



POSTER PROGRAM

Wednesday, June 29, 2016

POSTER SESSION I (6:30 PM – 7:50 PM)

Photonic, electronic and other emerging applications of electrospun nanofibers (COST Session)

(1161) Lab scale electrospinning optimization as a step to successful mass production of nanofibers
K. Rubáčková, R. Křenek, M. Votrubec, Elmarco s.r.o., Czech Republic

(1169) Facile synthesis of patterned copper mesh embedded in flexible substrate as an application for transparent conducting electrode
Z. Luo, I.-D. Kim, Korea Advanced Institute of Science and Technology, Republic of Korea

(1198) The effect of polarity on biomimetic surface modification of PCL/chitosan nanofibers formed by electrospinning
O. Urbanek, P. Sajkiewicz, Institute of Fundamental Technological Research-Polish Academy of Sciences, Poland

(1205) Blend electrospinning of dye-functionalized chitosan and polycaprolactone: towards biocompatible PH-sensors
E. Schoolaert, R. Hoogenboom, K. De Clerck, University of Ghent, Belgium

(1245) Production of flexible strain sensor using PCL/MWCNTs electrospun fibers
F. Molinari, G. Escobar, M. Mass, National Institute of Industrial Technology, Argentina;
A. Lio, C. Delgado Simão, Eurecat-Cetemmsa, Spain;
L. Monsalve, National Institute of Industrial Technology and CONICET, Argentina

(1246) (CdSe)ZnS QDs decoration of nanofibrous titania to reveal toxic gas traces in the atmosphere
V. Perri, University of Calabria, Italy;
E. Zampetti, A. Bearzotti, CNR-IIA, Italy;
B. Richichi, C. Nativi, University of Florence, Italy;
N. Pirrone, A. Macagnano, CNR-IIA, Italy

(1273) Electrospun conducting polymeric composite nanofibers
E. Číková, A. Šišková, M. Mičušík, M. Omastová, Polymer Institute-Slovak Academy of Sciences, Slovakia

(1277) Nanofiber yarns prepared using air vortex electrospinning technique
M. Viirsalu, N. Savest, A. Krumme, Tallinn University of Technology, Estonia

(1318) Possibilities of evaluation of nanofibre diameter distribution by mathematical statistic
J. Malašauskienė, E. Kuchanauskaitė, R. Milašius, Kaunas University of Technology, Lithuania

(1321) Triplet harvesting in nanocomposites of lanthanide doped SnO₂ and light emitting conjugated polymers
B. M. Morais Faustino, P. Spearman, P. J. S. Foot, Kingston University London, UK



POSTER PROGRAM

(1408) Structural color of ZnO nanostructures with electrospun seed layer

G. H. Kim, Pohang University of Science and Technology, Republic of Korea;
T. An, Andong National University, Republic of Korea;
G. Lim, Pohang University of Science and Technology, Republic of Korea

(1414) New evidences of complex behavior in lasing electrospun nanofibers

V. Resta, CNR-NANO and Università del Salento, Italy;
A. Camposeo, M. Moffa, CNR-NANO, Italy;
M. Montinaro, Università del Salento, Italy;
D. Pisignano, CNR-NANO and Università del Salento, Italy

Porous media and filtration

(1118) Removal of nitrate and phosphate by nanofibers for drinking water security

W. Wang, J. He, F. Cui, Harbin Institute of Technology, China;
C. Wang, Jilin University, China

(1157) Doped and undoped nanofibers for water purification

D. Di Camillo, F. Ruggieri, A. A. D'Archivio, S. Santucci, University of L'Aquila, Italy;
M. A. Maggi, Hortus Novus, Italy;
R. Mercurio, L. Lozzi, University of L'Aquila, Italy

(1173) Brittle-flexible-brittle transition in nanocrystalline zirconia nanofibrous membranes

X. Mao, J. Yu, B. Ding, Donghua University, China

(1232) Formation of the polylactic acid fibers by melt electrospinning for filtration applications

E. Krugly, D. Buivydiene, L. Kliucininkas, D. Martuzevicius, Kaunas University of Technology, Lithuania

(1307) Functional electrospun membranes

G. Ognibene, A. Latteri, M. E. Fragalà, S. Mannino, G. Cicala, University of Catania, Italy

Energy and catalysis

(1165) Electrospun nanostructured-active filter media for gas-phase methanol abatement: the effect of co-catalysts and semiconductors coupling.

