

Tuesday, August 5, 2014

Opening Remarks and Plenary Session I

8:45 AM-10:00 AM

Room: Metropolitan III

8:45 AM

Opening Remarks

9:00 AM

(ICE-001-2014) Electrically-Assisted Subsonic and Supersonic Solution Blowing of Monolithic and Core-Shell Petroleum-Derived and Bio-Polymer Nanofibers: Experiments and Modeling

Alexander L. Yarin*, University of Illinois at Chicago, USA

9:45 AM

Break

Novel Developments in Electrospinning and Other Nanofiber Fabrication Technologies

I

10:00 AM-12:00 PM

Room: Metropolitan III

Session Chair(s): Wolfgang Sigmund, Il-Doo Kim

10:00 AM

(ICE-002-2014) Multifunctional polymer particles and fibers by electrohydrodynamic co-jetting (Invited Speaker)

Joerg Lahann*, University of Michigan, USA

10:30 AM

(ICE-003-2014) Scaling up nanofiber production (Invited Speaker)

Eugene Smit*, The Stellenbosch Nanofiber

Company, South Africa

11:00 AM

(ICE-004-2014) Feasibility of using deflector plates for achieving fiber alignment

Jochen Walser*, Stephen J Ferguson, ETH Zurich, Switzerland; Marco D Caversaccio, University of Bern, Inselspital, Switzerland

11:20 AM

(ICE-005-2014) Free Surface Electrospun Polyvinylidene Fluoride Membranes for Direct Contact Membrane Distillation

Keith M Forward*, Erika Estrada, Ryan Oh, Scott West, Brian Hensley, California State Polytechnic University, Pomona, USA

11:40 AM

(ICE-006-2014) Nanospider™ - A unique way to produce nanofibers

Cagri Tekemen*, Elmarco s.r.o., Czech Republic

Polymer Nanofibers I

10:00 AM-12:00 PM

Room: Metropolitan II

Session Chair(s): Dario Pisignano, Kyung Paik

10:00 AM

(ICE-007-2014) Cross-linked electrospun polyvinyl alcohol membranes and their potential applications (Invited Speaker)

Yen Bach Truong*, Sabrina Maisch, Yuan Gao, Chi P Huynh, James Mardel, Mustafa Musameh, Mark Hickey, Ilias L Kyratzis, CSIRO, Australia

10:30 AM

(ICE-008-2014) Internal nanostructure of electrospun polymer nanofibers (Invited Speaker)

Andrea Camposeo*, National Nanotechnology Laboratory of CNR-NANO, Italy; Israel Greenfeld, Technion - Israel Institute of Technology, Israel; Francesco Tantussi, Università di Pisa and INO-CNR Sezione di Pisa, Italy; Maria Moffa, National Nanotechnology Laboratory of CNR-NANO, Italy; Francesco Fuso, Maria Allegrini, Università di Pisa

and INO-CNR Sezione di Pisa, Italy; Eyal Zussman, Technion - Israel Institute of Technology, Israel; Dario Pisignano, Università del Salento, Italy

11:00 AM

(ICE-009-2014) Spontaneous Formation of Metal-Polymer Hybrid Nanostructures Using Functionalized Electrospun Polymer Nanofibers

Ho Yeon Son, Ji Hyun Ryu, Haeshin Lee, Yoon Sung Nam*, KAIST, Republic of Korea

11:20 AM

(ICE-011-2014) Controlling the Crystallinity and Morphology of Electrospun PCL Fibres

Teodor-Matei Cirstea*, Peter Dobson, Andrew Watt, University of Oxford, United Kingdom

Ceramic and Composite Nanofibers I

10:00 AM-12:00 PM

Room: Metropolitan I

Session Chair(s): Joseph Tracy, Younan Xia

10:00 AM

(ICE-012-2014) Electrospinning Activities at the Australian National University (Invited Speaker)

Adrian Lowe*, Australian National University, Australia

10:30 AM

(ICE-013-2014) Electrospinning: A route to synthesize ceramic nanocomposites on a single fiber or particle (Invited Speaker)

Jennifer S Andrew*, Justin D Starr, Maeve A Budi, University of Florida, USA

11:00 AM

(ICE-014-2014) Electrospun PZT Nanofibers: Morphology Control and Rapid Thermal Processing (RTP)

Arsen Gevorkyan, Gennady E Shter, Gideon S Grader*, Technion, Israel

11:20 AM

(ICE-015-2014) Elaboration of AlN nanofilaments by electrospinning

Tony Gerges*, Vincent Salles, Laboratoire des multimateriaux et interfaces (UMR 5615 Université Lyon 1-CNRS), France; Samuel Bernard, Institut Européen des Membranes (UMR 5635-CNRS/ENSCM-UM2), France; Arnaud Brioude, Gabriel Ferro, Laboratoire des multimateriaux et interfaces (UMR 5615 Université Lyon 1-CNRS), France

11:40 AM

(ICE-016-2014) Fabrication of ceramic porous LiCoOx nanofibrous mesh

Yakup Aykut*, Uludag University, Turkey; Saad Khan, North Carolina State University, USA; Behnam Pourdeyhimi, North Carolina State University, USA

Novel Developments in Electrospinning and Other Nanofiber Fabrication Technologies

II

1:30 PM-5:50 PM

Room: Metropolitan III

Session Chair(s): Joerg Lahann, Eugene Smit

1:30 PM

(ICE-017-2014) Dramatic difference in morphology and core content of electrospun core-sheath fibers deposited on hydrophobic and hydrophilic substrates

Dae Kyom Kim, Seoul National University, Republic of Korea; Jan P F Lagerwall*, University of Luxembourg, Luxembourg

1:50 PM

(ICE-018-2014) A process monitoring system for a multi-jet electrospinning head

Luca Bonura, Andrea Cacace, Giacomo Bianchi*,
Alessio Varesano, National Research Council of
Italy, Italy

2:10 PM

(ICE-019-2014) Electrostatic template effect during alternative electrospinning and electrospaying on micropatterned collectors: Towards nanofibrous and microstructured 2D and 3D composites

Guy Schlatter*, Salima Nedjari, Corinne Wittmer,
Bilal El Maghnouji, Anne Hébraud, University of
Strasbourg / CNRS, France

2:30 PM

(ICE-020-2014) Effect of Relative Humidity on the Flatness of Electrospun Microtube Array Membranes (MTAMs)

Zong-Han Chu, Syang-Peng Rwei, National Taipei
University of Technology, Taiwan; Yao-Chi Shu, Lee-
Ming Institute of Technology, Taiwan; Chien-Chung
Chen*, Chao-Hsuan Chen, Taipei Medical
University, Taiwan

2:50 PM

(ICE-021-2014) Structural tuning of electrospun nano-porous poly-L-lactic acid (PLLA) microtube array membranes (MTAMs)

Jian-Jhih Ciou, Jen-Chang Yang, Taipei Medical
University, Taiwan; Cheng-Huang Lin, National
Taiwan Normal University, Taiwan; Chien-Chung
Chen*, Taipei Medical University, Taiwan

3:10 PM

(ICE-022-2014) Plasma-assisted electrospinning: the many facets of a process

Laura Calzà, Vittorio Colombo, Alma Mater
Studiorum- Università di Bologna, Italy; Luisa Stella
Dolci, Interdepartmental Center for Industrial
Research, Italy; Andrea Fiorani, Davide Fabiani,
Maria Letizia Focarete, Alma Mater Studiorum -
Università di Bologna, Italy; Matteo Gherardi,
Chiara Gualandi, Romolo Laurita*, Anna Liguori,
Alma Mater Studiorum- Università di Bologna, Italy;
Santiago David Quiroga, Alma Mater Studiorum -
Università di Bologna, Italy; Paolo Sanibondi, Alma
Mater Studiorum- Università di Bologna, Italy;

