Suwan N Jayasinghe

List of Publications by Year
in descending order

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138 papers	4,607 citations	94269 37 h-index	123241 61 g-index
142 all docs	142 docs citations	142 times ranked	3815 citing authors

#	Article	IF	Citations
1	Cell Electrospinning:Â a Unique Biotechnique for Encapsulating Living Organisms for Generating Active Biological Microthreads/Scaffolds. Biomacromolecules, 2006, 7, 3364-3369.	2.6	430
2	Electrohydrodynamic Jet Processing: An Advanced Electric-Field-Driven Jetting Phenomenon for Processing Living Cells. Small, 2006, 2, 216-219.	5.2	260
3	In vitro assessment of the biological response to nano-sized hydroxyapatite. Journal of Materials Science: Materials in Medicine, 2004, 15, 441-445.	1.7	180
4	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.	1.7	177
5	Cell electrospinning highly concentrated cellular suspensions containing primary living organisms into cell-bearing threads and scaffolds. Nanomedicine, 2007, 2, 555-567.	1.7	124
6	Effect of viscosity on the size of relics produced by electrostatic atomization. Journal of Aerosol Science, 2002, 33, 1379-1388.	1.8	114
7	Stable electric-field driven cone-jetting of concentrated biosuspensions. Lab on A Chip, 2006, 6, 1086.	3.1	99
8	The Extracellular Matrix Regulates Granuloma Necrosis in Tuberculosis. Journal of Infectious Diseases, 2015, 212, 463-473.	1.9	90
9	The role of surface wettability and surface charge of electrosprayed nanoapatites on the behaviour of osteoblasts. Acta Biomaterialia, 2010, 6, 750-755.	4.1	89
10	Controlled Generation of Microspheres Incorporating Extracellular Matrix Fibrils for Threeâ€Dimensional Cell Culture. Advanced Functional Materials, 2014, 24, 2648-2657.	7.8	87
11	Cell Electrospinning: An In Vitro and In Vivo Study. Small, 2014, 10, 78-82.	5.2	81
12	Anti-PD-1 immunotherapy leads to tuberculosis reactivation via dysregulation of TNF-Î±. ELife, 2020, 9, .	2.8	76
13	Electric field driven jetting: an emerging approach for processing living cells. Biotechnology Journal, 2006, 1, 86-94.	1.8	75
14	A novel ceramic printing technique based on electrostatic atomization of a suspension. Materials Research Innovations, 2002, 6, 92-95.	1.0	70
15	The role of electrosprayed apatite nanocrystals in guiding osteoblast behaviour. Biomaterials, 2008, 29, 1833-1843.	5.7	68
16	Electrohydrodynamic jetting of mouse neuronal cells. Biochemical Journal, 2006, 394, 375-378.	1.7	66
17	Novel deposition of nano-sized silicon substituted hydroxyapatite by electrostatic spraying. Journal of Materials Science: Materials in Medicine, 2005, 16, 1137-1142.	1.7	60
18	Controlled deposition of nanoparticle clusters by electrohydrodynamic atomization. Nanotechnology, 2004, 15, 1519-1523.	1.3	59

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19	Dissection of the host-pathogen interaction in human tuberculosis using a bioengineered 3-dimensional model. ELife, 2017, 6, .	2.8	58
20	Electrostatic atomisation of a ceramic suspension. Journal of the European Ceramic Society, 2004, 24, 2203-2213.	2.8	57
21	Cell electrospinning cardiac patches for tissue engineering the heart. Analyst, The, 2014, 139, 4449-4452.	1.7	56
22	A Novel Method of Forming Open Cell Ceramic Foam. Journal of Porous Materials, 2002, 9, 265-273.	1.3	53
23	Bio-electrospraying embryonic stem cells: interrogating cellular viability and pluripotency. Integrative Biology (United Kingdom), 2009, 1, 260.	0.6	52
24	Electrohydrodynamic atomization of protein (bovine serum albumin). Journal of Materials Science: Materials in Medicine, 2005, 16, 919-925.	1.7	50
25	Instrument for electrohydrodynamic print-patterning three-dimensional complex structures. Review of Scientific Instruments, 2005, 76, 075105.	0.6	50
26	Bio-electrosprays: from bio-analytics to a generic tool for the health sciences. Analyst, The, 2011, 136, 878.	1.7	48
27	Self-assembled nanostructures via electrospraying. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 33, 398-406.	1.3	47
28	Bio-electrospraying and droplet-based microfluidics: control of cell numbers within living residues. Biomedical Materials (Bristol), 2010, 5, 021001.	1.7	46
29	A novel process for simulataneous printing of multiple tracks from concentrated suspensions. Materials Research Innovations, 2003, 7, 62-64.	1.0	44
30	Electrospraying of a nano-hydroxyapatite suspension. Journal of Materials Science, 2004, 39, 1029-1032.	1.7	43
31	Combining bio-electrospraying with gene therapy: a novel biotechnique for the delivery of genetic material via living cells. Analyst, The, 2010, 135, 1042.	1.7	43
32	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.	1.3	42
33	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, 158-168.	1.7	41
34	The differentiation and engraftment potential of mouse hematopoietic stem cells is maintained after bio-electrospray. Analyst, The, 2010, 135, 157-164.	1.7	41
35	Bioâ€electrospraying and Cell Electrospinning: Progress and Opportunities for Basic Biology and Clinical Sciences. Advanced Healthcare Materials, 2012, 1, 27-34.	3.9	41
36	High resolution print-patterning of a nano-suspension. Journal of Nanoparticle Research, 2005, 7, 301-306.	0.8	40

