Suwan N Jayasinghe

List of Publications by Citations

127 papers	4,065 citations	36 h-index	57 g-index
142 ext. papers	4,294 ext. citations	5.4 avg, IF	5.78 L-index

#	Paper	IF	Citations
127	Cell electrospinning: a unique biotechnique for encapsulating living organisms for generating active biological microthreads/scaffolds. *Biomacromolecules*, **2006**, 7, 3364-9	6.9	398
126	Electrohydrodynamic jet processing: an advanced electric-field-driven jetting phenomenon for processing living cells. *Small*, **2006**, 2, 216-9	11	222
125	Cell electrospinning: a novel tool for functionalising fibres, scaffolds and membranes with living cells and other advanced materials for regenerative biology and medicine. *Analyst, The*, **2013**, 138, 2215-23	5	159
124	In vitro assessment of the biological response to nano-sized hydroxyapatite. *Journal of Materials Science: Materials in Medicine*, **2004**, 15, 441-5	4.5	153
123	Cell electrospinning highly concentrated cellular suspensions containing primary living organisms into cell-bearing threads and scaffolds. *Nanomedicine*, **2007**, 2, 555-67	5.6	114
122	Effect of viscosity on the size of relics produced by electrostatic atomization. *Journal of Aerosol Science*, **2002**, 33, 1379-1388	4.3	101
121	Stable electric-field driven cone-jetting of concentrated biosuspensions. *Lab on A Chip*, **2006**, 6, 1086-90	7.2	88
120	The role of surface wettability and surface charge of electrosprayed nanoapatites on the behaviour of osteoblasts. *Acta Biomaterialia*, **2010**, 6, 750-5	10.8	75
119	Controlled Generation of Microspheres Incorporating Extracellular Matrix Fibrils for Three-Dimensional Cell Culture. *Advanced Functional Materials*, **2014**, 24, 2648-2657	15.6	74
118	The Extracellular Matrix Regulates Granuloma Necrosis in Tuberculosis. *Journal of Infectious Diseases*, **2015**, 212, 463-73	7	74
117	Electric field driven jetting: an emerging approach for processing living cells. *Biotechnology Journal*, **2006**, 1, 86-94	5.6	70
116	Cell electrospinning: an in vitro and in vivo study. *Small*, **2014**, 10, 78-82	11	68
115	A novel ceramic printing technique based on electrostatic atomization of a suspension. *Materials Research Innovations*, **2002**, 6, 92-95	1.9	65
114	The role of electrosprayed apatite nanocrystals in guiding osteoblast behaviour. *Biomaterials*, **2008**, 29, 1833-43	15.6	64
113	Electrohydrodynamic jetting of mouse neuronal cells. *Biochemical Journal*, **2006**, 394, 375-8	3.8	58
112	Controlled deposition of nanoparticle clusters by electrohydrodynamic atomization. *Nanotechnology*, **2004**, 15, 1519-1523	3.4	56
111	Novel deposition of nano-sized silicon substituted hydroxyapatite by electrostatic spraying. *Journal of Materials Science: Materials in Medicine*, **2005**, 16, 1137-42	4.5	55