Marco Zaccaria, Alma Mater Studiorum - Università
di Bologna, Italy

3:30 PM

Break

3:50 PM

(ICE-023-2014) Potential of Electrospun Polymeric Microtube Array Membranes (MTAMs)

Chien-Chung Chen*, Jen-Chang Yang, Taipei
Medical University, Taiwan; Cheng-Huang Lin,
National Taiwan Normal University, Taiwan; Hong-
Ting V Lin, National Taiwan Ocean University,
Taiwan

4:10 PM

(ICE-024-2014) 3D Self-supported Electrospun Nanomats of Cerium doped Titania Photocatalysts

Selda Topcu*, Perena Gouma, Stony Brook
University, USA

4:30 PM

(ICE-025-2014) Electrospinning as a Polymer Blending Technique to Fabricate Adhesives

Shing-Chung Wong*, Xiaojing Ma, Guang Ji, Todd A
Blackledge, University of Akron, USA

4:50 PM

(ICE-026-2014) Lysozyme encapsulation in porous fibers of poly(-lactic acid)-alginate through coaxial electrospinning

Anant Raheja*, Indian Institute of Technology
Madras, India; Alexandra Smith, University of
Guelph, Canada; Chandra T Sainathan, Natarajan T
Srinivasan, Indian Institute of Technology Madras,
India; Loong-Tak Lim, University of Guelph, Canada

5:10 PM

(ICE-027-2014) Multi-Structured Nanofibers and Their Wetting Property

Yong Zhao*, Beihang University, China

5:30 PM

(ICE-028-2014) Nanofiber Composites of Pluronic and Polyvinyl Alcohol Manufacture and Characterization

Mahir H Es-Saheb*, Khalil A Khalil, Ahmed Elzatahry, KSU, Saudi Arabia

Polymer Nanofibers II

1:30 PM-5:50 PM

Room: Metropolitan II

Session Chair(s): Yen Truong, Andrea Camposeo

1:30 PM

(ICE-029-2014) Photon waveguiding and optical resonances management by electrospun nanofibers (Invited Speaker)

Andrea Camposeo, Maria Moffa, Rita Manco, Istituto Nanoscienze-CNR, Italy; Vito Fasano, Istituto Italiano di Tecnologia, Italy; Giovanni Morello, Luana Persano, Istituto Nanoscienze-CNR, Italy; Dario Pisignano*, Università del Salento, Italy

2:00 PM

(ICE-030-2014) Novel nanofiber Anisotropic Conductive Films (ACFs) for ultra-fine pitch assembly (Invited Speaker)

Kyung Wook Paik*, Tae-Wan Kim, Sang-Hoon Lee, KAIST, Republic of Korea

2:30 PM

(ICE-031-2014) Preparation of extracting polymer wool from polystyrene and Aliquat 336 via electrospinning and its application for online preconcentration of thiocyanate in flow injection analysis

Yukie O'Bryan*, The University of Melbourne, Australia; Yen B Truong, CSIRO Materials Science and Engineering, Australia; Robert W Cattrall, The University of Melbourne, Australia; Ilias L Kyratzis, CSIRO Materials Science and Engineering, Australia; Spas D Kolev, The University of Melbourne, Australia

2:50 PM

(ICE-032-2014) Unbreakable Codes in Electrospun Fibers to Stop Medicine Counterfeiting

Chaobo Huang*, Nanjing Forestry University, China

3:10 PM

(ICE-033-2014) Bio-Based Biocomposite Electrospun Scaffolds: From design to In-Vitro Investigation of Cell Differentiation

Daniel Grande*, Julien Ramier, Valérie Langlois, Estelle Renard, Institut de Chimie et des Matériaux Paris-Est, France; Olya Stoilova, Nevena Manolova, Iliya Rashkov, Institute of Polymers, Bulgaria; Patricia Albanese, Laboratoire "Croissance, Réparation et Régénération Tissulaires", France

3:30 PM

Break

3:50 PM

(ICE-034-2014) Pulsatile drug release from electrospun poly(ethylene oxide)-sodium alginate blend nanofibres

Yacine Kaassis*, UCL, United Kingdom; Neil Young, University of Oxford, United Kingdom; Naoko Sano, Newcastle University, United Kingdom; Hamid A. Merchant, University of Huddersfield, United Kingdom; Deng-Guang Yu, University of Shanghai, China; Nicholas P Chatterton, London Metropolitan University, United Kingdom; Gareth R Williams, UCL, United Kingdom

4:10 PM

(ICE-035-2014) Polymer Nanofiber Interleaved Carbon/Epoxy Composites and Its Performance

Kunigal N. Shivakumar*, Raghu Panduranga, North Carolina A&T State University, USA; Ebonni J Adams, The Boeing Company, USA

4:30 PM

(ICE-036-2014) Thermal analysis of nanofibres: The importance of heating rate

Iline Steyaert*, Ghent University, Belgium; Guy Van Assche, Hubert Rahier, Vrije Universiteit Brussel, Belgium; Karen De Clerck, Ghent University, Belgium

4:50 PM

(ICE-037-2014) Special wettability materials prepared by electrospinning

Nü Wang*, Jing Wu, Yong Zhao, Beihang University,

China

5:10 PM

(ICE-039-2014) COOH-Functionalized Poly (3,4-ethylenedioxythiophene) Electrospun Nanofibers for Sensor Electrodes

Minhui Dai*, Ziwen Jiang, Vincent Rotello, Sam R Nugen, University of Massachusetts, USA

Ceramic and Composite Nanofibers II

1:30 PM-5:50 PM

Room: Metropolitan I

Session Chair(s): Adrian Lowe, Jennifer Andrew

1:30 PM

(ICE-040-2014) Large Area Electrospinning of Carbon Nanotubes for Advanced Composite Materials

Simon George King*, S. Ravi P Silva, Vlad Stolojan, University of Surrey, United Kingdom; Andrew J Goodwin, Thomas Swan & Co. Ltd., United Kingdom

1:50 PM

(ICE-041-2014) The influence of viscosity on the stable electrospinning of silica nanofibers

Jozefien Geltmeyer*, Klaartje De Buysser, Karen De Clerck, Ghent University, Belgium

2:10 PM

(ICE-042-2014) Iron-based electrospun nanostructures - Innovative magnetic and actuating nanocomposites

Tomas Fiorido, Université Lyon 1, France; Jérémy Galineau, INSA Lyon, France; Vincent Salles*, Université Lyon 1, France; Laurence Seveyrat, Fouad Belhora, Pierre-Jean Cottinet, INSA Lyon, France; Ling Hu, Université Lyon 1, France; Yang Liu, INSA Lyon, France; Benoît Guiffard, Université de Nantes, France; Agnès Bogner-Van De Moortele, Thierry Epicier, Daniel Guyomar, INSA Lyon, France; Arnaud Brioude, Université Lyon 1, France

2:30 PM

(ICE-043-2014) Flexible and freestanding mats consisting of electrospun ceramic nanofibers for photo-detector application

Min Xi, Yong Zhao, Xiaojing Ma, Hao Fong*, South Dakota School of Mines and Technology, USA

2:50 PM

(ICE-044-2014) A comparative study on fabrication of Cu₂ZnSnS₄ (CZTS) fibers using acetate and chloride metal precursors

