

Mohan Edirisinghe: List of Journal Publications: As at March 2021

(This list is updated approximately every 6 months)

2021

Perspective: Covid-19; Emerging Strategies and Material Technologies

J.Ahmed, H.Alenezi, U.Edirisinghe and M.Edirisinghe

Emergent Materials, 4(2021)3-8.

[INVITED for Special Issue: Intelligent emergent materials to combat COVID-19 pandemic]

A Novel Reusable Anti-COVID-19 Transparent Face Respirator with Optimized Airflow

H.Alenezi, M.E.Cam and M.Edirisinghe

Bio-design and Manufacturing,4(2021)1-9.

Next-generation Antimicrobial Peptides (AMPs) Incorporated Nanofibre Wound Dressings

A.Afshar, E.Yuca, C.Wisdom, H.Alenezi, J.Ahmed, C.Tamerler and M.Edirisinghe, *Medical Devices & Sensors*, 4(2021)e10144.

Accelerated Diabetic Wound Healing by Topical Application of Combination Oral Antidiabetic Agents-loaded Nanofibrous Scaffolds: An In Vitro and In Vivo Evaluation Study

M.E.Cam, B.Ertas, H.Alenezi, A.N.Hazar-Yavuz, S.Cesur, G.S.Ozcan, C.Ekentok, E.Guler, C.Katsakouli, Z.Demirbas, D.Akakin, M.S.Eroglu, L.Kabasakal, O.Gunduz and M.Edirisinghe, *Mater. Sci. Eng. C*, 119(2021)111586.

Surface Interactions and Viability of Coronaviruses

M.O.Aydogdu, E.Altun, E.Chung, G.Ren, S.Homer-Vanniasinkam, B.Chen and

M.Edirisinghe, *J.Roy. Soc. Interface*,18(2021)20200798.

[HEADLINE REVIEW]

Wholly Biobased, Highly Stretchable, Hydrophobic, and Self-healing Thermoplastic Elastomer

Y.Nurhamiyah, A.Amir, M.Finnegan, E.Themistou, M.Edirisinghe and B.Chen

ACS Appl. Mater. & Interfaces,13(2021)6720-6730.

Porous Graphene Composite Polymer Fibres

J.Ahmed, T.A.Tabish, S.Zhang and M.Edirisinghe, *Polymers*,13(2021)76.

Composite nanoclay-hydroxyapatite-polymer fiber scaffolds for bone tissue engineering manufactured using pressurized gyration

K.Kundu, A.Afshar, D.R.Katti, M.Edirisinghe and K.S.Katti, *Composites Science and Technology*, 202(2021)108598.

2020

Current Methodologies and Approaches for the Formation of Core–sheath Polymer Fibers for Biomedical Applications

S.Mahalingam, R.Matharu, S.Homer-Vanniasinkam and M. Edirisinghe, *Appl. Phys. Rev.*, 7(2020)041302.

[INVITED FEATURED ARTICLE: Work news-reported in UPI on 14th October 2020 and many other news agencies]

Novel Antibiotic-loaded Particles Conferring Eradication of Deep Tissue Bacterial Reservoirs for the Treatment of Chronic Urinary Tract Infection
W.K.Lau, D.Dharmasena, H.Horsley, N.V.Jafari, J.Malone-Lee, E.Stride, M.Edirisinghe and J.L.Rohn, *J.Control. Release*, 328(2020)490-502.

Rapid and Label-free Detection of COVID-19 Using Coherent Anti-Stokes Raman Scattering Microscopy
T.A.Tabish, R.J.Narayan and M. Edirisinghe, *MRS Communications*, 10(2020)566-572.

A Novel Treatment Strategy for Preterm Birth: Intra-vaginal Progesterone-loaded Fibrous Patches
M.E.Cam, A.N.Hazar-Yavuz, S.Cesur, O.Ozkan, H.Alenezi, H.T.Sasmazel, M.S.Eroglu, F.Brako, J.Ahmed, L.Kabasakal, G.Ren, O.Gunduz and M. Edirisinghe,
Int. J. Pharmaceutics, 588(2020)119782.