110	Electrostatic atomisation of a ceramic suspension. *Journal of the European Ceramic Society*, **2004**, 24, 2203-2213	6	52
109	Instrument for electrohydrodynamic print-patterning three-dimensional complex structures. *Review of Scientific Instruments*, **2005**, 76, 075105	1.7	48
108	Bio-electrosprays: from bio-analytics to a generic tool for the health sciences. *Analyst, The*, **2011**, 136, 878-90	5	45
107	Bio-electrospraying embryonic stem cells: interrogating cellular viability and pluripotency. *Integrative Biology (United Kingdom)*, **2009**, 1, 260-6	3.7	45
106	Self-assembled nanostructures via electrospraying. *Physica E: Low-Dimensional Systems and Nanostructures*, **2006**, 33, 398-406	3	45
105	Electrohydrodynamic atomization of protein (bovine serum albumin). *Journal of Materials Science: Materials in Medicine*, **2005**, 16, 919-25	4.5	44
104	Cell electrospinning cardiac patches for tissue engineering the heart. *Analyst, The*, **2014**, 139, 4449-52	5	43
103	A Novel Method of Forming Open Cell Ceramic Foam. *Journal of Porous Materials*, **2002**, 9, 265-273	2.4	43
102	Bio-electrospraying and droplet-based microfluidics: control of cell numbers within living residues. *Biomedical Materials (Bristol)*, **2010**, 5, 21001	3.5	41
101	A novel process for simulataneous printing of multiple tracks from concentrated suspensions. *Materials Research Innovations*, **2003**, 7, 62-64	1.9	41
100	Dissection of the host-pathogen interaction in human tuberculosis using a bioengineered 3-dimensional model. *ELife*, **2017**, 6,	8.9	41
99	Combining bio-electrospraying with gene therapy: a novel biotechnique for the delivery of genetic material via living cells. *Analyst, The*, **2010**, 135, 1042-9	5	40
98	A novel direct aerodynamically assisted threading methodology for generating biologically viable microthreads encapsulating living primary cells. *Journal of Applied Polymer Science*, **2008**, 107, 1215-1225	2.9	40
97	Anti-PD-1 immunotherapy leads to tuberculosis reactivation via dysregulation of TNF-□*ELife*, **2020**, 9,	8.9	39
96	Aerodynamically assisted bio-jets: the development of a novel and direct non-electric field-driven methodology for engineering living organisms. *Biomedical Materials (Bristol)*, **2007**, 2, 158-68	3.5	38
95	Bio-electrosprays: the next generation of electrified jets. *Biotechnology Journal*, **2006**, 1, 1018-22	5.6	38
94	Electrospraying of a nano-hydroxyapatite suspension. *Journal of Materials Science*, **2004**, 39, 1029-1032	4.3	38
93	High resolution print-patterning of a nano-suspension. *Journal of Nanoparticle Research*, **2005**, 7, 301-306	2.3	38

92	The differentiation and engraftment potential of mouse hematopoietic stem cells is maintained after bio-electrospray. *Analyst, The*, **2010**, 135, 157-64	5	37
91	Bio-electrospraying and cell electrospinning: progress and opportunities for basic biology and clinical sciences. *Advanced Healthcare Materials*, **2012**, 1, 27-34	10.1	34
90	Bio-electrosprayed multicellular zebrafish embryos are viable and develop normally. *Biomedical Materials (Bristol)*, **2008**, 3, 011001	3.5	34
89	Influence of nanohydroxyapatite patterns deposited by electrohydrodynamic spraying on osteoblast response. *Journal of Biomedical Materials Research - Part A*, **2008**, 85, 188-94	5.4	32
88	Bio-protocols for directly forming active encapsulations containing living primary cells. *Soft Matter*, **2008**, 4, 1219-1229	3.6	31
87	Living scaffolds (specialized and unspecialized) for regenerative and therapeutic medicine. *Biomacromolecules*, **2008**, 9, 759-66	6.9	31
86	Bio-electrosprays: a novel electrified jetting methodology for the safe handling and deployment of primary living organisms. *Biotechnology Journal*, **2007**, 2, 622-30	5.6	31
85	Deposition of nano-hydroxyapatite particles utilising direct and transitional electrohydrodynamic processes. *Journal of Materials Science: Materials in Medicine*, **2008**, 19, 3093-104	4.5	31
84	Electrically forced jets and microthreads of high viscosity dielectric liquids. *Journal of Aerosol Science*, **2004**, 35, 233-243	4.3	31
83	Cardiac tissue engineering: renewing the arsenal for the battle against heart disease. *Integrative Biology (United Kingdom)*, **2014**, 6, 111-26	3.7	30
82	Bio-electrosprayed living composite matrix implanted into mouse models. *Macromolecular Bioscience*, **2011**, 11, 1364-9	5.5	30
81	Electrohydrodynamic atomization: an approach to growing continuous self-supporting polymeric fibers. *Journal of Physical Chemistry B*, **2006**, 110, 2522-8	3.4	30
80	Electrohydrodynamic Print-Patterning of Nano-Hydroxyapatite. *Journal of Biomedical Nanotechnology*, **2006**, 2, 201-207	4	29
79	Electric-field driven jetting from dielectric liquids. *Applied Physics Letters*, **2004**, 85, 4243-4245	3.4	25
78	Electrostatic atomization of a ceramic suspension at pico-flow rates. *Applied Physics A: Materials Science and Processing*, **2005**, 80, 399-404	2.6	25
77	Bio-electrospraying the nematode Caenorhabditis elegans: studying whole-genome transcriptional responses and key life cycle parameters. *Journal of the Royal Society Interface*, **2010**, 7, 595-601	4.1	24
76	Integration of scaffolds into full-thickness skin wounds: the connexin response. *Advanced Healthcare Materials*, **2013**, 2, 1151-60	10.1	23
75	Bio-electrospraying whole human blood: analysing cellular viability at a molecular level. *Journal of Tissue Engineering and Regenerative Medicine*, **2009**, 3, 562-6	4.4	23

