dimensional Nanomaterials	
Fangfang Xu.....	127
Molecular Mobility and Physical Aging of Superglassy Polymer Membranes as Revealed by Dielectric Spectroscopy	
Huejie Yin.....	128
Improvement of Dyeability of Aromatic co-Polysulfonamide Fibers Using γ-ray Irradiation Induced Graft Polymerization	
Jinchao Yu.....	129
Fractal Carbon Nanotube Fibers with Mesoporous Crystalline Structure	
Hangbo Yue.....	129
Biodegradable PLA Non-woven Fabric with Enhanced Functionalization of Controllable Wettability for Efficient Water Purification	
Jiawei Zhang.....	130
4. Abstracts of Poster Presentation.....	131
Preparation and Electromagnetic Wave Absorption Properties of Cobalt/Carbon Composite Nanofiber Membranes	
Ibrahim Abdalla.....	132
Fabrication of Flexible Carbon Nanofiber Composite Electrode Embedded with Porous Silica Nanoparticles for Lithium Ion Batteries	
Ahmed A. Aboalh Hassan.....	135
Electrochemical Growth of Polyaniline on Active Carbon / Carbon Fiber Cloth with Enhanced Electrochemical Performance for Flexible Supercapacitors	
Yuerong Ba.....	138
Antibacterial Silk Fibroin Scaffolds Modified with 2-Hydroxypropyl Trimethyl Ammonium Chloride Chitosan	
Kai Chen.....	140
Study on the Relationship between Creep Behavior and Structure of Polyester Industrial	

Yarns	
Kang Chen.....	141
Physically Chemically Hybrid Crosslinking: An Efficient Way to Construct Strong, Tough, While Soft, Biodegradable Elastomers	
Shuo Chen.....	142
Surface Modification of PPTA Fibers by UV Irradiation-Accelerated Deposition of Catechol/Polyamine and Secondary Functionalization for High-Performance Polymer Composites	
Sixian Chen.....	143
Monodisperse Silver Nanoparticles loaded Thermo-responsive Nanofibrous membrane as a Free-standing SERS Substrate with Thermo-enhanced Efficiency	
Siyuan Che.....	145
Nanomedicine for Tumor Based on pH and Reduction-Responsive Polypeptide	
Yue Ding.....	146
Study on the Stab-resistant Performance of Composite Fabric with Resin Flakes	
Jiping Dong.....	147
A Biopolymer-Drug Conjugate Nanotheranostics for Multimodal Imaging-Guided Synergistic Cancer Photothermal-Chemotherapy	
Chang Du.....	148
Preparation, Structure and Mechanical Properties of Novel Nylon 56 Fibers	
Yassir A. Eltahir.....	149
3D Printed Continuous Flow Reactor for Inline Reaction Tracking	
Marcel Fassbender, Martin Wildemann.....	150
Regio-Selective Substitution at the 1,3- and 6,8-Positions of Pyrene for the Construction of Small Dipolar molecules	
Xing Feng.....	151
Preparation and Characterization of Graphene Modified Poly (ethylene glycol) based Novel Chemical Polyurethane Phase Change Fiber	
Ziwen Gan.....	152
In Situ Cross-Linking of Potato Starch Films and Control of its Enzymatic Degradability	
Ran Gao.....	153
Shear Induced Crystallization of Bimodal and Unimodal High Density Polyethylene	
Sumin Gao.....	154
Preparation and Characterization of Carboxymethyl Chitosan Base Superabsorbent Composite Sponge	
Xing Ge.....	155
Controllable Micro-nano Assembly of Bio-functionalized Poly(3,4-ethylenedioxythiophene) and their Applications in Tumor Cell Capturing	
Zhi Geng.....	156
Starch-graft-Polyacrylonitrile Nanofibers by Electrospinning	
Yumei Gong.....	157
Functionalized Polymer Matrices for Metal Catalysis by Electrospinning	
Franziska Griesing.....	159
Synthesis and Texture Transformation of Cellulose Side Chain Liquid Crystals	