Effectiveness of Oil-layered Albumin Microbubbles Produced using Microfluidic T-junctions in Series for *In Vitro* Inhibition of Tumor Cells
A.H.Khan, X.Jiang, S.Surwase, M.Gultekinoglu, C.Bayram, I.Sathisaran, Dhiraj Bhatia, J.Ahmed, B.Wu, K.Ulubayram, M. Edirisinghe and S.V.Dalvi, *Langmuir*, 36(2020)11429-11441.

Generation of Core–sheath Polymer Nanofibers by Pressurised Gyration
S.Mahalingam, S.Huo, S.Homer-Vanniasinkam and M.Edirisinghe,
Polymers, 12(2020)1709.

[Work featured on the cover of the journal and in Cover Paper Promotion Project, see https://twitter.com/Polymers_MDPI/status/1364119803384852480]

The Comparison of Glybenclamide and Metformin-loaded Bacterial Cellulose/gelatin Nanofibres Produced by a Portable Electrohydrodynamic Gun for Diabetic Wound Healing
M.E.Cam, M.Crabbe-Mann, H.Alenezi, A.N.Hazar-Yavuz, B.Ertas, C.Ekentok, G.S.Ozcan, F.Topal, E.Guler, Y.Yazir, M.Parhizkar and M.Edirisinghe, *Eur. Polym. J.*, 134(2020)109844.

Viral Filtration Using Carbon-Based Materials
R.K.Matharu, H.Porwal, B.Chen, L.Ciric and M.Edirisinghe, *Medical Devices & Sensors*, 3(2020)e10107.

Poly(Caprolactone)-Poly(N-Isopropyl Acrylamide)-Fe₃O₄ Magnetic Nanofibrous Structure with Stimuli Responsive Drug Release
S.Gholami, S.Labbaf, A.Kermanpur A.B.Houreh Chaojie Luo, M.Edirisinghe and H.N.Esfahani, *Macromolecular Mater. & Eng.*, 305(2020)2000208.

Comparative Study of the Antimicrobial Effects of Tungsten Nanoparticles and Tungsten Nanocomposite Fibres on Hospital Acquired Bacterial and Viral Pathogens
R.K.Matharu, L.Ciric, G.Ren and M.Edirisinghe, *Nanomaterials*, 10(2020)10061017.

Microstructure of Fibres Pressure-spun from Polyacrylonitrile–graphene oxide Composite Mixtures
A.Amir, H.Porwal, S.Mahalingam, X.Wu, T.Wu, B.Chen, T.A.Tabish and M.Edirisinghe, *Composites Science and Technology*, 197(2020)108214.

Bacterial Cellulose Micro-nano Fibres for Wound Healing Applications
J.Ahmed, M.Gultekinoglu and M.Edirisinghe, *Biotechnology Advances*, 41, July–August(2020)107549.

COVID-19: Facemasks, Healthcare Policies and Risk Factors in the Crucial Initial Months of a Global Pandemic
J. Ahmad, A.Harker and M.Edirisinghe, *Medical Devices & Sensors*, 3(2020)e10120.

A Portable Device for the Generation of Drug-Loaded Three-Compartmental Fibers Containing Metronidazole and Iodine for Topical Application
F.Brako, C.J.Luo, R.K.Matharu, L.Ciric, A.Harker, M.Edirisinghe and D.Q.M. Craig, *Pharmaceutics*, 12(2020)373.

Microstructure and Antibacterial Efficacy of Graphene Oxide Nanocomposite Fibres
R.K.Matharu, T.A.Tabish, T.Trakoolwilaiwan, J.Mansfield, J.Moger, T.Wu, C.Lourenço, B.Chen, L.Ciric, I.P.Parkin and M.Edirisinghe
Journal of Colloid and Interface Science, 571(2020)239-252.

Self-assembled Micro-stripe Patterning of Sessile Polymeric Nanofluid Droplets
M.Gultekinoglu, X.Jiang, C.Bayram, H.Wu, K.Ulubayram and M.Edirisinghe
Journal of Colloid and Interface Science, 561(2020)470-480.

Evaluation of Burst Release and Sustained Release of Pioglitazone-loaded Fibrous Mats on Diabetic Wound Healing: an *In vitro* and *In vivo* Comparison Study
M.E.Cam, S.Yildiz, H.Alenezi, S.Cesur, G.S.Ozcan, G.Erdemir, U.Edirisinghe, D.Akakin, D.S.Kuruca, L.Kabasakal, O.Gunduz and M.Edirisinghe
J. Royal Soc. Interface, 17(2020)20190712.