Mustafa Selman Yavuz*, Selcuk University, Turkey

3:10 PM

(ICE-045-2014) One-pot route to Carbon Electrospun Fibers decorated with Metal-based Nanomaterials

Aziz Cherifi*, Adriana Both Engel, Mikhael Bechelany, Sophie Tingry, David Cornu, ENSCM, France

3:30 PM

Break

3:50 PM

(ICE-046-2014) Flexible PAN/ZnO photocatalyst nanofibers prepared by coaxial electrospinning

Kanchat Chutchakul, Varong Pavarajarn*, Chulalongkorn University, Thailand

4:10 PM

(ICE-048-2014) Nanofibre electrospinning of composite PVA-Silica

Yeshiv Singh*, Deresh Ramjugernath, Innocent Davidson, UKZN, South Africa; Leon Chetty, Ethekewini municipality, South Africa

4:30 PM

(ICE-049-2014) Fabrication and Characterization of a Microreactor of Au/TiO₂ in Microtube Array Membrane (MTAM) for Oxidative Conversion of Carbon Monoxide

Hsien-Lung Chiu*, Thomas C.K. Yang, Zong-Han Chu, National Taipei University of Technology, Taiwan; Chien-Chung Chen, Taipei Medical University, Taiwan

4:50 PM

(ICE-050-2014) Switchable Self-cleaning surfaces from electrospun TiO₂ nano-rice structures

Anand Ganesh Venkatesan*, Singapore University of Technology and Design (SUTD), Singapore; Saman Safari Dinachali, Institute of Materials Research and Engineering, Singapore; A. Sreekumaran Nair, Amrita Centre for Nanosciences & Molecular Medicine, AIMS Ponnekkara., India; Avinash Baji, Singapore University of Technology and Design (SUTD), Singapore; Seeram Ramakrishna, National University of Singapore, Singapore

5:10 PM

(ICE-051-2014) Controlling the morphology and microstructure of electrospun nickel oxide nanofibers

Abdullah Khalil*, Raed Hashaikeh, Masdar Institute of Science & Technology, United Arab Emirates

Poster Session

6:00 PM-8:00 PM

(ICE-P001-2014) Simulation of core-shell flow in the Taylor-cone by finite element method

Lasse Christiansen*, Peter Fojan, Aalborg University, Denmark

(ICE-P003-2014) Numerical Simulation of Multiphase Flows in Electrospinning

Po-Wen Hwang, Yin-Zheng Wu, Feng Chia University, Taiwan; Chien-Chung Chen*, Taipei Medical University, Taiwan

(ICE-P004-2014) Modeling the Formation of Electrospun Fibre Materials

Milan Mijajlovic, Vladomir Zivkovic, The University of Adelaide, Australia; David J Nielsen*, Eva I Micich, Defence Science and Technology Organisation, Australia; Ilias L Kyratzis, CSIRO, Australia; Mark J Biggs, The University of Adelaide, Australia

(ICE-P005-2014) Coaxial electrospun nanofibers for protein formulation in the solid state

Ukrit Angkawinitwong*, Steve Brocchini, Gareth R Williams, UCL School of Pharmacy, United Kingdom

(ICE-P006-2014) Ultra-violet light modified electrospun polymeric mesh: Spatial control of wettability, protein adsorption, and cell adhesion

Joseph Steven Hersey*, Jonathan D Freedman, Mark W Grinstaff, Boston University, USA

(ICE-P007-2014) Wound dressing based on Chitosan/Polyvinyl Alcohol Nanofibers Mesh

Paulo Picciani*, Paula F Lanzillotti, Cristina T Andrade, Federal University of Rio de Janeiro, Brazil

(ICE-P008-2014) PVA-PLA Core-Shell Fibers by Coaxial Electrospinning

Paulo Picciani*, Raquel P Gonçalves, Marcos L Dias, Federal University of Rio de Janeiro, Brazil

(ICE-P009-2014) Nerve cuff electrode deposited with drug loaded biodegradable nanofibers for suppression of early stage inflammatory response

Dong nyoungh Heo*, Kyung Hee University, Republic of Korea; Sung Jin Park, Soo Hyun Lee, Ji Yoon Kang, Korea Institute of Science and Technology, Republic of Korea; Ji Eun Kim, Su-Jin Song, Eun Young Heo, Il Keun Kwon, Kyung Hee University, Republic of Korea

(ICE-P010-2014) Electrospun Meshes as Simple Surface Tension Sensors for Point of Care Diagnosis

Eric J. Falde*, Boston University, USA; Stefan T Yohe, Genentech, Inc., USA; Mark W Grinstaff, Boston University, USA

(ICE-P011-2014) Electrospun maleic anhydride grafted poly(lactic acid) bio-nanocomposites reinforced with cellulose nanocrystals

Qinglin Wu*, Chengjun Zhou, Louisiana State University, USA

(ICE-P012-2014) Electrospun chitosan nanofibers with controlled levels of silver nanoparticles. Preparation, Characterization and Antibacterial Activity

Sang Jin Lee*, Dong Nyoung Heo, Wan Kyu Ko, Ji Eun Kim, Dong Hyun Lee, Su Jin Song, Eun Young Heo, School of Dentistry, Kyung Hee University, Republic of Korea

(ICE-P013-2014) The preparation and characterization of lysine doped polypyrrole @spider silk protein core-shell structure fibrous scaffold containing nerve growth factor

Qiaozhen Yu*, Jiaxing University, China

(ICE-P014-2014) Oral delivery of biopharmaceuticals by encapsulation into electrospun fish sarcoplasmic proteins

Karen Stephansen*, Technical University of Denmark, Denmark; Maria Garcia Diaz, University of Copenhagen, Denmark; Flemming Jessen, Ioannis S Chronakis, Technical University of Denmark, Denmark; Hanne M Nielsen, University of Copenhagen, Denmark

(ICE-P015-2014) Advantages of Surface-Initiated ATRP (SI-ATRP) for the Functionalization of Electrospun Materials

Chiara Gualandi*, University of Bologna, Italy; Cong Duan Vo, University of Manchester, United Kingdom; Maria Letizia Focarete, Mariastella Scandola, University of Bologna, Italy; Antonino Pollicino, University of Catania, Italy; Giuseppe Di Silvestro, University of Milano, Italy; Nicola Tirelli, University of Manchester, United Kingdom

(ICE-P016-2014) Comparative performance of collagen nanofibers electrospun from different solvents and stabilized by different crosslinkers

Chiara Gualandi*, Andrea Fiorani, University of Bologna, Italy; Silvia Panseri, Rizzoli Orthopaedic Institute, Italy; Monica Montesi, National Research Council of Italy, CNR, Italy; Maurilio Marcacci, Rizzoli Orthopaedic Institute, Italy; Maria Letizia Focarete, Adriana Bigi, University of Bologna, Italy

(ICE-P017-2014) Electrospun-hybrid scaffolds for bone tissue engineering

Martina Roso*, Monica Dettin, Alessandra Lorenzetti, Carlo Boaretti, Michele Modesti, University of Padova, Italy

(ICE-P018-2014) Atmospheric plasma surface modification of electrospun poly(L-lactic acid): effect on mat properties and cell culturing