M. Roso, C. Boaretti, A. Lorenzetti, M. Modesti, University of Padova, Italy

(1180) In situ synthesis of flexible hierarchical titanium dioxide nanofibrous membranes with enhanced photocatalytic activity

J. Song, G. Sun, J. Yu, B. Ding, Donghua University, China

(1191) Fabrication of TiO₂ nanocatalysts for air purification

R. Sidoraviciute, E. Krugly, D. Martuzevicius, Kaunas University of Technology, Lithuania

(1192) Carbon nanofibres as a cathode material for metal-air batteries

H. Weinrich, R. Schierholz, H. Tempel, R.-A. Eichel, H. Kungl, Forschungszentrum Jülich GmbH, Institute of Energy and Climate Research - Fundamental Electrochemistry (IEK-9), Germany



POSTER PROGRAM

(1295) Electrospun nickel/nitrogen-doped carbon nanofibers as non-precious and effective anode for direct methanol fuel cells

M. H. El-Newehy, King Saud University, Saudi Arabia and Tanta University, Egypt;
B. M. Thamer, King Saud University, Saudi Arabia;
N. A. M. Barakat, Chonbuk National University, Republic of Korea and Minia University, Egypt;
M. A. Abdelkareem, Minia University, Egypt;
S. S. Al-Deyab, King Saud University, Saudi Arabia;
H. Y. Kim Chonbuk National University, Republic of Korea

(1315) Electrospun coral-like α -Fe₂O₃ nanostructures for photoelectrochemical water splitting

F. Pantò, P. Frontera, S. Santangelo, Università "Mediterranea" Reggio Calabria, Italy;
A. Naldoni, F. Malara, M. Marelli, V. Dal Santo, CNR-ISTM, Italy;
S. Patané, C. Triolo, Università di Messina, Italy;
P. Antonucci, Università "Mediterranea" Reggio Calabria, Italy

Biology and biotechnology

(1098) Electrospinning of polymer nanocomposite based on chitosan for acquiring textile surface self-cleaning and antibacterial activity performance

A. S. Montaser, F. Abd El-hamide, A. Nada, National Research Centre, Egypt;

(1133) Bilayered electrospun small-diameter vascular grafts with improved *in vitro* biological response

P. C. Caracciolo, Instituto de Investigaciones en Ciencia y Tecnología de Materiales (UNMdP-CONICET), Argentina;
I. Rial-Hermida, Universidad de Santiago de Compostela, Spain;
F. Montini-Ballarín, Instituto de Investigaciones en Ciencia y Tecnología de Materiales (UNMdP-CONICET), Argentina;
A. Concheiro, C. Álvarez-Lorenzo, Universidad de Santiago de Compostela, Spain;
G. A. Abraham, Instituto de Investigaciones en Ciencia y Tecnología de Materiales (UNMdP-CONICET), Argentina

(1146) Eumelanin 3D architectures by electrospun PLA fibers templating

I. Bonadies, C. Carfagna, F. Cimino, CNR-IPCB, Italy;
A. Pezzella, University of Naples "Federico II", Italy

(1193) Studies on collagen-doxycycline nanofibers prepared by coaxial electrospinning method III: effect of collagen concentration on nanofiber diameter

S. Tort, F. Acartürk, Gazi University, Turkey

(1201) Electrospun polyamide 6/silica nanocomposite scaffolds for tendon and ligament regeneration

C. Rinoldi, E. Kijeńska, W. Swieszkowski, Warsaw University of Technology, Poland.

(1202) Bicomponent PCL/biopolymer nanofibers electrospun from various solvents-cellular and biodegradation studies

J. Dulnik, P. Denis, P. Sajkiewicz, D. Kolbuk, Institute of Fundamental Technological Research-Polish Academy of Sciences, Poland

(1210) 3D-printed electrospinning collector for heart valve tissue engineering

A. L. Hoheisel, B. Glasmacher, Gottfried Wilhelm Leibniz Universität Hannover, Germany



POSTER PROGRAM

(1211) Electrospinning of sacrificial nanofibers for the creation of a self-healing nanovascular network and its effect on the properties of an epoxy matrix

A. Torre-Muruzabal, Vrije Universiteit Brussel, Belgium;
L. Daelemans, Ghent University, Belgium;
G. Van Assche, Vrije Universiteit Brussel, Belgium;
K. De Clerck, Ghent University, Belgium;
H. Rahier, Vrije Universiteit Brussel, Belgium

(1216) Growth of bacterial biofilm on electrospun polycaprolactone nanofibrous scaffold for agricultural uses

F. De Cesare, E. Di Mattia, University of Tuscia, Italy;
A. Macagnano, CNR-IIA, Italy

(1217) Bilayered nanofibrous/elastomeric membrane for cardiovascular engineering

O. Bjorgvinsdottir, L. Bernardi, K. Wuertz-Kozak, S. J. Ferguson, ETH Zurich, Switzerland;

(1234) Ultra light nanofiber based super absorbing materials for wound dressing applications

F. Deuber, Zurich University of Applied Sciences, Switzerland;
M. Rothmaier, IVF HARTMANN AG, Switzerland;
C. Adlhart, Zurich University of Applied Sciences, Switzerland