Yangyang Han	159
Effect of Graphene Oxide on Interface of Carbon Fiber/Polyetheretherketone Composites	
Elwathig. A. M. Hassan.....	160
Interlayer-Functionalization of α-ZrP with Vinyl Groups and its Thoil-ene Click for improving Grafting Ratio	
Ahmed Hossamaldin	161
Preparation of Porous Ultrafine SF Fibers via Selective Dissolution of Electrospun SF/PLA Blend Fibers	
Jiwei Huang.....	162
Amine(imine)diphosphine Iron Catalysts for Asymmetric Transfer Hydrogenation of Ketones and Imines	
Shangfei Huo.....	162
Synthesis of Monodisperse and Porous Ag Nanoparticles/Polystyrene Microcomposite Particles by Seeded Suspension Polymerization	
Xiaohuan Ji.....	163
Interaction between Carbon Black and NMMO in the Preparation of Dope Dyed Lyocell Fibers	
Hong Jin	164
Fabrication of Nano-sized Attapulgite-based Aerogels as Anode Material for Lithium Ion Batteries	
Ye Lan	165
The Interaction between Graphene Oxide and Polyacrylonitrile in Spinning Solutions	
Fengmei Li	167
Preparation a Novel Fluorescent Emulsion: a Possible Way to Solve the ACQ Effect of Traditional Fluorescent Molecules	
Weili Li.....	168
Preparation of Nanofibers by Electrospinning and its Application in Filter Masks	
You Li.....	169
Effects of Poloxamer 188 on the Structure and Properties of PLA-CS Nerve Guidance Conduits	
Gandong Liu.....	170
Preparation and Characterization of Halogen-Free Flame Retardant Polyamide 6 Fiber	
Ke Liu	171
A Novel Approach to Design A Nanoporous Polyethylene/Polyester Composite Fabric for Human Body Cooling	
RongLiu.....	172
Bladder Acellular Matrix Hydrogel Dually-Reinforced with Silk Fibroin Mats and Biocompatible Cross Linker	
Wenjing Liu.....	173
Preparation of Paclitaxel/Polysaccharides Micro-nano Fibers Based on Non-Covalent Interactions Assembly	
Yongjia Liu, Bangshang Zhu.....	174
Chemical Crosslinked EVOH Nanofiber Aerogels with Superelasticity and Superoleophilicity for Removal of Oils and Organic Solvents	

Jianwei Lu	175
Effect of Aging Environment on the Properties of Basalt Fiber	
Lida Luo	176
Effect of Redox States of Iron in Basalt Fiber on its Mechanical Properties	
Lida Luo	177
Facile Synthesis of Polyaniline-Nanorods/MnO₂ Nanocomposites for Supercapacitor Electrodes with Improved Electrochemical Properties	
Mebrahtu Melake Mezgebe.....	178
Synthesis and Controllable Time Reaction of Crosslink Organic-Inorganic Hybrids with Near Infrared Absorption	
Nahla Omer	179
Study on the Interfacial Tension of Immiscible Polystyrene/Polypropylene Blend with Improved Deformed Drop Retraction Method	
Dan Pan	180
A Knittable Fiber-shaped Supercapacitor based on Commercial Polyacrylonitrile Thread for Wearable Electronics	
Wei Pan, Yuerong Ba.....	182
Ring-Opening Metathesis Polymerization of Norbornene Derivatives with Long Flexible Functionalized Side Group	
Haiyan Pei	184
Functionalization of Activated Carbon Fiber with Nano Titanium Dioxide as Efficiency Filter Material for Formaldehyde Removal	
Kemei Pei	186
An Ultra-sensitive and Stretchable Nanofiber-based Flexible Sensor for Electronic Skin Applications	
Kun Qi.....	187
Preparation of Conductive Textile Electrodes and Their Properties	
Haiming Qin.....	188
Preparation and Properties of Polyamide 6 Fiber Nibs	
He Ren.....	189
Growth of C₃N₄ Nanosheets on Carbon-fiber Cloth as Flexible and Macroscale Filter-membrane-shaped Photocatalyst for Degrading the Flowing Wastewater	
Xiaofeng Shen	190
Core-shell Nanocapsules Containing Essential oil for Textile Application	
Guang Shi.....	191
An Ultra-high Performance Fiber Catalyst for Biomass Conversion	
Xianlei Shi.....	193
Preparation and Fluorescence Property of PET Luminescence Fibers with Different Rare Earth Complexes	
Dengkun Shu.....	194
Preparation and Characterization of Ternary Poly(arylene ether sulfone) Copolymer Nanofibrous Membranes via Soutlion-Blowing	
Guocheng Song	199
Preparation and Mechanical Properties of Cellulose /Antarctic Krill Protein Composite	