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37	Bio-electrosprays: The next generation of electrified jets. Biotechnology Journal, 2006, 1, 1018-1022.	1.8	40
38	Influence of nanohydroxyapatite patterns deposited by electrohydrodynamic spraying on osteoblast response. Journal of Biomedical Materials Research - Part A, 2008, 85A, 188-194.	2.1	36
39	Bio-electrosprayed multicellular zebrafish embryos are viable and develop normally. Biomedical Materials (Bristol), 2008, 3, 011001.	1.7	36
40	Deposition of nano-hydroxyapatite particles utilising direct and transitional electrohydrodynamic processes. Journal of Materials Science: Materials in Medicine, 2008, 19, 3093-3104.	1.7	35
41	Cardiac tissue engineering: renewing the arsenal for the battle against heart disease. Integrative Biology (United Kingdom), 2014, 6, 111-126.	0.6	35
42	Bio-protocols for directly forming active encapsulations containing living primary cells. Soft Matter, 2008, 4, 1219.	1.2	34
43	Electrically forced jets and microthreads of high viscosity dielectric liquids. Journal of Aerosol Science, 2004, 35, 233-243.	1.8	33
44	Bio-electrosprays: A novel electrified jetting methodology for the safe handling and deployment of primary living organisms. Biotechnology Journal, 2007, 2, 622-630.	1.8	33
45	Living Scaffolds (Specialized and Unspecialized) for Regenerative and Therapeutic Medicine. Biomacromolecules, 2008, 9, 759-766.	2.6	33
46	Bioâ€electrosprayed Living Composite Matrix Implanted into Mouse Models. Macromolecular Bioscience, 2011, 11, 1364-1369.	2.1	33
47	Electrohydrodynamic Print-Patterning of Nano-Hydroxyapatite. Journal of Biomedical Nanotechnology, 2006, 2, 201-207.	0.5	31
48	Electrohydrodynamic Atomization:Â An Approach to Growing Continuous Self-Supporting Polymeric Fibers. Journal of Physical Chemistry B, 2006, 110, 2522-2528.	1.2	30
49	Sustained Release of Cx43 Antisense Oligodeoxynucleotides from Coated Collagen Scaffolds Promotes Wound Healing. Advanced Healthcare Materials, 2016, 5, 1786-1799.	3.9	28
50	Electric-field driven jetting from dielectric liquids. Applied Physics Letters, 2004, 85, 4243-4245.	1.5	26
51	Electrostatic atomization of a ceramic suspension at pico-flow rates. Applied Physics A: Materials Science and Processing, 2005, 80, 399-404.	1.1	26
52	Bio-electrospraying the nematode <i>Caenorhabditis elegans</i> : studying whole-genome transcriptional responses and key life cycle parameters. Journal of the Royal Society Interface, 2010, 7, 595-601.	1.5	26
53	Solid Freeform Fabrication of Thin-Walled Ceramic Structures Using an Electrohydrodynamic Jet. Journal of the American Ceramic Society, 2006, 89, 1727-1729.	1.9	25
54	Development of a direct three-dimensional biomicrofabrication concept based on electrospraying a custom made siloxane sol. Biomicrofluidics, 2007, 1, 34103.	1.2	25