Enhanced Efficacy in Drug-resistant Cancer Cells through Synergistic Nanoparticle Mediated Delivery of Cisplatin and Decitabine
M.Parhizkar, P.J.T.Reardon, A.H.Harker, R.J.Browning, E.Stride, R.B.Pedley, J.C.Knowles and M.Edirisinghe, *Nanoscale Advances* 2(2020)1177-1186.

Copolymer Composition and Nanoparticle Configuration Enhance *in vitro* Drug Release Behavior of Poorly Water-soluble Progesterone for Oral Formulations
Y.Zhang, R.Zhang, U.E.Illangakoon, A.H.Harker, C.Thrasivoulou, M.Parhizkar, M.Edirisinghe and C.J.Luo
Int. J. Nanomedicine, 15(2020) 5389–5403.

Videographic Analysis of Blink Dynamics following Upper Eyelid Blepharoplasty and Its Association with Dry Eye
F.H.W.Mak, M.Ting, M.R.Edmunds, A.Harker, M.Edirisinghe, S.Duggineni, F.Murta and D.G.Ezra, *Plastic and Reconstructive Surgery Global Open*, 8(2020) e2991.

2019

Biofabrication of Gelatin Tissue Scaffolds with Uniform Pore Size via Microbubble Assembly
C.Bayram, X.Jiang, M.Gultekinoglu, S.Ozturk, K.Ulubayram and M.Edirisinghe, *Macromolecular Mater. & Eng.*, 34(2019)1900394.

[Work featured on the cover of the journal]

Experimental and Theoretical Investigation of the Fluid Behavior During Polymeric Fiber Formation with and without Pressure

H.Alenezi, M.E.Cam and M.Edirisinghe, *Applied Physics Reviews*, 6(2019)041401.

[INVITED FEATURED ARTICLE: Work news-reported in EurekaAlert 15th October 2019 and many other news agencies]

Preparation of Poly (glycerol sebacate) Fibers for Tissue Engineering Applications

M.Gultekinoglu, Ş.Öztürk, B.Chen, M.Edirisinghe and K.Ulubayram, *Euro.Polym.J.*, 121(2019)109297.

Fiber Forming Capability of Binary and Ternary Compositions in the Polymer System: Bacterial Cellulose–Polycaprolactone–Polylactic Acid

M.O.Aydogdu, E.Altun, J.Ahmed, O.Gunduz and M.Edirisinghe, *Polymers*, 11(2019)1148.

Empirical Modelling and Optimization of Pressure-coupled Infusion Gyration Parameters for the Nanofibre Fabrication

X.Hong, A.Harker and M.Edirisinghe, *Proceedings of the Royal Society*, A475(2019)20190008.

[Work featured on the cover of the journal]

Novel Pressurised Gyration Device for Making Core-Sheath Polymer Fibres

S.Mahalingam, S.Homer-Vanniasinkam and M.Edirisinghe, *Materials & Design*, 178(2019)107846.

Bioinspired Scaffold Induced Regeneration of Neural Tissue

E.Altun, M.O.Aydogdu, S.O.Togay, A.Z.Sengil, N.Ekren, M.E.Haskoylu, E.T.Oner, N.A.Altuncu, G.Ozturk, M.Crabbe-Mann, J.Ahmed, O.Gunduz and M.Edirisinghe, *Euro.Polym.J.*, 114(2019)98-108.

PEEK Surface Modification by Fast Ambient-temperature Sulfonation for Bone Implant Applications

W.Wang, C.J.Luo, J.Huang and M.Edirisinghe, *J.Roy. Soc. Interface*, 16(2019)20180955.

Electrosprayed Microparticles: A Novel Drug Delivery Method

M.E.Cam, Y.Zhang and M.Edirisinghe, *Expert Opinion on Drug Del.*, 16(2019) 895-901.

[INVITED EDITORIAL]

Microbubbles: Exploring Gas-liquid Interfaces for Biomedical Applications

M.Edirisinghe and S.Dalvi, *Langmuir*, 35(2019) 9995-9996.