Laura Calzà, Interdepartmental Center for Industrial Research, Italy; Vittorio Colombo, Alma Mater Studiorum- Università di Bologna, Italy; Luisa Stella Dolci, Interdepartmental Center for Industrial Research, Italy; Andrea Fiorani, Maria Letizia Focarete, Alma Mater Studiorum - Università di Bologna, Italy; Matteo Gherardi, Romolo Laurita*, Anna Liguori, Alma Mater Studiorum- Università di Bologna, Italy; Santiago David Quiroga, Alma Mater Studiorum - Università di Bologna, Italy; Paolo Sanibondi, Alma Mater Studiorum- Università di Bologna, Italy

(ICE-P019-2014) A facile method for electrospinning of poly (vinyl alcohol)/ chitosan/graphene oxide biocomposite nanofibers

Jongwan Kim*, Yanan Liu, Mira Park, Hak-Yong Kim, Chonbuk National University, Republic of Korea

(ICE-P020-2014) Compressed Electrospun Gelatin-Honey Membranes for Dental Applications

Isaac A. Rodriguez*, The University of Memphis, USA; Brenton W Burger, Dulles Institute for Oral/Maxillofacial Surgery, USA; Gary L Bowlin, The University of Memphis, USA

(ICE-P021-2014) Controlled release of dexamethasone loaded in core-shell SF/PEO nanofibers to modulate inflammatory response

Salem S Al-Deyab*, King Saud University, Saudi Arabia; Weiming Chen, Donghua University, China; Mohamed H El-Newehy, King Saud University, Saudi Arabia; Xiumei Mo, Donghua University, China

(ICE-P022-2014) Tungsten Oxide Nanofibers From Electrospun PVP-Based Aqueous Precursors

Andrei Stanishevsky*, Joshua Wetuski, University of Alabama at Birmingham, USA; Eva Košťáková, David Lukaš, Technical University of Liberec, Czech Republic

(ICE-P023-2014) Biocomposite material for bone recovery

Wilson Alves Ribeiro Neto, Universidade Federal de São Carlos, Brazil; Luc Avérous, Guy Schlatter, Université de Strasbourg, France; Rosario Bretas*, Universidade Federal de São Carlos, Brazil

(ICE-P024-2014) Microstructural and piezoelectric characterization of BST fibers

Felipe A Berutti*, Biana Faraco, Annelise Kopp Alves, Carlos P Bergmann, UFRGS, Brazil

(ICE-P025-2014) Influence of electrospinning and heat treatment conditions on TiO₂ fibers properties

Annelise Kopp Alves*, Luana Soares, Felipe A Berutti, Carlos P Bergmann, UFRGS, Brazil

(ICE-P026-2014) Characterization of hollow BaTiO₃ nanofibers and intense visible photoluminescence

Kui Woong Lee, Jong-Won Yoon*, Dankook University, Republic of Korea

(ICE-P027-2014) Process optimization of electrospun Ceramic Nanofibers from Preceramic Polymers and their use for Hierarchically structured fibers production

Martina Roso*, Anran Guo, Carlo Boaretti, Paolo Colombo, Michele Modesti, University of Padova, Italy

(ICE-P028-2014) Effect of grain size distribution on the magnetic behavior of CoFe₂O₄ nanofibers

Diana Maria Carrillo Flores*, Advanced Materials Research Center, Mexico; Jose T Elizalde Galindo, Universidad Autonoma de Ciudad Juarez, Mexico; Veronica Corral Flores, Centro de investigacion en Quimica Aplicada, Mexico; Jose R Farias Mancilla, Universidad Autonoma de Ciudad Juarez, Mexico; Carlos Ornelas Gutierrez, Francisco Espinosa

Magaña, Advanced Materials Research Center, Mexico

(ICE-P029-2014) Preparation of flexible YSZ ceramic nanofibers by sol-gel assisted electrospinning

Wei Li, Cheng Li*, Dairong Chen, Xiuling Jiao, Shandong University, China

(ICE-P030-2014) Synthesis and properties of hollow structure Li_{2-x}MnSixP_{1-x}O₄ nanofibers by electrospinning method

Bora Kim*, Choeng Kim, Byeongchan Jang, Subin Yang, Jongtae Son, Korea National University of Transportation, Republic of Korea

(ICE-P031-2014) Preparation and characterization of conductive polyurethane composite nano fibers via electrospinning

Nirmala Rajkumar*, Navamathavan Rangasamy, Chonbuk national university, Republic of Korea; Soo Jin Park, Inha University, Republic of Korea; Hak Yong Kim, Chonbuk National University, Republic of Korea

(ICE-P032-2014) Environmental Pollutants Degradation using Photocatalyst-Carbon Nanofiber composites

Soonhyun Kim*, Minsun Kim, Sang Kyoo Lim, Sung-Ho Hwang, Daegu Gyeongbuk Institute of Science and Technology (DGIST), Republic of Korea

(ICE-P033-2014) Effective nickel oxide nanofibers toward methanol oxidation: advantage of the nanofibrous morphology

Baek Ho Lim*, Hak-Yong Kim, Mira Park, Nasser Barakat, Chonbuk National University, Republic of Korea

(ICE-P034-2014) Electrospun CdS-TiO₂ doped carbon nanofibers for visible- light-induced photocatalytic hydrolysis of ammonia borane

Baek Ho Lim*, Bishweshwar Pant, Mira Park, Hak-Yong Kim, Chonbuk National University, Republic of Korea

(ICE-P035-2014) Biocatalytic polymer nanofibers for stabilization and delivery of enzymes

Dana Wong*, Minhui Dai, Joey Talbert, Sam Nugen, Julie Goddard, University of Massachusetts, Amherst, USA

(ICE-P036-2014) Effect of heat treatment and composition in the photoactivity of Sn-Si-TiO₂ fibers

Annelise Kopp Alves*, Marcia Manique, Felipe A Berutti, Carlos P Bergmann, UFRGS, Brazil

(ICE-P037-2014) NO_x reduction during methane combustion using electrospun fibers

Felipe A Berutti*, Andre Tabarelli, Annelise Kopp Alves, Carlos P Bergmann, UFRGS, Brazil

(ICE-P038-2014) A novel functional biodegradable electrospun membrane for nutrient recovery

Chiara Gualandi*, Laura Paltrinieri, Andrea Zucchelli, University of Bologna, Italy; Carmela Maria Cellamare, Roberto Farina, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, ENEA, Italy; Maria Letizia Focarete, University of Bologna, Italy

(ICE-P039-2014) Integrated Coal Gasification and Electrochemical Fuel Cell Combined Cycle

Rohit Nana Wakode*, Indian Institute of Technology, Bombay, India

(ICE-P040-2014) Preparation of Carbon Nanofiber Containing Plasma-Modified CNT via Electrospinning Process for Supercapacitor Applications

Chuh-Yung Chen, Wei-Min Chang*, Chi-Yuan Hung, Wu Meng-Yueh, National Cheng Kung University, Taiwan; Cheng-Chien Wang, Southern Taiwan University, Taiwan

(ICE-P041-2014) Ni_xCo_{1-x} Alloy nanoparticles-doped Carbon nanofibers as Effective Non Precious Catalyst for Ethanol Oxidation

Nasser Barakat*, Chonbuk National University, Republic of Korea

(ICE-P042-2014) Improved Reproducibility of the Morphologies and Photovoltaic Performances of P3HT Electrospun Nanofibers through Control Over the Evaporation Rate

Taehoon Kim*, Seung Jae Yang, Sae Jin Sung, Yern Seung Kim, Chong Rae Park, Seoul National University, Republic of Korea

(ICE-P043-2014) Cd-doped Co nanoparticles as effective and stable electrode for capacitive deionization technology

Jongwan Kim*, Hak-Yong Kim, Nasser Barakat, Mira Park, Chonbuk National University, Republic of Korea