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55	Bioâ€electrospraying primary cardiac cells: <i>In vitro</i> tissue creation and functional study. Biotechnology Journal, 2011, 6, 86-95.	1.8	25
56	Integration of Scaffolds into Fullâ€Thickness Skin Wounds: The Connexin Response. Advanced Healthcare Materials, 2013, 2, 1151-1160.	3.9	25
57	Platform Technologies for Directly Reconstructing 3D Living Biomaterials. Advanced Materials, 2015, 27, 7794-7799.	11.1	25
58	Bio-electrospraying whole human blood: analysing cellular viability at a molecular level. Journal of Tissue Engineering and Regenerative Medicine, 2009, 3, 562-566.	1.3	24
59	Flow behaviour of dielectric liquids in an electric field. Journal of Fluid Mechanics, 2006, 558, 103.	1.4	23
60	A Novel Technique for Forming Selfâ€Assembled Nanotube Structures. Fullerenes Nanotubes and Carbon Nanostructures, 2006, 14, 67-81.	1.0	23
61	Direct jetting approaches for handling stem cells. Biomedical Materials (Bristol), 2009, 4, 015018.	1.7	22
62	Pressure-assisted cell spinning: a direct protocol for spinning biologically viable cell-bearing fibres and scaffolds. Biomedical Materials (Bristol), 2007, 2, 211-219.	1.7	21
63	Pilot study to investigate the possibility of cytogenetic and physiological changes in bio-electrosprayed human lymphocyte cells. Regenerative Medicine, 2008, 3, 343-349.	0.8	21
64	Bio-electrospraying living Xenopus tropicalis embryos: investigating the structural, functional and biological integrity of a model organism. Analyst, The, 2009, 134, 743.	1.7	21
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, 189-195.	1.7	20
66	Aerodynamically assisted jet processing of viscous single- and multi-phase media. Soft Matter, 2007, 3, 605.	1.2	20
67	Development and fertility studies on post-bio-electrosprayed Drosophila melanogaster embryos. Biomicrofluidics, 2009, 3, 044107.	1.2	20
68	Aspirin particle formation by electric-field-assisted release of droplets. Chemical Engineering Science, 2006, 61, 3091-3097.	1.9	19
69	Coaxial Aerodynamically Assisted Bioâ€jets: A Versatile Paradigm for Directly Engineering Living Primary Organisms. Engineering in Life Sciences, 2007, 7, 599-610.	2.0	19
70	Coaxial electrohydrodynamic direct writing of nano-suspensions. Journal of Nanoparticle Research, 2007, 9, 825-831.	0.8	19
71	Molecular characterisation of post-bio-electrosprayed human brain astrocytoma cells. Analyst, The, 2010, 135, 2600.	1.7	19
72	Bio-electrospraying and aerodynamically assisted bio-jetting the model eukaryotic <i>Dictyostelium discoideum</i> : assessing stress and developmental competency post treatment. Journal of the Royal Society Interface, 2011, 8, 1185-1191.	1.5	19

