

# Stephen T Beirne

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

73  
papers

2,636  
citations

27  
h-index

50  
g-index

78  
ext. papers

3,158  
ext. citations

7.5  
avg, IF

5.09  
L-index

#	Paper	IF	Citations
73	Wearable Photo-Thermo-Electrochemical Cells (PTECs) Harvesting Solar Energy.. <i>Macromolecular Rapid Communications</i> , <b>2022</b> , e2200001	4.8	1
72	All-polymer wearable thermoelectrochemical cells harvesting body heat.. <i>IScience</i> , <b>2021</b> , 24, 103466	6.1	2
71	The significance of supporting electrolyte on poly (vinyl alcohol)/iron(II)/iron(III) solid-state electrolytes for wearable thermo-electrochemical cells. <i>Electrochemistry Communications</i> , <b>2021</b> , 124, 106938	5.1	13
70	Additive manufacturing enables personalised porous high-density polyethylene surgical implant manufacturing with improved tissue and vascular ingrowth. <i>Applied Materials Today</i> , <b>2021</b> , 22, 100965	6.6	4
69	Electrochemiluminescence at 3D Printed Titanium Electrodes. <i>Frontiers in Chemistry</i> , <b>2021</b> , 9, 662810	5	3
68	3D bioprinting dermal-like structures using species-specific ulvan. <i>Biomaterials Science</i> , <b>2021</b> , 9, 2424-2438	3.4	4
67	Wireless electrochemiluminescence at functionalised gold microparticles using 3D titanium electrode arrays. <i>Chemical Communications</i> , <b>2021</b> , 57, 4642-4645	5.8	5
66	Fused filament fabrication 3D printed polylactic acid electroosmotic pumps. <i>Lab on A Chip</i> , <b>2021</b> , 21, 3338-3351	7.2	1
65	3D printing of highly flexible, cytocompatible nanocomposites for thermal management. <i>Journal of Materials Science</i> , <b>2021</b> , 56, 6385-6400	4.3	4
64	Smart polymer implants as an emerging technology for treating airway collapse in obstructive sleep apnea: a pilot (proof of concept) study. <i>Journal of Clinical Sleep Medicine</i> , <b>2021</b> , 17, 315-324	3.1	
63	Free-form co-axial bioprinting of a gelatin methacryloyl bio-ink by direct in situ photo-crosslinking during extrusion. <i>Bioprinting</i> , <b>2020</b> , 19, e00087	7	11
62	Modeling the upper airway: A precursor to personalized surgical interventions for the treatment of sleep apnea. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2020</b> , 108, 1419-1425	5.4	1
61	Multitechnology Biofabrication: A New Approach for the Manufacturing of Functional Tissue Structures?. <i>Trends in Biotechnology</i> , <b>2020</b> , 38, 1316-1328	15.1	35
60	Bipolar electroactive conducting polymers for wireless cell stimulation. <i>Applied Materials Today</i> , <b>2020</b> , 21, 100804	6.6	6
59	Data on the bipolar electroactive conducting polymers for wireless cell stimulation. <i>Data in Brief</i> , <b>2020</b> , 33, 106406	1.2	1
58	Advanced Wearable Thermocells for Body Heat Harvesting. <i>Advanced Energy Materials</i> , <b>2020</b> , 10, 2002539	11.8	41
57	A 3D-Printed Electrochemical Water Splitting Cell. <i>Advanced Materials Technologies</i> , <b>2019</b> , 4, 1900433	6.8	11