74	A Novel Technique for Forming Self-Assembled Nanotube Structures. *Fullerenes Nanotubes and Carbon Nanostructures*, **2006**, 14, 67-81	1.8	23
73	Solid Freeform Fabrication of Thin-Walled Ceramic Structures Using an Electrohydrodynamic Jet. *Journal of the American Ceramic Society*, **2006**, 89, 1727-1729	3.8	23
72	Sustained Release of Cx43 Antisense Oligodeoxynucleotides from Coated Collagen Scaffolds Promotes Wound Healing. *Advanced Healthcare Materials*, **2016**, 5, 1786-99	10.1	23
71	Bio-electrospraying primary cardiac cells: in vitro tissue creation and functional study. *Biotechnology Journal*, **2011**, 6, 86-95	5.6	22
70	Direct jetting approaches for handling stem cells. *Biomedical Materials (Bristol)*, **2009**, 4, 015018	3.5	22
69	Development of a direct three-dimensional biomicrofabrication concept based on electrospraying a custom made siloxane sol. *Biomicrofluidics*, **2007**, 1, 34103	3.2	22
68	Bio-electrospraying living Xenopus tropicalis embryos: investigating the structural, functional and biological integrity of a model organism. *Analyst, The*, **2009**, 134, 743-7	5	21
67	Pressure-assisted cell spinning: a direct protocol for spinning biologically viable cell-bearing fibres and scaffolds. *Biomedical Materials (Bristol)*, **2007**, 2, 211-9	3.5	21
66	Development and fertility studies on post-bio-electrosprayed Drosophila melanogaster embryos. *Biomicrofluidics*, **2009**, 3, 44107	3.2	20
65	A novel direct fibre generation technique for preparing functionalized and compound scaffolds and membranes for applications within the life sciences. *Biomedical Materials (Bristol)*, **2007**, 2, 189-95	3.5	20
64	In vitro and in vivo interrogation of bio-sprayed cells. *Small*, **2012**, 8, 2495-500	11	19
63	Pilot study to investigate the possibility of cytogenetic and physiological changes in bio-electrosprayed human lymphocyte cells. *Regenerative Medicine*, **2008**, 3, 343-9	2.5	19
62	Aerodynamically assisted jet processing of viscous single- and multi-phase media. *Soft Matter*, **2007** , 3, 605-612	3.6	19
61	Platform Technologies for Directly Reconstructing 3D Living Biomaterials. *Advanced Materials*, **2015**, 27, 7794-9	24	18
60	Molecular characterisation of post-bio-electrosprayed human brain astrocytoma cells. *Analyst, The*, **2010**, 135, 2600-12	5	18
59	Genetic, genomic and physiological state studies on single-needle bio-electrosprayed human cells. *Analyst, The*, **2008**, 133, 1347-51	5	18
58	Coaxial Aerodynamically Assisted Bio-jets: A Versatile Paradigm for Directly Engineering Living Primary Organisms. *Engineering in Life Sciences*, **2007**, 7, 599-610	3.4	18
57	Flow behaviour of dielectric liquids in an electric field. *Journal of Fluid Mechanics*, **2006**, 558, 103	3.7	18