Fiber	
Jingxing Song.....	201
The Synthesis of PEDOT: PSS and its Application in Supercapacitor Electrode Materials	
Xianqiang Sun.....	202
Novel and Reusable Porous Linear Polyimide Electrospun Nanofibers for Hot Oil Adsorption	
Lidong Tian.....	203
Electrospinning of Chitosan/Pullulan Nanofiber Mats	
Wajeeh Ullah.....	204
Preparation and Filtration Properties of Porous PET Nano-fibrous Membrane	
Lina Wang.....	205
Study on Preparation of Rare Earth Fluorescent Fiber by Melt Spinning	
Shiwei Wang.....	206
Efficient Visible-light Driven mpg-C₃N₄ /TiO₂ Composite Photocatalyst: Facile Preparation and Enhanced Catalytic Activity	
Shuang Wang.....	207
Study on Structures and Properties of Ultra-Hot Drawing UHMWPE Fibers Fabricated via Dry Spinning Method	
Xinwei Wang.....	209
Air Drawing Effect of the Auxiliary Nozzle in the Melt Blowing Process	
Lili Wu.....	211
Design, Construction and Characteristics of Flexible Janus Nanofibers and Their Arrays Endowed with Tuned Fluorescent Color-Electricity Bifunctionality	
Xue Xi.....	212
Study on Preparation of Carbon Fiber Felt by Melt Melting	
Wenchi Xue.....	214
Interfacial Complexation of Cellulose Nanocrystals with Synthetic and Bio-based Polyelectrolytes	
Hajo Yagoub.....	215
One-dimensional Mg_xTi_yO_{x+2y} Nanostructures: General Synthesis and Enhanced Photocatalytic Performance	
Guorui Yang.....	216
Stab -Resistant Performance of Fabrics with Hard Particles	
Wanqiu Yang.....	217
Polypyrrole assisted Cu NPs Deposition on papers for energy storage	
Yang Yang.....	218
FeCo Nanoparticles-embedded Carbon Nanofibers as Robust Peroxidase Mimics for Sensitive Colorimetric Detection of L-cysteine	
Ze Zhou Yang.....	219
Establishment and Application of a Test Method for the Fibrillation of Regenerated Cellulose Fibers	
Wei Yuan.....	220
One-Pot Synthesis and Characterization of Graphene with Grafted Phosphorus-Nitrogen Flame Retardant	

Fanxin Zeng	221
Flexible Asymmetric Fiberlike Supercapacitors based on Ternary NiCo₂Se₄ Nanosheet and NiCo₂O₄@PPy Electrodes	
Daohong Zhang	223
Graphene-oxide Modified Sodium-alginate / Krill-protein Composite Fiber	
Rui Zhang	224
Fabrication of Core-spun Yarn Containing a Metal Wire and Study of its Structure and Properties for Intelligent Wearable Device	
Yan Zhang	225
Construction and 3D Printing of Fiber Reinforced Biomimetic Hybrid Materials for Dental Restoration	
Menglu Zhao	226
Tunicate Cellulose Nanofiber-Starch-Lignin Composite Film: Strong, 100% Bio-based and Completely Green Composite Film Best Suitable for Coating and Packaging of Food and Medicine	
Yadong Zhao	227
Oil-water Interface Self Assembly of Bowl-like Magnesium Nickel Oxide Monolayer Nanofilm for Enhanced Tetrahydrofuran Sensing	
Yan Zhao	228
Preparation of Waterborne Epoxy Resin Emulsion by Middle-Temperature Radical Graft Polymerization	
Wankai Zheng,	229
Preparation and Characterization of Temperature Stimulus-Responsive Hollow Nanofiber	
Xie Zheng.....	230
Numerical Simulation of Melt Flow Behavior of ABS/CNT Composite in FDM Process	
Jin Zhu.....	231
Isolation and Application in Polyurethane Foam of Lignin from Enzymatic Hydrolysis Residues	
Shiyun Zhu	232
Preparation and Characterization of Electrospun Fiber Mats from Regenerated <i>Antheraea pernyi</i> Silk Fibroin Aqueous Solutions	
Shengzhi Zou	234
PLGA Fiber Leads into the "Big Fiber Era"	
Hong Song.....	235