(ICE-P044-2014) Study of the effect of silica and tin oxide nanoparticles on electrospun separator properties

Marco Zaccaria*, Giorgia Cannucciari, Davide Fabiani, Chiara Gualandi, Maria Letizia Focarete, University of Bologna, Italy

(ICE-P045-2014) Construction of an electrospinning device for fast nano-material synthesis

Katharina Freitag*, Tom Nilges, TUM, Germany

(ICE-P046-2014) Influence of nitrogen doping on the catalytic activity of Ni-incorporated carbon nanofibers for alkaline direct methanol fuel cells

Mohamed H El-Newehy*, Badr M Thamer, King Saud University, Saudi Arabia; Nasser A Barakat, Chonbuk National University, Republic of Korea; Mohammad A Abdelkareem, Minia University, Egypt; Salem S Al-Deyab, King Saud University, Saudi Arabia; Hak Y Kim, Chonbuk National University, Republic of Korea

(ICE-P047-2014) Waterproof-breathable PVDF membranes prepared in one-step by Electrospinning

David Esperón*, Yflow S.L., Spain; Eduardo Dueñas Ladrón de Guevara, Universidad de Málaga, Spain; Antonia Dominguez Huertas, Ignacio González Loscertales, Yflow S.L., Spain

(ICE-P048-2014) Electrically conductive nanostructured membranes for filtering application

Michele Modesti*, Marco Pasetto, Alessandra Lorenzetti, Carlo Boaretti, Martina Roso, Denis Hrelja, University of Padova, Italy

(ICE-P049-2014) Novel biobased polymeric electrospun nanofibers with high antibacterial efficacy

Chiara Gualandi*, Laura Paltrinieri, Maria Letizia Focarete, Micaela Vannini, Grazia Totaro, Laura Sisti, Annamaria Celli, Giuseppe Mazzola, Diana Di Gioia, University of Bologna, Italy

(ICE-P050-2014) Wet-electrospinning for producing multi-core fibers, with diameters ranging from submicron up to the tens of microns

David Esperón*, Yflow S.L., Spain; Ignacio González Loscertales, Universidad de Málaga, Spain

(ICE-P051-2014) Use of a modified McIntyre cannula needle as a low cost spinneret assembly for coaxial electrospinning

Anant Raheja*, Chandra T Sainathan, Natarajan T Srinivasan, Indian Institute of Technology Madras, India

(ICE-P052-2014) Nanoparticle dispersion in PEO polymeric solutions via plasma treatment for the production of electrospun lithium batteries separator

Vittorio Colombo, Alma Mater Studiorum-Università di Bologna, Italy; Davide Fabiani, Maria Letizia Focarete, Chiara Gualandi, Alma Mater Studiorum - Università di Bologna, Italy; Matteo Gherardi, Romolo Laurita, Alma Mater Studiorum-Università di Bologna, Italy; Marco Zaccaria*, Alma Mater Studiorum - Università di Bologna, Italy

(ICE-P053-2014) Atmospheric pressure plasma enhanced electrospinnability of poly (L-lactic acid) solutions

Vittorio Colombo, Alma Mater Studiorum-Università di Bologna, Italy; Davide Fabiani, Maria Letizia Focarete, Alma Mater Studiorum -

Università di Bologna, Italy; Matteo Gherardi, Alma Mater Studiorum- Università di Bologna, Italy; Chiara Gualandi, Alma Mater Studiorum - Università di Bologna, Italy; Romolo Laurita*, Alma Mater Studiorum- Università di Bologna, Italy; Marco Zaccaria, Alma Mater Studiorum - Università di Bologna, Italy

(ICE-P054-2014) Enlarging Pore Size for Improving Cell Infiltration in Electrospun Scaffolds by Positive Voltage and Negative Voltage Electrospinning

Qilong Zhao*, Oi-in So, Min Wang, The University of Hong Kong, Hong Kong

(ICE-P055-2014) Electrospinning Synthesis and Electrocatalytic Performance of Nickel oxide/Nitrogen doped Carbon Nanofibers Nanocomposite Based PVA for Fuel Cell Applications

Ahmed Elzatahry, Abdullah Al-Enizi*, KSU, Saudi Arabia

(ICE-P056-2014) Development of pulse electrospinning installation and getting micron length of polymer fibers

Yerkhan Aliyev*, Bazar Dabynov, Gaukhar Ustayeva, Dilyara Igimbayeva, Meruyert Nazhipkyzy, Zulkhair Mansurov, Institut of combustion problems, Kazakhstan

(ICE-P057-2014) Surface modification of electrospun poly (Acrylonitrile-co- Styrene) copolymer nanofibers towards developing a dye removal

Mohamed El-Aassar*, City of Scientific Research and Technology Applications, Egypt; Marwa El-Kady, Egypt-Japan University of Science and Technology, Egypt; Hassan Shokry, City of Scientific Research and Technology Applications, Egypt

(ICE-P058-2014) Multiwall carbon nanotubes (MWCNT) embedded in oriented Poly(vinylidene fluoride) (PVDF) nanofibers by electrospinning

Joao Paulo Ferreira Santos, Aline B Silva, Rosario E Bretas*, Universidade Federal de São Carlos, Brazil

(ICE-P059-2014) Electrospun core-sheath PEO/Eudragit S100 nanofibers for enhanced magnetic resonance imaging

Miao Jin*, Gareth Williams, University College London School of Pharmacy, United Kingdom; Annie Bligh, University of Westminster, United Kingdom; Deng Guang Yu, University of Shanghai for Science and Technology, China

(ICE-P060-2014) Piezoelectric Properties of Poly(lactic Acid) based Electrospun Nanofiber Webs

Kap Jin Kim*, Sol Ji Lee, Yu Jin Ahn, Arun Anand Prabu, Kyung Hee University, Republic of Korea

(ICE-P061-2014) Electrospun Poly(vinylidene fluoride) Nanowebs Coated with Silicone Rubber as Piezoelectric Sensors for Healthcare Monitoring

Yu Jin Ahn*, Arun Anand Prabu, Kap Jin Kim, Kyung Hee University, Republic of Korea

(ICE-P062-2014) Catalytic Oxidation of Low Concentration Gaseous Organic Pollutants over Electrospun Nanofibrous Catalysts

Karel Soukup*, Pavel Topka, Vladimir Hejtmanek, Olga Solcova, Institute of Chemical Process Fundamentals of the ASCR, Czech Republic

(ICE-P063-2014) The post-spinning stretching effect on the uniaxial orientation of PAN electrospun precursor web for carbon nanofiber

Je Sung Youm*, Kap Seung Yang, Chonnam National University, Republic of Korea

(ICE-P064-2014) Characteristics of PVDF-HFP based nanocomposite gel polymer electrolytes dispersed with MWCNTs for li-ion batteries

Rajni Sharma*, Anjan Sil, Subrata Ray, Indian Institute of Technology, India

(ICE-P065-2014) Fabrication and characterization of polyvinylpyrrolidone /Cu²⁺ nanofibers

Zhuolin Xia*, Selda Topcu, Perena Gouma, Stony Brook University, USA

(ICE-P066-2014) Polymers in conventional electrospinning and coaxial electrospinning

Ruiyao Cui*, Applied Science and Engineering, USA

(ICE-P067-2014) The Effects of Electrospinning Parameters on Nanofiber Diameter of a Polymeric Biocomposite for Biomedical Application