56	Bio-electrospraying and aerodynamically assisted bio-jetting the model eukaryotic Dictyostelium discoideum: assessing stress and developmental competency post treatment. *Journal of the Royal Society Interface*, **2011**, 8, 1185-91	4.1	17
55	Bio-electrosprays: the development of a promising tool for regenerative and therapeutic medicine. *Biotechnology Journal*, **2007**, 2, 934-7	5.6	17
54	Aspirin particle formation by electric-field-assisted release of droplets. *Chemical Engineering Science*, **2006**, 61, 3091-3097	4.4	17
53	Relic and droplet sizes produced by electrostatic atomisation of ceramic suspensions. *Applied Physics A: Materials Science and Processing*, **2004**, 78, 343-347	2.6	17
52	Jet break-up in nano-suspensions during electrohydrodynamic atomization in the stable cone-jet mode. *Journal of Nanoscience and Nanotechnology*, **2005**, 5, 923-6	1.3	16
51	Electrospraying: an in-situ polymerisation route for fabricating high macroporous scaffolds. *Journal of Sol-Gel Science and Technology*, **2006**, 38, 293-302	2.3	16
50	Pressure driven spinning: A multifaceted approach for preparing nanoscaled functionalized fibers, scaffolds, and membranes with advanced materials. *Biomicrofluidics*, **2010**, 4, 14106	3.2	15
49	Coaxial electrohydrodynamic direct writing of nano-suspensions. *Journal of Nanoparticle Research*, **2007**, 9, 825-831	2.3	15
48	Gene expression studies on bio-electrosprayed primary cardiac myocytes. *Biotechnology Journal*, **2008**, 3, 530-5	5.6	15
47	Preparation of lead zirconate titanate nano-powder by electrohydrodynamic atomization. *Applied Physics A: Materials Science and Processing*, **2005**, 80, 723-725	2.6	15
46	A hybrid bio-jetting approach for directly engineering living cells. *Biomedical Materials (Bristol)*, **2008**, 3, 025008	3.5	14
45	An advanced jet-based approach to processing nanotubes. *Physica E: Low-Dimensional Systems and Nanostructures*, **2006**, 31, 17-26	3	14
44	Bio-electrospraying and aerodynamically assisted bio-jetting whole human blood: Interrogating cell surface marker integrity. *Biomicrofluidics*, **2010**, 4, 11101	3.2	13
43	Aerodynamically assisted jetting and threading for processing concentrated suspensions containing advanced structural, functional and biological materials. *Biotechnology Journal*, **2009**, 4, 64-72	5.6	13
42	Advanced jet protocols for directly engineering living cells: a genesis to alternative biohandling approaches for the life sciences. *Regenerative Medicine*, **2008**, 3, 49-61	2.5	13
41	Genomic, genetic and physiological effects of bio-electrospraying on live cells of the model yeast Saccharomyces cerevisiae. *Biomedical Materials (Bristol)*, **2008**, 3, 034125	3.5	13
40	Unique aerodynamically driven methodology for forming droplets, threads to scaffolds. *Journal of Applied Polymer Science*, **2007**, 104, 3844-3848	2.9	13
39	Pressure-Assisted Spinning: A Versatile and Economical, Direct Fibre to Scaffold Spinning Methodology. *Macromolecular Rapid Communications*, **2007**, 28, 1491-1496	4.8	13

38	Direct writing of lead zirconate titanate piezoelectric structures by electrohydrodynamic atomisation. *Journal of Electroceramics*, **2007**, 19, 287-293	1.5	13
37	Thoughts on Scaffolds. *Advanced Biology*, **2017**, 1, e1700067	3.5	12
36	Nanofabrication by Electrohydrodynamic Jetting of a Tailor-Made Living Siloxane Sol. *Macromolecular Chemistry and Physics*, **2007**, 208, 2032-2038	2.6	12
35	Electrically forced microthreading of highly viscous dielectric liquids. *Journal of Electrostatics*, **2006**, 64, 355-360	1.7	12
34	General Computational Methodology for Modeling Electrohydrodynamic Flows: Prediction and Optimization Capability for the Generation of Bubbles and Fibers. *Langmuir*, **2019**, 35, 10203-10212	4	11
33	Biojets in regenerative biology & medicine. *Materials Today*, **2011**, 14, 202-211	21.8	11
32	Electrospinning nanosuspensions loaded with passivated Au nanoparticles. *Tetrahedron*, **2008**, 64, 8476-8483	2.4	11
31	Submerged electrosprays: a versatile approach for microencapsulation. *Journal of Microencapsulation*, **2007**, 24, 430-44	3.4	11
30	Coaxial Electrohydrodynamic Atomization of Ceramic Suspensions. *International Journal of Applied Ceramic Technology*, **2006**, 3, 55-60	2	11
29	Encapsulation of angiogenic monocytes using bio-spraying technology. *Integrative Biology (United Kingdom)*, **2012**, 4, 628-32	3.7	10
28	Versatile methodology for generating size-controlled composite micrometer beads capsulating nanomaterials. *Micro and Nano Letters*, **2007**, 2, 30	0.9	10
27	PRESSURE-ASSISTED SPINNING: A UNIQUE AND VERSATILE APPROACH FOR DIRECTLY FABRICATING MEMBRANES WITH MICRO- AND NANOFIBERS. *Nano*, **2007**, 02, 213-219	1.1	10
26	Encapsulation of macrophages enhances their retention and angiogenic potential. *Npj Regenerative Medicine*, **2019**, 4, 6	15.8	9
25	Aerodynamically assisted bio-jetting of hematopoietic stem cells. *Analyst, The*, **2012**, 137, 1329-33	5	9
24	Electrostatic atomization of chitosan. *Journal of Materials Science Letters*, **2003**, 22, 1443-1445		8
23	Novel forming of single and multiple ceramic micro-channels. *Applied Physics A: Materials Science and Processing*, **2005**, 80, 701-702	2.6	8
22	Biosprayed spleen cells integrate and function in mouse models. *Analyst, The*, **2011**, 136, 3434-7	5	6
21	Cell engineering: spearheading the next generation in healthcare. *Biomedical Materials (Bristol)*, **2008**, 3, 034004	3.5	6