[INVITED SPECIAL ISSUE on Microbubbles a New Medical Frontier, EDITORIAL, Work featured on the cover of the journal]

The Influence of Drug Solubility and Sampling Frequency on Metformin and Glibenclamide Release from Double-layered Particles: Experimental Analysis and Mathematical Modelling

T.Shams, F.Brako, S.Huo, A.H.Harker, U.Edirisinghe and M.Edirisinghe, *J.Roy. Soc. Interface*, 16(2019)20180237.

Electrospinning Optimization of Eudragit E PO with and without Chlorpheniramine Maleate Using a Design of Experiment Approach

H.E.Abdelhakim, A.Coupe, C.Tuleu, M.Edirisinghe and D.Q.M.Craig, *Molecular Pharmaceutics*, 16(2019)2257-2568.

Boron Nitride Nanoscrolls: Structure, Synthesis, and Applications
M.S.Qayyum, H.Hayat, R.K.Matharu, T.A.Tabish and M.Edirisinghe, *Applied Physics Reviews*, 6(2019)021310.

[INVITED FEATURED REVIEW]

Anti-fungal Bandages Containing Cinnamon Extract
J.Ahmed, E.Altun, M.O.Aydogdu, O.Gunduz, L.Kerai, G.Ren and M.Edirisinghe, *Int. Wound J.*, 16(2019)730-736.

Effect of the Mixing Region Geometry and Collector Distance on Microbubble Formation in a Microfluidic Device Coupled with ac–dc Electric Fields
A.Kothandaraman, Y.Alfadhl, M.Qureshi, M.Edirisinghe and Y.Ventikos, *Langmuir*, 35(2019)10052-10060.

General Computational Methodology for Modeling Electrohydrodynamic Flows: Prediction and Optimization Capability for the Generation of Bubbles and Fibers
B.Aramide, A.Kothandaraman, M.Edirisinghe, S.N.Jayasinghe and Y.Ventikos, *Langmuir*, 35(2019) 10203-10212.

Generating Antibacterial Microporous Structures Using Microfluidic Processing
C.Katsakouli, X.Jiang, W.K.Lau, J.L.Rohn and M.Edirisinghe, *ACS Omega*, 4(2019)2225-2233.

Co-Culture of Keratinocyte-Staphylococcus aureus on Cu-Ag-Zn/CuO and Cu-Ag-W Nanoparticle Loaded Bacterial Cellulose:PMMA Bandages
E Altun, MO Aydogdu, M Crabbe-Mann, J Ahmed, F Brako, B Karademir, B.Aksu, M.Sennaroglu, M.S.Eroglu, G.Ren, O.Gunduz and M.Edirisinghe, *Macromolecular Mater. & Eng.*, 304(2019)1800537.

2018

Fiber Formation from Silk Fibroin Using Pressurized Gyration
PL Heseltine, J Hosken, C Agboh, D Farrar, S Homer-Vanniasinkam and M.Edirisinghe, *Macromolecular Mater. & Eng.*, 303(2018)1800577.

Effect of Copolymer Composition on Particle Morphology and Release Behavior in vitro Using Progesterone
Y.Zhang, T.Shams, A.H.Harker, M.Parhizkar and M.Edirisinghe, *Materials & Design*,59(2018)57-67.

Novel Preparation of Monodisperse Microbubbles by Integrating Oscillating Electric Fields with Microfluidics
A.Kothandaraman, A.Harker, Y.Ventikos and M.Edirisinghe, *Micromachines*, 9(2018)497.

**Invited Feature: Developments in Pressurized Gyration for the Mass Production of Polymeric Fibers*

P.L.Heseltine, J.Ahmed and M.Edirisinghe, *Macromolecular Mater. & Eng.*,303(2018)1800218.

[INVITED FEATURE ARTICLE: Work featured on the cover of the journal & reported in Advanced Science News July 23 2018, & SELECTED AS BEST OF MACROS 2019]

Electrosprayed Microparticles for Intestinal Delivery of Prednisolone

T.Shams, U.E.Illangakoon, M.Parhizkar, A.H.Harker, S.Edirisinghe, M.Orlu and M.Edirisinghe, *J.Roy. Soc. Interface*,15(2018)20180491.