Sajede Khorshidi, Atefeh Solouk*, Amirkabir University of Technology (Tehran Polytechnic), Iran; Hamid Mirzadeh, Saeedeh Mazinani, Amirkabir University of Technology (Tehran Polytechnic), Iran

Wednesday, August 6, 2014

Plenary Session II

9:00 AM-10:00 AM

Room: Metropolitan III

9:00 AM

(ICE-052-2014) Functional polymer nanofibers: opportunities and challenges

Luana Persano*, Andrea Camposeo, National Research Council-CNR, Italy; Dario Pisignano, Università del Salento, Italy

9:45 AM

Break

Biomedical Applications of Electrospun Materials I

10:00 AM-12:00 PM

Room: Metropolitan III

Session Chair(s): Xiumei Mo, Jingwei Xie

10:00 AM

(ICE-053-2014) Applications of Electrospun Membranes (Invited Speaker)

Ilias Louis Kyratzis*, Yen B Kyratzis, CSIRO, Australia

10:30 AM

(ICE-054-2014) Electrospun Nanofibers at Work in Biomedical Research (Invited Speaker)

Younan Xia*, Georgia Institute of Technology, USA

11:00 AM

(ICE-055-2014) Cell-laden Nanofibrous Scaffolds Made by Concurrent Electrospinning and Cell Electrospinning

Qilong Zhao*, Min Wang, The University of Hong Kong, Hong Kong

11:20 AM

(ICE-056-2014) Electrospun Polymer Nanofiber Scaffolds for Tissue Engineering

Ricardo Vera-Graziano*, Universidad Nacional Autónoma de México (National Autonomous University of México), Mexico; Federico J. Sabina-Ciscar, Universidad Nacional Autónoma de México, Mexico; Alfredo Maciel-Cerda, Francisco Sánchez-Arévalo, Universidad Nacional Autónoma de México (National Autonomous University of México), Mexico; Raúl Montiel-Campos, Nikola Batina, Universidad Autónoma Metropolitana (Metropolitan Autonomous University), Mexico; José M. Cornejo-Bravo, Universidad Autónoma de Baja California (Autonomous University of Baja California), Mexico; Atlántida Raya-Rivera, Filiberto Rivera-Torres, Hospital Infantil de México Federico Gómez (Infant Hospital of Mexico Federico Gomez), Mexico; Edwin Y. Gómez Pachón, Alida Ospina-Orejarena, Universidad Nacional Autónoma de México (National Autonomous University of México), Mexico; Luis J. Villareal-Gómez, Universidad Autónoma de Baja California (Autonomous University of Baja California), Mexico; Selene Alcántara-Barrera, Centro de Investigación Aplicada en Tecnologías Competitivas (Applied Research Center on Competitive Technologies), Mexico; Lizeth Ávila-Gutiérrez, Aurora Navarro-Cerón, Rodolfo J. Romero Aragón, Anrdomeda AL Monrroy-Brera, Universidad Nacional Autónoma de México (National Autonomous University of México), Mexico

11:40 AM

(ICE-057-2014) A bioinspired nanofiber-hydrogel mimic of the cartilage extracellular matrix

Florian A Formica*, ETH Zürich, Switzerland; Katharina Maniura-Weber, Ana M Bühlmann, EMPA, Switzerland; Marcy Zenobi-Wong, ETH Zürich, Switzerland

Energy Storage and Harvesting with Electrospun or Sprayed Materials I

10:00 AM-12:00 PM

Room: Metropolitan II

Session Chair(s): Avinash Baji, You-Lo Hsieh

10:00 AM

(ICE-058-2014) Molecular Orientation, Degradation and Gelation in Environmentally Sustainable Polymers: Electrospun Nanofibers of Poly(hydroxybutyrates) and Their Copolymers (Invited Speaker)

John F Rabolt*, Liang Gong, Bruce Chase, University of Delaware, USA; Isao Noda, Meredian Bioplastics, USA

10:30 AM

(ICE-059-2014) Electrospinning of Multifunctional Hybrid Fibers (Invited Speaker)

Wolfgang Sigmund*, University of Florida, USA

11:00 AM

(ICE-060-2014) Mesoporous Metal-Doped Carbon Nanofibers as Cathode for Lithium-Air Batteries

Sandra Martinez Crespiera*, David Amantia, César Pelegrín, Etienne Knipping, Christophe Aucher, Mirko Faccini, Laurent Aubouy, LEITAT, Spain

11:20 AM

(ICE-061-2014) Electrospun Inorganic Nanofiber Networks for Lithium-Ion Batteries

Mehtap Bueyuekyazi*, Sanjay Mathur, University of Cologne, Germany

11:40 AM

(ICE-062-2014) Design of 3D Nanofiber Electrodes for Future Energy Devices

Wenjing Angela Zhang*, Vincenzo Esposito, Søren Søren Simonsen, Wei Zhang, Severine Ramousse, Jens Oluf Jensen, Technical University of Denmark,

Denmark; Peter N Pintauro, Vanderbilt University, USA

Filtration, Textiles and Other Topics I

10:00 AM-11:50 AM

Room: Metropolitan I

Session Chair(s): Jennifer Andrew, Gregory Rutledge

10:00 AM

(ICE-063-2014) Advanced Electrospinning of Nanofiber Nonwovens and Nanofiber Yarns (Invited Speaker)

Tong Lin*, Deakin University, Australia

10:30 AM

(ICE-064-2014) Imaging of Particulates within a Nanofibre Network

David J Nielsen*, Eva I Micich, Milan Jamriska, Damien Chong, Richard Hebden, Defence Science and Technology Organisation, Australia

10:50 AM

(ICE-065-2014) Polymeric Electrospun Nanofibrous Mats to Enhance the Mechanical Behavior of Composite Laminates

Juri Belcari, Oliviero Bocchi, Tommaso Brugo, Annamaria Celli, Maria Letizia Focarete, Chiara Gualandi, Alessio Mazzotta, Giangiacomo Minak, University of Bologna, Italy; Fabrizio Moroni, Roberto Palazzetti, Strathclyde University, United Kingdom; Luca Pesola, University of Bologna, Italy; Alessandro Pironi, Strathclyde University, United Kingdom; Hamed Saghafi, Laura Sisti, Andrea Zucchelli*, University of Bologna, Italy

11:10 AM

(ICE-066-2014) Nanostructured membranes as advanced solutions for VOCs control: the synergy of graphene and TiO₂ nanoparticles

Martina Roso*, Alessandra Lorenzetti, Carlo Boaretti, Denis Hrelja, Michele Modesti, University of Padova, Italy

11:30 AM

(ICE-067-2014) Polyethersulfone Electrospun Nanofibrous Membranes for water purification

Jiyeol Bae*, Hyuna Kim, Heechul Choi, Gwangju Institute of Science and Technology, Republic of Korea

Biomedical Applications of Electrospun Materials

II

1:30 PM-6:10 PM

Room: Metropolitan III

Session Chair(s): Luana Persano, Ilias Louis Kyratzis

1:30 PM

(ICE-068-2014) Electrospinning Nanoyarn Scaffold for Tissue Engineering (Invited Speaker)

Xiumei Mo*, Donghua University, China

2:00 PM

(ICE-069-2014) Microskin-seeded Electrospun Nanofiber Scaffolds for Skin Regeneration (Invited Speaker)

Jingwei Xie*, Jiang Jiang, Mark A Carlson, University of Nebraska Medical Center, USA

2:30 PM

(ICE-070-2014) Electrospinning of Three-Dimensional Nanofibers for Tissue Engineering