(1235) Hyaluronic acid-cyclodextrin crosslinked fibers for biomedical applications

M. Seon-Lutz, University of Strasbourg, CNRS and CEA-LETI France;
A. Hebraud, University of Strasbourg, CNRS, France;
A.-C. Couffin, S. Vignoud, CEA-LETI, France;
G. Schlatter, University of Strasbourg, CNRS, France



POSTER PROGRAM

Thursday, June 30, 2016

POSTER SESSION II (4:40 PM – 6:00 PM)

Biology and biotechnology

(1247) Neurotrophin loaded P(LLA-CL)/Collagen nanofibrous scaffolds for peripheral nerve tissue engineering

E. Kijeńska, T. Bolek, K. J. Kurzydłowski, W. Swieszkowski, Warsaw University of Technology, Poland

(1254) Comparison between electrospinning and solvent casting techniques in manufacturing bioabsorbable composite matrices for esophageal reconstruction

I. Genta, S. Pisani, R. Dorati, A. De Trizio, T. Modena, B. Conti, University of Pavia, Italy

(1257) Sustainable strategies for cross-linking electrospun gelatin

K. Siimon, K. Mõisavaal, P. Reemann, M. Järvekülg, University of Tartu, Estonia;

(1262) Biodegradable electrospun carriers for the release of luminescent nanoparticles

A. Merlettini, E. Rampazzo, F. Palomba, C. Gualandi, N. Zaccheroni, M. L. Focarete, University of Bologna, Italy

(1270) Crosslinking effect of TPP and arginine on chitosan electrospun mat for soft tissue regeneration

P. Nitti, F. Depascali, L. Natta, F. Scalerà, F. Gervaso, A. Sannino, University of Salento, Italy

(1282) Membranes of electrospun polymers for medical devices

T. Kowalczyk, O. Urbanek, Institute of Fundamental Technological Research-Polish Academy of Sciences, Poland;

E. Zabost, University of Warsaw, Poland;

B. Noszczyk, Medical Centre of Postgraduate Education, Poland;

T. Kloskowski, J. Adamowicz, A. Jundzill, M. Pokrywczynska, T. Drewa, Nicolaus Copernicus University in Torun and Ludwik Rydygier Medical College in Bydgoszcz, Poland

(1300) Development of adsorptive membrane by confinement of activated biochar into electrospun fibers

M. Taheran, S. K. Brar, INRS-ETE-Université du Québec, Canada;

E. Knystautas, Université Laval, Canada

(1305) Carboxymethyl cellulose based hydrogel nanofiber

S. M. Jo, S. J. Park, S. H. Lee, H.-I. Joh, Korea Institute of Science and Technology, Republic of Korea

(1309) Electrospun silk for medical treatment

A. Šišková, Z. Kroneková, A. Opálek, A. Andicsová Eckstein, Slovak Academy of Sciences, Slovakia

(1320) Assessment of effective transport properties of biocompatible nanofibrous mats

K. Soukup, V. Hejtmánek, O. Šolcová, Czech Academy of Sciences, Czech Republic



POSTER PROGRAM

(1404) Biomedical applications of keratin-based nanofibers in dental implants and bone regeneration

A. Varesano, C. Vineis, D. O. Sanchez Ramirez, R. A. Carletto, F. Truffa Giachet, CNR-ISMAC, Italy;
S. Spriano, S. Ferraris, Politecnico di Torino, Italy;
L. Rimondini, Università del Piemonte Orientale, Italy;
N. Bloise, L. Visai, Università di Pavia and S. Maugeri Foundation, Italy

(1405) Keratin-based nanofibers with antibacterial and photo-catalytic activities

C. Vineis, A. Varesano, C. Tonetti, D. O. Sánchez Ramírez, R. A. Carletto, CNR-ISMAC, Italy;
S. Ortelli, M. Blosi, A. L. Costa, CNR-ISTEC, Italy

Smart Nanofibers and Multifunctional Materials

(1179) Flexible hybrid aerogel membranes reinforced with silica nanofibers for thermal insulation

H. Shan, J. Yu, B. Ding, Donghua University, China

(1415) Smart patterns made of electrospun nanofibers on microstructures

M. Moffa, A. G. Sciancalepore, L. Persano, CNR-NANO, Italy;
A. Portone, L. Romano, D. Pisignano, CNR-NANO and Università del Salento, Italy

(1416) New species of nanocomposite nanofibers incorporating 2D-materials

A. Portone, L. Romano, CNR-NANO and Università del Salento, Italy;
V. Fasano, Università del Salento, Italy;
L. Persano, CNR-NANO, Italy;
D. Pisignano, CNR-NANO and Università del Salento, Italy