Antimicrobial Activity of Tellurium-loaded Polymeric Fiber Meshes

R.K.Matharu, Z.Charani, L. Ciric, U.E.Illangakoon and M.Edirisinghe, *J.Applied Polym.Sci.*, 135(2018)46368.

[Work featured on the cover of the journal]

The Biomedical Applications of Graphene

M.Edirisinghe, *Interface Focus*, 8(2018)20180006.

[INVITED SPECIAL ISSUE EDITORIAL]

**Invited: The Effect of Graphene–Poly (methyl methacrylate) Fibres on Microbial Growth*

R.K.Matharu, H.Porwal, L.Ciric and M.Edirisinghe, *Interface Focus*,8(2018)20170058.

[Work featured on the cover of the journal]

Cellular Interactions with Bacterial Cellulose: Polycaprolactone Nanofibrous Scaffolds Produced by a Portable Electrohydrodynamic Gun for Point-of-Need Wound Dressing

M.O.Aydogdu, E.Altun, M.Crabbe-Mann, F.Brako, F.Koc, G.Ozen, S.E.Kuruca, U.Edirisinghe, C.J.Luo, O.Gunduz and M.Edirisinghe,

Int. Wound J., 15(2018)787-797.

Process Modeling for the Fiber Diameter of Polymer, Spun by Pressure-Coupled Infusion Gyration

X.Hong, A.Harker and M.Edirisinghe, *ACS Omega*, 3(2018)5470-5479.

Invited Topical Review: Nanocomposites: Suitable Alternatives as Antimicrobial Agents

R.K.Matharu, L.Ciric and M.Edirisinghe, *Nanotechnology*,29(2018)282001.

**Honeycomb-like PLGA-b-PEG Structure Creation with T-junction Micro Droplets*

M.Gultekinoglu, X.Jiang, C.Bayram, K.Ulubayram and M.Edirisinghe, *Langmuir*, 34(2018) 7989–7997.

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An Inexpensive, Portable Device for Point-of-Need Generation of Silver-Nanoparticle Doped Cellulose Acetate Nanofibers for Advanced Wound Dressing

F.Brako, C.Luo, D.Q.M. Craig and M.Edirisinghe, *Macromolecular Mater. & Eng.*, 303(2018)1700586.

A Comparison of Electric-Field-Driven and Pressure-Driven Fiber Generation Methods for Drug Delivery

J.Ahmed, R.K.Matharu, T.Shams, U.E.Illangakoon and M.Edirisinghe, *Macromolecular Mater. & Eng.*, 303(2018)1700577.

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Polymer–Magnetic Composite Fibers for Remote-Controlled Drug Release
A.S.Perera, S.Zhang, S.Homer-Vanniasinkam, M.O.Coppens and M.Edirisinghe, *ACS Appl. Mater. & Interfaces*, 10(2018)15524-15531.

The Development of Progesterone-loaded Nanofibers Using Pressurized Gyration: A Novel Approach to Vaginal Delivery for the Prevention of Pre-term Birth
F.Brako, B.T.Raimi-Abraham, S.Mahalingam, D.Q.M.Craig and M.Edirisinghe, *Int. J.Pharmaceutics*,540(2018)31-39.

Alginate Foam-based Three-dimensional Culture to Investigate Drug Sensitivity in Primary Leukaemia Cells
M.Karimpoor, E.Yebra-Fernandez, M.Parhizkar, M.Orlu, D.Craig, J.S.Khorashad and M.Edirisinghe, *J.Roy. Soc. Interface*,15(2018)20170928.

*Mucoadhesion of Progesterone-Loaded Drug Delivery Nanofiber Constructs
F.Brako, R.Thorogate, S.Mahalingam, B.Raimi-Abraham, D.Q.M. Craig and M.Edirisinghe, *ACS Appl. Mater. & Interfaces*,10(2018)13381-13389.

Ethyl Cellulose, Cellulose Acetate and Carboxymethyl Cellulose Microstructures Prepared Using Electrohydrodynamics and Green Solvents
M.Crabbe-Mann, D.Tsaoulidis, M.Parhizkar and M.Edirisinghe, *Cellulose*, 25(2018)1687-1703.

Novel Making of Bacterial Cellulose Blended Polymeric Fiber Bandages
E.Altun, MO Aydogdu, F Koc, M Crabbe-Mann, F Brako, R Kaur-Matharu, G.Ozen, S.E.Kuruca, U.Edirisinghe, O.Gunduz and M.Edirisinghe, *Macromolecular Mater. & Eng.*,303(2018)1700607.