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73	In Vitro and In Vivo Interrogation of Bioâ€sprayed Cells. Small, 2012, 8, 2495-2500.	5.2	19
74	Bio-electrosprays: The development of a promising tool for regenerative and therapeutic medicine. Biotechnology Journal, 2007, 2, 934-937.	1.8	18
75	Genetic, genomic and physiological state studies on single-needle bio-electrosprayed human cells. Analyst, The, 2008, 133, 1347.	1.7	18
76	Pressure driven spinning: A multifaceted approach for preparing nanoscaled functionalized fibers, scaffolds, and membranes with advanced materials. Biomicrofluidics, 2010, 4, 14106.	1.2	18
77	General Computational Methodology for Modeling Electrohydrodynamic Flows: Prediction and Optimization Capability for the Generation of Bubbles and Fibers. Langmuir, 2019, 35, 10203-10212.	1.6	18
78	Relic and droplet sizes produced by electrostatic atomisation of ceramic suspensions. Applied Physics A: Materials Science and Processing, 2004, 78, 343-347.	1.1	17
79	Jet Break-Up in Nano-suspensions During Electrohydrodynamic Atomization in the Stable Cone-Jet Mode. Journal of Nanoscience and Nanotechnology, 2005, 5, 923-926.	0.9	17
80	A hybrid bio-jetting approach for directly engineering living cells. Biomedical Materials (Bristol), 2008, 3, 025008.	1.7	17
81	Preparation of lead zirconate titanate nano-powder by electrohydrodynamic atomization. Applied Physics A: Materials Science and Processing, 2005, 80, 723-725.	1.1	16
82	Electrospraying: an in-situ polymerisation route for fabricating high macroporous scaffolds. Journal of Sol-Gel Science and Technology, 2006, 38, 293-302.	1.1	16
83	Biojets in regenerative biology & medicine. Materials Today, 2011, 14, 202-211.	8.3	16
84	Electrically forced microthreading of highly viscous dielectric liquids. Journal of Electrostatics, 2006, 64, 355-360.	1.0	15
85	Direct writing of lead zirconate titanate piezoelectric structures by electrohydrodynamic atomisation. Journal of Electroceramics, 2007, 19, 287-293.	0.8	15
86	Gene expression studies on bioâ€electrosprayed primary cardiac myocytes. Biotechnology Journal, 2008, 3, 530-535.	1.8	15
87	Aerodynamically assisted jetting and threading for processing concentrated suspensions containing advanced structural, functional and biological materials. Biotechnology Journal, 2009, 4, 64-72.	1.8	15
88	An advanced jet-based approach to processing nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2006, 31, 17-26.	1.3	14
89	Pressure-Assisted Spinning: A Versatile and Economical, Direct Fibre to Scaffold Spinning Methodology. Macromolecular Rapid Communications, 2007, 28, 1491-1496.	2.0	14
90	Bio-electrospraying and aerodynamically assisted bio-jetting whole human blood: Interrogating cell surface marker integrity. Biomicrofluidics, 2010, 4, 11101.	1.2	14

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91	Thoughts on Scaffolds. Advanced Biology, 2017, 1, e1700067.	3.0	14
92	Encapsulation of macrophages enhances their retention and angiogenic potential. Npj Regenerative Medicine, 2019, 4, 6.	2.5	14
93	Characterisation of electrospun PS/PU polymer blend fibre mat for oil sorption. Polymer, 2021, 212, 123129.	1.8	14
94	Unique aerodynamically driven methodology for forming droplets, threads to scaffolds. Journal of Applied Polymer Science, 2007, 104, 3844-3848.	1.3	13
95	Advanced jet protocols for directly engineering living cells: a genesis to alternative biohandling approaches for the life sciences. Regenerative Medicine, 2008, 3, 49-61.	0.8	13
96	Genomic, genetic and physiological effects of bio-electrospraying on live cells of the model yeast <i>Saccharomyces cerevisiae</i>. Biomedical Materials (Bristol), 2008, 3, 034125.	1.7	13
97	Submerged electrosprays: A versatile approach for microencapsulation. Journal of Microencapsulation, 2007, 24, 430-444.	1.2	12
98	Nanofabrication by Electrohydrodynamic Jetting of a Tailorâ€Made Living Siloxane Sol. Macromolecular Chemistry and Physics, 2007, 208, 2032-2038.	1.1	12
99	Electrospinning nanosuspensions loaded with passivated Au nanoparticles. Tetrahedron, 2008, 64, 8476-8483.	1.0	12
100	Encapsulation of angiogenic monocytes using bio-spraying technology. Integrative Biology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	0.6	12
101	Coaxial Electrohydrodynamic Atomization of Ceramic Suspensions. International Journal of Applied Ceramic Technology, 2006, 3, 55-60.	1.1	11
102	PRESSURE-ASSISTED SPINNING: A UNIQUE AND VERSATILE APPROACH FOR DIRECTLY FABRICATING MEMBRANES WITH MICRO- AND NANOFIBERS. Nano, 2007, 02, 213-219.	0.5	10
103	Versatile methodology for generating size-controlled composite micrometer beads capsulating nanomaterials. Micro and Nano Letters, 2007, 2, 30.	0.6	10
104	Advanced Polymers for Stem Cell Biology and Medicine. Macromolecular Bioscience, 2011, 11, 11-12.	2.1	10
105	Aerodynamically assisted bio-jetting of hematopoietic stem cells. Analyst, The, 2012, 137, 1329.	1.7	10
106	Unspooling the history of cell electrospinning. Matter, 2022, 5, 4-7.	5.0	10
107	Novel forming of single and multiple ceramic micro-channels. Applied Physics A: Materials Science and Processing, 2005, 80, 701-702.	1.1	9
108	Electrostatic atomization of chitosan. Journal of Materials Science Letters, 2003, 22, 1443-1445.	0.5	8