Karim Arroub*, Ashish Lepcha, Sanjay Mathur, University of Cologne, Germany

2:50 PM

(ICE-071-2014) PCLCol/PVAHA coaxial nanofiber coating on titanium implant osseointegration

Weiping Ren*, Wayne State University, USA; David Markel, Providence Hospital, USA

3:10 PM

(ICE-072-2014) Co-culture of neuron stem cells (NSCs) and astrocyte on poly-L-lactic acid microtube array membranes (MTAMs)

Chia-Hsuan Tseng, Jian-Jhih Ciou, Biomedical Materials and Tissue Engineering, Taiwan; Ko-Shao Chen, Tatung University, Taiwan; Yang-Kao Wang, Taipei Medical University, Taiwan; Szu-Yi Chou, Chien-Chung Chen*, Biomedical Materials and Tissue Engineering, Taiwan

3:30 PM

Break

3:50 PM

(ICE-073-2014) Blending Highly-ionized Synthetic Polypeptides with Elastin-like Polypeptides leads to Novel Fiber Formation by Electrospinning

Donald T Haynie, Dhan Khadka*, USF, USA

4:10 PM

(ICE-074-2014) Electrospinning of silk fibroin/poly(N-vinylcaprolactam) to form hybrid nanofibres

Namita Roy Choudhury*, Jasmin Whittaker, Naba Dutta, Ian Wark Research Institute, Australia

4:30 PM

(ICE-076-2014) Electrospun 5-fluorouracil loaded bovine serum albumin-polyvinylpyrrolidone nanofibers for anti-cancer therapeutics

Upulitha Eranka Illangakoon*, UCL, United Kingdom; Ahmad Haidery, Jameel Inal, Nicholas Chatterton, London Metropolitan University, United Kingdom; Gareth Williams, UCL, United Kingdom

4:50 PM

(ICE-078-2014) Role of Gellan-Based Electrospun Nanofibers in Wound Healing

Priya Vashisth*, Harmeet Singh, Parul A Pruthi, Rajesh P Singh, Vikas Pruthi, IIT Roorkee, India

5:10 PM

(ICE-079-2014) Hybrid electrospun scaffold for muscle bioengineering

Olivera Evrova*, ETH Zurich, Switzerland; Ria Tauscher, University Hospital Zürich, Switzerland; Gemma Palazzolo, ETH Zurich, Switzerland; Vincent Milleret, University Hospital Zürich, Switzerland;

Marcy Zenobi-Wong, ETH Zurich, Switzerland;
Tullio Sulser, Johanna Buschmann, Daniel Eberli,
University Hospital Zürich, Switzerland

Energy Storage and Harvesting with Electrospun or Sprayed Materials II

1:30 PM-5:50 PM

Room: Metropolitan II

Session Chair(s): John Rabolt, Alexander Yarin

1:30 PM

(ICE-080-2014) Electrospun Fibers for Functional and Electroactive Applications (Invited Speaker)

Avinash Baji*, Singapore University of Technology and Design, Singapore; Yiu-Wing Mai, University of Sydney, Australia; Seeram Ramakrishna, National University of Singapore, Singapore; V. Anand Ganesh, Singapore University of Technology and Design, Singapore

2:00 PM

(ICE-081-2014) Hierarchical Biopolymer Functional Hybrids (Invited Speaker)

You-Lo Hsieh*, University of California, Davis, USA

2:30 PM

(ICE-082-2014) High pressure sensitivity in piezoelectric devices based on nanofibers

Luana Persano*, National Research Council-CNR, Italy; Canan Dagdeviren, Frederick Seitz Materials Research Laboratory, and Beckman Institute for Advanced Science, University of Illinois, USA; Yewang Su, Yihui Zhang, Northwestern University, USA; Salvatore Girardo, National Research Council-CNR, Italy; Dario Pisignano, Università del Salento, Italy; Yonggang Huang, Northwestern University, USA; John A. Rogers, Frederick Seitz Materials Research Laboratory, and Beckman Institute for Advanced Science, University of Illinois, USA

2:50 PM

(ICE-083-2014) Fabrication and energy harvesting property of 1-D lead-free KNN nano materials

Yongyong Zhuang*, Fei Li, Xi'an Jiaotong University, China; Shujun Zhang, Materials Research Institute, Pennsylvania State University, USA; Xu Zhuo, Xi'an Jiaotong University, China

3:10 PM

(ICE-084-2014) The electrochemical performance of supercapacitor with the parameters of pore structure and electrical conductivity

Chang Hyo Kim, Chonnam National University, Republic of Korea; Bo-Hye Kim, Deagu University, Republic of Korea; Kap Seung Yang*, Chonnam National University, Republic of Korea

3:30 PM

Break

3:50 PM

(ICE-085-2014) Electrospun carbon fibers as promising electrodes for enzymatic biofuel cells

Adriana Both Engel, Aziz Cherifi, Mikhael Bechelany, Sophie Tingry, David Cornu*, ENSCM, France

4:10 PM

(ICE-086-2014) Electrospinning of Non-Polymeric Systems: Green and Polymer-free Electrospun Nanofibers from Cyclodextrins and Cyclodextrin Inclusion Complexes

Tamer Uyar*, Asli Celebioglu, Fatma Kayaci, Bilkent University, Turkey

4:30 PM

(ICE-087-2014) Electrospun Carbon Nanofibers from Kraft Lignin for EMI shielding Application

Yingjie Li*, Frank Ko, University of British Columbia, Canada

4:50 PM

(ICE-088-2014) Direct deposit of polyvinyl alcohol/silicon/graphene nanoribbon nanofiber for a facile production of high capacity lithium-ion battery anodes

Yong Seok Kim, Ghazal Shoorideh, Cornell Univ, USA; Zhong Li, Bharat Patel, Srinivasan Chakrapani, Sangho Lee, AZ Electronic Materials Corp, USA; Yong Lak Joo*, Cornell Univ, USA

5:10 PM

(ICE-089-2014) Atomic Layer Deposition Modified Electrospun Nanofibers for Energy Conversion

Ashish Lepcha*, Sanjay Mathur, University of Cologne, Germany

5:30 PM

(ICE-090-2014) Free-standing film electrode composed of nanostructured TiO₂/C nanofibers for lithium ion batteries

Yujing Sha*, Bote Zhao, Zongping Shao, Nanjing Tech University, China

Filtration, Textiles and Other Topics II

1:30 PM-5:50 PM

Room: Metropolitan I

Session Chair(s): Tong Lin, David Nielsen

1:30 PM

(ICE-091-2014) Separation of Oil-in-Water Emulsion Using Electrospun Mats

Looh Tchuin (Simon) Choong*, Yi-Min Lin, Gregory Rutledge, MIT, USA

1:50 PM

(ICE-092-2014) Superhydrophobic Nonwovens for Medical Textile Applications

Mehmet Dasdemir*, Hatice Ibili, University of Gaziantep, Turkey

2:10 PM

(ICE-093-2014) Electrospun Polysulfone (PS) Microtube Array Membranes (MTAMs) as Advanced Blood Filtration Substrates

Chao-Hsuan Chen, Taipei Medical University, Taiwan; Zong-Han Chu, National Taipei University of Technology, Taiwan; Chia-Hsuan Tseng, Taipei

Medical University, Taiwan; Mai-Szu Wu, Taipei Medical University Hospital, Taiwan; Chien-Chung Chen*, Taipei Medical University, Taiwan

2:30 PM

(ICE-094-2014) Efficient Nanofibrous Adsorbents for Removal of Toxic and Heavy Metal Ions from Water