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A Comparison of Methods to Assess the Antimicrobial Activity of Nanoparticle Combinations on Bacterial Cells
C.Bankier, Y.Cheong, S.Mahalingam, M.Edirisinghe, G.Ren, E.Cloutman-Green and L.Ciric, *PLoS One*,13(2018), Article e0192093.

Latest Developments in Innovative Manufacturing to Combine Nanotechnology with Healthcare
M.Parhizkar, S.Mahalingam, S.Homer-Vanniasinkam and M.Edirisinghe, *Nanomedicine*, 13(2018)5-8.

[INVITED EDITORIAL]

Poly(3-hydroxyoctanoate), a Promising New Material for Cardiac Tissue Engineering
A.V.Bagdadi, M.Safari, P.Dubey, P.Basnett, P.Sofokleous, E.Humphrey, I.Locke, M.Edirisinghe, C.Terracciano, A.R.Boccaccini, J.C.Knowles, S.E.Harding and I.Roy, *J.Tissue Engineering & Regenerative Medicine*, 12(2018)e495-e512.

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Development of Artificial Bone Marrow Fibre Scaffolds to Study Resistance to Anti-leukaemia Agents

M.Karimpoor, E.Illangakoon, A.G.Reid, S.Claudiani, M.Edirisinghe and J.S.Khorashad, *Br.J.Haemo.*, 182(2017)924-927.

Development of Foam-Based 3-Dimensional Culture to Investigate Drug Sensitivity in Primary Leukaemia Cells

M.Karimpoor, E.Yebra-Fernandez, M.Parhizkar, M.Orlu, D.Craig M.Edirisinghe and J.S.Khorashad, *Blood*, 130(2017)3824.

Electrohydrodynamic Fabrication of Core-shell PLGA Nanoparticles with Controlled Release of Cisplatin for Enhanced Cancer Treatment

P.J.T.Reardon, M.Parhizkar, A.H.Harker, R.J. Browning, V.Vassileva, E.Stride, R.B.Pedley, M.Edirisinghe and J.C.Knowles, *Int.J.Nanomed.*, 12(2017)3913-3926.

Core/shell Microencapsulation of Indomethacin/paracetamol by Co-axial Electrohydrodynamic Atomization

T.Shams, M.Parhizkar, U.E.Illangakoon, M.Orlu and M.Edirisinghe, *Materials & Design*, 136(2017)204-213.

Evolution of Self-generating Porous Microstructures in Polyacrylonitrile cellulose acetate Blend Fibres

S.Mahalingam, X.Wu and M.Edirisinghe, *Materials & Design*, 136(2017)259-271.

Evolution of Surface Nanopores in Pressurised Gyrospun Polymeric Microfibers

U.E.Illangakoon, S.Mahalingam, R.K.Matharu and M.Edirisinghe, *Polymers*, 9(2017)508 (11 pages).

Drug Delivery Strategies for Platinum-Based Chemotherapy

R.J.Browning, P.J.T. Reardon, M.Parhizkar, R.B.Pedley, M.Edirisinghe, J.C.Knowles and E.Stride, *ACS Nano*, 11(2017)8560-8578.

Characterisation of the Chemical Composition and Structural Features of Novel Antimicrobial Nanoparticles

Y.K.Cheong, J.Calvo-Castro, L.Ciric, M.Edirisinghe, E.Cloutman-Green, U.E.Illangakoon, Q.Kang, S.Mahalingam, R.K.Matharu, R.M.Wilson and G.Ren, *Nanomaterials*, 7(2017)152 (16 pages).

Highly Stretchable and Highly Resilient Polymer-clay Nanocomposite Hydrogels with Low Hysteresis

X.Su, S.Mahalingam, M.Edirisinghe and B.Chen, *ACS Appl. Mater. & Interf.*, 9(2017) 22223–22234.