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109	Aerodynamically Assisted Jets: A Paradigm for Directly Microbubbling and Microfoaming Combinations of Advanced Materials. Advanced Materials, 2008, 20, 4419-4422.	11.1	7
110	Do Surface Defects and Modification Determine the Observed Toxicity of Carbon Nanotubes?. Journal of Biomedical Nanotechnology, 2008, 4, 515-523.	0.5	7
111	Preparation of collagen films by electrostatic atomization. Journal of Materials Science Letters, 2003, 22, 1617-1619.	0.5	6
112	Cell engineering: spearheading the next generation in healthcare. Biomedical Materials (Bristol), 2008, 3, 034004.	1.7	6
113	Biosprayed spleen cells integrate and function in mouse models. Analyst, The, 2011, 136, 3434.	1.7	6
114	Reimagining Flow Cytometric Cell Sorting. Advanced Biology, 2020, 4, 2000019.	3.0	6
115	Bio-electrosprayed human neural stem cells are viable and maintain their differentiation potential. F1000Research, 2020, 9, 267.	0.8	6
116	Obtaining fine droplet relics by electrostatic atomization of viscous liquids. Journal of Materials Science Letters, 2002, 21, 371-373.	0.5	5
117	Electrospray self-assembly: An emerging jet-based route for directly forming nanoscaled structures. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2911-2915.	1.3	5
118	A versatile pressure assisted jet-fabrication by coating approach for forming biocompatible constructs for tissue engineering. Materials Letters, 2008, 62, 2574-2577.	1.3	4
119	Engineering towards functional tissues and organs. Organogenesis, 2010, 6, 139-140.	0.4	4
120	Targeting Cx26 Expression by Sustained Release of Cx26 Antisense from Scaffolds Reduces Inflammation and Improves Wound Healing. Advanced Biology, 2018, 2, 1800227.	3.0	4
121	Bio-electrosprayed human sperm remain viable. Materials Today, 2019, 31, 21-30.	8.3	4
122	Editorial: Advances in jet-based approaches. Biotechnology Journal, 2006, 1, 883-884.	1.8	3
123	Aerodynamically assisted jetting: a rapidly emerging microfabrication methodology. Micro and Nano Letters, 2007, 2, 78.	0.6	3
124	A unique physicalâ€chemistry approach for fabricating cell friendly surfaces. Biotechnology Journal, 2008, 3, 124-128.	1.8	3
125	Preface to Special Topic: Biological microfluidics in tissue engineering and regenerative medicine. Biomicrofluidics, 2011, 5, 013301.	1.2	3
126	Biosprays: From the biomedical to the clinical sciences. Cell Cycle, 2011, 10, 4184-4185.	1.3	3

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127	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.	3.9	3
128	Biomaterials and Bioengineering Tomorrowâ€™s Healthcare. Biomatter, 2013, 3, e25887.	2.6	3
129	Bio-electrosprayed human neural stem cells are viable and maintain their differentiation potential. F1000Research, 2020, 9, 267.	0.8	3
130	Tissue therapeutics and regenerative medicine. Drug Discovery Today, 2014, 19, 711-713.	3.2	2
131	Direct cell engineering reaches the jet age. Materials Today, 2007, 10, 60.	8.3	1
132	Advanced processing routes for tissue engineering and regenerative medicine. Biomedical Materials (Bristol), 2008, 3, 030201.	1.7	1
133	Advanced Polymers for Stem Cell Biology and Medicine, Part 2. Macromolecular Bioscience, 2011, 11, 1456-1457.	2.1	1
134	Inside Front Cover: Aerodynamically Assisted Jets: A Paradigm for Directly Microbubbling and Microfoaming Combinations of Advanced Materials (Adv. Mater. 23/2008). Advanced Materials, 2008, 20, NA-NA.	11.1	0
135	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.	0.1	0
136	Macromol. Biosci. 1/2011. Macromolecular Bioscience, 2011, 11, .	2.1	0
137	Macromol. Biosci. 10/2011. Macromolecular Bioscience, 2011, 11, .	2.1	0
138	Advanced Polymers for Stem Cell Biology and Medicine - from Laboratory to Clinic. Macromolecular Bioscience, 2013, 13, 825-826.	2.1	0