(1417) Light-emitting nanofibers embedding luminescent proteins

L. Romano, CNR-NANO and Università del Salento, Italy;
M. Moffa, L. Persano, A. Camposeo, CNR-NANO, Italy;
D. Pisignano, CNR-NANO and Università del Salento, Italy

Characterization of nanofibrous materials

(1108) Towards damage resistant composites using electrospun nanofibers: a multiscale analysis of the toughening mechanisms

S. van der Heijden, L. Daelemans, I. De Baere, Ghent University, Belgium;
H. Rahier, Vrije Universiteit Brussel, Belgium;
W. Van Paepegem, Ghent University, Belgium;
K. De Clerck, Ghent University, Belgium

(1131) Characterization of pore size and distribution of different electrospun nanofiber membranes with capillary flow porometry

L. Mittelstädt, CSIRO Manufacturing, Australia and Gottfried Wilhelm Leibniz Universität Hannover, Germany;
Y. B. Truong, CSIRO Manufacturing, Australia;
A. L. Hoheisel, B. Glasmacher, Gottfried Wilhelm Leibniz Universität Hannover, Germany;
I. L. Kyratzis, CSIRO Manufacturing, Australia



POSTER PROGRAM

(1249) Pore structure characterization of electrospun carbon fibers with vapor and water adsorption

H. Tempel, H. Weinrich, S. Merz, R. Schierholz, J. Granwehr, H. Kungl, L. G. J. de Haart, R.-A. Eichel, Forschungszentrum Jülich GmbH, Institute of Energy and Climate Research - Fundamental Electrochemistry (IEK-9), Germany

(1409) Light scattering by nanofibers mats as modeled in the transition matrix approach

M. A. Iati, CNR-IPCF, Italy;

R. Saija, Università di Messina, Italy;

A. Camposeo, L. Persano, CNR-NANO and Soft Materials and Technologies SRL, Italy;

D. Pisignano, Università del Salento and CNR-NANO, Italy;

B. Fazio, A. Irrera, P. G. Gucciardi, O. M. Maragò, CNR-IPCF, Italy

Processing, surface treatments and nanoparticle embedment

(1128) Fabrication of aligned electrospun fibers using a static concave collector

G. Papapaskeva, I. Savva, E. Evaggelou, University of Cyprus, Cyprus;

T. Leontiou, Frederick University, Cyprus;

T. Stylianopoulos, F. Mpekris, K. Stylianou, T. Krasia-Christoforou, University of Cyprus, Cyprus;

(1178) Identifying interacting electrospinning parameters that influence fibre morphology using a design of experiments approach

F. A. A. Ruitter, University of Nottingham, UK;

M. Mather, Keele University, UK;

C. Alexander, F. R. A. J. Rose, University of Nottingham, UK;

J. Segal, University of Nottingham, UK

(1218) Effect of cold plasma treatment on electrospun nanofibers

N. Arık, İzmir Katip Celebi University, Turkey;

A. İnan, İzmir Institute of Technology, Turkey;

F. İbis, E. A. Demirci, U. K. Ercan, O. Karaman, N. Horzum, İzmir Katip Celebi University, Turkey;

(1263) Defect free polyaniline fibers: dimer surface segregation and template polymerization method

R. Castagna, R. Momentè, Politecnico di Milano, Italy;

G. Pariani, Istituto Nazionale di Astrofisica, Italy;

B. Saglio, Politecnico di Milano and IIT, Italy;

G. Zerbi, Politecnico di Milano, Italy;

A. Bianco, Istituto Nazionale di Astrofisica, Italy;

C. Bertarelli, Istituto Nazionale di Astrofisica and IIT, Italy

(1302) Plasma pre and post-treatment of electrospun nanofibrous Li-ion battery separators

R. Laurita, M. Zaccaria, M. Gherardi, C. Arbizzani, F. Bufalini, D. Fabiani, A. Merlettini, Alma Mater Studiorum Università di Bologna, Italy;

A. Pollicino, Università di Catania, Italy;

M. L. Focarete, V. Colombo, Alma Mater Studiorum Università di Bologna, Italy

(1402) Novel chitosan electrospun nanofibres incorporating conductive polyaniline

P. Moutsatsou, K. Coopman, S. Georgiadou, Loughborough University, UK



POSTER PROGRAM

(1418) Improvement of morphological and optical properties in electrospun nanofibers produced in nitrogen atmosphere

V. Fasano, Università del Salento, Italy;

M. Moffa, A. Camposeo, L. Persano, CNR-NANO, Italy;

D. Pisignano, CNR-NANO and Università del Salento, Italy

(1419) On the dynamics of electrospun jets studied at sub-ms timescale: impact on nanofiber processing

M. Montinaro, V. Fasano, Università del Salento, Italy;

M. Moffa, A. Camposeo, L. Persano, CNR-NANO, Italy;

D. Pisignano, CNR-NANO and Università del Salento, Italy