20	Aerodynamically Assisted Jets: A Paradigm for Directly Microbubbling and Microfoaming Combinations of Advanced Materials. *Advanced Materials*, **2008**, 20, 4419-4422	24	6
19	Preparation of collagen films by electrostatic atomization. *Journal of Materials Science Letters*, **2003**, 22, 1617-1619		6
18	Electrospray self-assembly: An emerging jet-based route for directly forming nanoscaled structures. *Physica E: Low-Dimensional Systems and Nanostructures*, **2008**, 40, 2911-2915	3	5
17	A versatile pressure assisted jet-fabrication by coating approach for forming biocompatible constructs for tissue engineering. *Materials Letters*, **2008**, 62, 2574-2577	3.3	4
16	Do Surface Defects and Modification Determine the Observed Toxicity of Carbon Nanotubes?. *Journal of Biomedical Nanotechnology*, **2008**, 4, 515-523	4	4
15	Obtaining fine droplet relics by electrostatic atomization of viscous liquids. *Journal of Materials Science Letters*, **2002**, 21, 371-373		4
14	Bio-electrosprayed human sperm remain viable. *Materials Today*, **2019**, 31, 21-30	21.8	3
13	Regenerative Medicine: Bio-electrospraying and Cell Electrospinning: Progress and Opportunities for Basic Biology and Clinical Sciences (Adv. Healthcare Mater. 1/2012). *Advanced Healthcare Materials*, **2012**, 1, 26-26	10.1	3
12	Preface to Special Topic: Biological microfluidics in tissue engineering and regenerative medicine. *Biomicrofluidics*, **2011**, 5, 13301	3.2	3
11	Biosprays: from the biomedical to the clinical sciences. *Cell Cycle*, **2011**, 10, 4184-6	4.7	3
10	Aerodynamically assisted jetting: a rapidly emerging microfabrication methodology. *Micro and Nano Letters*, **2007**, 2, 78	0.9	3
9	A unique physical-chemistry approach for fabricating cell friendly surfaces. *Biotechnology Journal*, **2008**, 3, 124-8	5.6	3
8	Targeting Cx26 Expression by Sustained Release of Cx26 Antisense from Scaffolds Reduces Inflammation and Improves Wound Healing. *Advanced Biology*, **2018**, 2, 1800227	3.5	3
7	Reimagining Flow Cytometric Cell Sorting. *Advanced Biology*, **2020**, 4, e2000019	3.5	2
6	Bio-electrosprayed human neural stem cells are viable and maintain their differentiation potential. *F1000Research*, **2020**, 9, 267	3.6	2
5	Bio-electrosprayed human neural stem cells are viable and maintain their differentiation potential. *F1000Research*, **2020**, 9, 267	3.6	2
4	Characterisation of electrospun PS/PU polymer blend fibre mat for oil sorption. *Polymer*, **2021**, 212, 123129	3.9	2
3	Direct cell engineering reaches the jet age. *Materials Today*, **2007**, 10, 60	21.8	1

2	Unspooling the history of cell electrospinning. *Matter*, **2022**, 5, 4-7	12.7	1
1	Bio-electrosprays and Aerodynamically Assisted Bio-jets, Flow Cytometry Concepts for Interrogating Living Cells and Whole Organisms. *Materials Research Society Symposia Proceedings*, **2009**, 1239, 1		