Mirko Faccini*, David Amantia, Diego Morillo, Marc Sánchez, Laurent Aubouy, Leitat Technological Center, Spain

2:50 PM

(ICE-095-2014) Turning Nanofibre into Products

Iain Hosie*, Simon Feasey, Revolution Fibres Ltd, New Zealand

3:10 PM

(ICE-097-2014) Piezoelectric behaviour of Poly(vinylidene fluoride) electrospun mat

Juri Belcari, Annamaria Celli, Davide Fabiani, Maria Letizia Focarete, University of Bologna, Italy; Massimo Gazzano, ISOF - CNR, Italy; Chiara Gualandi, Gaetano Pasini, Laura Sisti, Marco Zaccaria, Andrea Zucchelli*, University of Bologna, Italy

3:30 PM

Break

3:50 PM

(ICE-098-2014) Spraybase®: Customizing electrospinning technology

Gillian Hendy*, Shane Finnegan, Michael Maguire, Profector Life Sciences, Ireland

4:10 PM

(ICE-099-2014) Nanovascularization of polymer matrix: generation of nanochannels and nanotubes by sacrificial electrospun fibres

Chiara Gualandi*, Juri Belcari, Maria Letizia Focarete, Andrea Zucchelli, University of Bologna, Italy

4:30 PM

(ICE-101-2014) Electrospun Chitosan

**Nanomembrane as a Novel Sorbent for
Sequestration of Toxic Metal Ions**

Nesrin Horzum*, Izmir Katip Celebi University,
Turkey; Ahmet E Eroglu, Izmir Institute of
Technology, Turkey; Talal Shahwan, Birzeit
University, Palestine, State of; Mustafa M. Demir,
Izmir Institute of Technology, Turkey

4:50 PM

**(ICE-102-2014) Fabrication of porous carbon
nanofibers by carbonization of electrospun
poly(vinyl alcohol) nanofibers**

Shinsuke Nagamine*, Takara Matsumoto, Masahiro
Ohshima, Kyoto University, Japan

Thursday, August 7, 2014

Plenary Session III

9:00 AM-10:00 AM

Room: Metropolitan III

9:00 AM

(ICE-103-2014) Advances in Functional Metal Oxide Nanofibers

Il-Doo Kim*, Korea Advanced Institute of Science and Technology, Republic of Korea

9:45 AM

Break

Biomedical Applications of Electrospun Materials III

10:00 AM-12:00 PM

Room: Metropolitan III

Session Chair(s): Florian Formica, Ricardo Vera-Graziano

10:00 AM

(ICE-104-2014) Fabrication and Characterization of β -TCP/ (PVA-PCL) Bilayer Nanocomposites -A Bone Tissue Regeneration Scaffold

Uma Maheshwari Subramanian, Samuel Vasanth Kumar*, Karunya University, India

10:20 AM

(ICE-105-2014) Electrospun Polycaprolactone-nano hydroxyapatite composite fibers for Bone defect applications

Pandurangan Harikrishnan*, Arumugam Sivasamy, CSIR-Central Leather Research Institute, India; Anant Raheja, Indian Institute of Technology Madras, India; Hairul Islam, Pondicherry Center for Biological Sciences, India; Srinivasan Natarajan, Indian Institute of Technology Madras, India

10:40 AM

(ICE-106-2014) Cell electrospinning

Suwan Jayasinghe*, University College London, United Kingdom

11:00 AM

(ICE-107-2014) Modulating Growth Factor Release through Negative Voltage Electrospinning for Emulsion Electrospun Scaffolds

Qilong Zhao*, Min Wang, The University of Hong Kong, Hong Kong

11:20 AM

(ICE-108-2014) The preparation and electrospinning of double layer vascular scaffold with core-shell fibers and its in vitro and in vivo evaluation

Lin Ye*, Xue Geng, Zengguo Feng, Beijing Institute of Technology, China

11:40 AM

(ICE-109-2014) Antimicrobial activity of carboxymethyl chitosan/ polyethylene oxide nanofibers embeded silver nanoparticles

Moustafa M G Fouda*, Mohamed R El-Aassar, Salem S Al-Deyab, King Saud University, Saudi Arabia

Advances in Electrospinning Theory and Modeling

10:00 AM-12:10 PM

Room: Metropolitan II

Session Chair(s): Cagri Tekemen, Jan Lagerwall

10:00 AM

(ICE-110-2014) Three-Dimensional Imaging and Reconstruction of Electrospun Fiber Materials (Invited Speaker)

Gregory Rutledge*, Looh Tchuin (Simon) Choong, Massachusetts Institute of Technology, USA; Peng Yi, Johns Hopkins University, USA

10:30 AM

(ICE-111-2014) Stability analysis of an axi-

symmetric liquid jet in the presence of an externally coflowing liquid

Venkat Gundabala*, Vikrant K Modi, Indian Institute of Technology Bombay, India

10:50 AM

(ICE-112-2014) Designing a New Nozzle System for Co-axial Electrospinning through Numerical Simulations

Seung-Yeol Jeon, Seoul National University, Republic of Korea; Byoung-Sun Lee, Samsung Advanced Institute of Technology (SAIT), Republic of Korea; Haedong Park, Woong-Ryeol Yu*, Seoul National University, Republic of Korea

11:10 AM

(ICE-113-2014) 3D modeling of melt electrospinning process

Junghyuk Ko*, Martin Jun, University of Victoria, Canada

11:30 AM

(ICE-114-2014) Comparison of Current Massive Electrospinning Technology in terms of Field Intensity, Cost and Productivity

Yanbo Liu*, Weiya Chen, Tianjin Polytechnic University, China; Zeru Zhang, 359th Factory of 6th Inner Mongolia Aerospace Science and Industry Corporation, China; Lingling Guo, Dongyue Qi, Jinbo Yao, Tianjin Polytechnic University, China

11:50 AM

(ICE-115-2014) Impact of chain entanglement on solution electrospinning

Yu Wang, Chi Wang*, National Cheng Kung University, Taiwan

10:00 AM

(ICE-116-2014) Macroscale Alignment of Gold Nanorods in Electrospun Polymer Fibers and Polarization-Controlled Photothermal Heating (Invited Speaker)

Joseph B. Tracy*, North Carolina State University, USA

10:30 AM

(ICE-117-2014) One-Dimensional Au/TiO₂ Composite Nanofibers Synthesis by Electrospinning and Applications

Xiaojiao YANG*, Vincent Salles, Mathieu Maillard, Arnaud Brioude, University of Claude Bernard Lyon 1, France

10:50 AM

(ICE-118-2014) Improving the microstructure and electrochemical performance of carbon nanofibers containing graphene-wrapped silicon nanoparticles as a Li-ion battery anode

Bo Hye Kim*, Daegu University, Republic of Korea; So Yeun Kim, Kap Seung Yang, Chonnam National University, Republic of Korea

11:10 AM

(ICE-119-2014) On the enhancement of light harvesting with hierarchical structures using electrospayed photoactive materials

Khadija Kanwal Khanum*, Praveen C Ramamurthy, Indian Institute of Science, India

11:30 AM

(ICE-121-2014) Polyvinylbutyral assisted synthesis and characterization of kesterite quaternary semiconductor Cu₂ZnSnSe₄ nanofibers by electrospinning route

Lin-Jer Chen*, Yu-Ju Chuang, National Cheng Kung University, Taiwan

Ceramic Composites and Energy III

10:00 AM-12:10 PM

Room: Metropolitan I

Session Chair(s): Simon King, Hao Fong