The Generation of Compartmentalized Nanoparticles Containing SiRNA and Cisplatin using a Multi-Needle Electrohydrodynamic Strategy

F.Pina, K.W.Lau, K.Scherer, M.Parhizkar, M.Edirisinghe and D.Craig, *Nanoscale*, 9(2017)5975-5985

Simultaneous Application of Pressure-Infusion-Gyration to Generate Polymeric Nanofibers

X.Hong, S.Mahalingam and M.Edirisinghe, *Macromolecular Mater. & Eng.*, 302(2017)1600564.

[Work featured on the cover of the journal & SELECTED AS BEST OF MACROS 2018]

Performance of Novel High Throughput Multi Electropray Systems for Forming of Polymeric Micro/nanoparticles

M.Parhizkar, P.J.T.Reardon, J.C.Knowles, R.J.Browning, E.Stride, R.B.Pedley, T.Grego and M.Edirisinghe, *Materials & Design*, 126(2017)73-84.

New Generation of Tunable Bioactive Shape Memory Mats Integrated with Genetically Engineered Proteins

X.Wu, S.Mahalingam, S.VanOosten, C.Wisdom, C.Tamerler and M.Edirisinghe, *Macromol. Biosci.*, 17(2017)1600270.

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Gyrospon Antimicrobial Nanoparticle Loaded Fibrous Polymeric Filters

U.E.Illangakoon, S.Mahalingam, K.Wang, Y-K Cheong, E.Canales, G.G.Ren, E.Cloutman-Green, M.Edirisinghe and L.Ciric, *Mater. Sci. Eng. C*, 74(2017)315-324.

The Mechanics of Brow-suspension Ptosis Repair: A Comparative Study of Fox Pentagon and Crawford Triangle Techniques

K.-a. Kwon, R.J.Shipley, M.Edirisinghe, S.M.Best, R.E.Cameron, C.Poitelea, G.E.Rose and D.G.Ezra, *Ophthalmic Plastic & Reconstructive Surgery*, 33(2017)22-26.

Preparation of Nano-and Microstructures For Drug Delivery

Z.Ahmad and M.Edirisinghe, *AAPS Pharm.Sci.Tech.*, 18(2017)1427.

[INVITED EDITORIAL]

2016

Invited Topical Review: Application of Nanotechnology for the Development of Microbicides

F.Brako, B.T.Raimi-Abraham, S.Mahalingam, D.Q.M.Craig and M.Edirisinghe, *Nanotechnology*, 28(2016) 052001.

Porous Polymeric Films from Microbubbles Generated Using a T-Junction Microfluidic Device

M.Elsayed, A.Kothandaraman, M.Edirisinghe and J.Huang, *Langmuir* 32(2016)3377-13385.

Manufacturing Man-Made Magnetosomes: High-Throughput In Situ Synthesis of Biomimetic Magnetite Loaded Nanovesicles

P.K.Bakhshi, J.Bain, M.Orlu-Gul, E.Stride, M.Edirisinghe and S.S.Staniland, *Macromol. Biosci.*, 16(2016)1555-1561.

[Work featured on the cover of the journal]

Tailoring the Surface of Polymeric Nanofibres Generated by Pressurised Gyration

U.E.Illangakoon, S.Mahalingam, P.Colombo and M.Edirisinghe, *Surf. Innov.*,4(2016)167-178.

Electrosprayed Nanoparticle Delivery System for Controlled Release

M.Eltayeb, E.Stride, M.Edirisinghe and A.Harker, *Mater. Sci. Eng. C*, 66(2016)138-146.

The Effect of Needle Tip Displacement in Co-axial Electrohydrodynamic Processing

P.Sofokleous, W.K.Lau, M.Edirisinghe and E.Stride, *RSC Advances*, 6(2016)75258-75268.

Combining Microfluidic Devices with Coarse Capillaries to Reduce the Size of Monodisperse Microbubbles
X.Jiang, Y.Zhang, M.Edirisinghe and M.Parhizkar, *RSC Advances* 6(2016)63568-63577.

Novel Preparation, Microstructure, and Properties of Polyacrylonitrile-based Carbon Nanofiber–graphene Nanoplatelet Materials
X.Wu, S.Mahalingam, A.Amir, H.Porwal, M.J.Reece, V.Naglieri, P.Colombo and M.Edirisinghe, *ACS Omega*, 1(2016)202-211.

Beads, Beaded-fibres and Fibres: Tailoring the Morphology of Poly(ϵ -caprolactone) using Pressurised Gyration
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