56	Human Neural Tissues From Neural Stem Cells Using Conductive Biogel and Printed Polymer Microelectrode Arrays for 3D Electrical Stimulation. <i>Advanced Healthcare Materials</i> , <b>2019</b> , 8, e1900425	10.1	35
55	3D Printing for Electrocatalytic Applications. <i>Joule</i> , <b>2019</b> , 3, 1835-1849	27.8	45
54	Development of rhamnose-rich hydrogels based on sulfated xylorhamno-uronic acid toward wound healing applications. <i>Biomaterials Science</i> , <b>2019</b> , 7, 3497-3509	7.4	14
53	Three-Dimensional Printed Braided Sleeves for Manufacturing McKibben Artificial Muscles. <i>3D Printing and Additive Manufacturing</i> , <b>2019</b> , 6, 57-62	4	5
52	Development of a Coaxial 3D Printing Platform for Biofabrication of Implantable Islet-Containing Constructs. <i>Advanced Healthcare Materials</i> , <b>2019</b> , 8, e1801181	10.1	34
51	Three-Dimensional Printing of Abrasive, Hard, and Thermally Conductive Synthetic Microdiamond-Polymer Composite Using Low-Cost Fused Deposition Modeling Printer. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 4353-4363	9.5	40
50	Processable Thermally Conductive Polyurethane Composite Fibers. <i>Macromolecular Materials and Engineering</i> , <b>2019</b> , 304, 1800542	3.9	16
49	Development of Graphene Oxide/Polyaniline Inks for High Performance Flexible Microsupercapacitors via Extrusion Printing. <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1706592	15.6	112
48	In situ handheld three-dimensional bioprinting for cartilage regeneration. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2018</b> , 12, 611-621	4.4	155
47	The Bionic Bra: Using electromaterials to sense and modify breast support to enhance active living. <i>Journal of Rehabilitation and Assistive Technologies Engineering</i> , <b>2018</b> , 5, 2055668318775905	1.7	9
46	Supercapacitors: Development of Graphene Oxide/Polyaniline Inks for High Performance Flexible Microsupercapacitors via Extrusion Printing (Adv. Funct. Mater. 21/2018). <i>Advanced Functional Materials</i> , <b>2018</b> , 28, 1870142	15.6	18
45	3D Printed Electrodes for Improved Gas Reactant Transport for Electrochemical Reactions. <i>3D Printing and Additive Manufacturing</i> , <b>2018</b> , 5, 215-219	4	5
44	Recent Development of Fabricating Flexible Micro-Supercapacitors for Wearable Devices. <i>Advanced Materials Technologies</i> , <b>2018</b> , 3, 1800028	6.8	40
43	Investigating the Effect of Column Geometry on Separation Efficiency using 3D Printed Liquid Chromatographic Columns Containing Polymer Monolithic Phases. <i>Analytical Chemistry</i> , <b>2018</b> , 90, 1186-1194	7.8	33
42	Conductive Tough Hydrogel for Bioapplications. <i>Macromolecular Bioscience</i> , <b>2018</b> , 18, 1700270	5.5	32
41	Advanced fabrication approaches to controlled delivery systems for epilepsy treatment. <i>Expert Opinion on Drug Delivery</i> , <b>2018</b> , 15, 915-925	8	11
40	Electrical Stimulation with a Conductive Polymer Promotes Neurite Outgrowth and Synaptogenesis in Primary Cortical Neurons in 3D. <i>Scientific Reports</i> , <b>2018</b> , 8, 9855	4.9	22
39	High Power Density Electrochemical Thermocells for Inexpensively Harvesting Low-Grade Thermal Energy. <i>Advanced Materials</i> , <b>2017</b> , 29, 1605652	24	108

38	System and process development for coaxial extrusion in fused deposition modelling. <i>Rapid Prototyping Journal</i> , <b>2017</b> , 23, 543-550	3.8	8
37	Ionic interactions to tune mechanical and electrical properties of hydrated liquid crystal graphene oxide films. <i>Materials Chemistry and Physics</i> , <b>2017</b> , 186, 90-97	4.4	2
36	3D-Printed Conical Arrays of TiO <sub>2</sub> Electrodes for Enhanced Photoelectrochemical Water Splitting. <i>Advanced Energy Materials</i> , <b>2017</b> , 7, 1701060	21.8	48
35	Electrotactic ionic liquid droplets. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 239, 1069-1075	8.5	13
34	Wearable Sensor for Real-Time Monitoring of Electrolytes in Sweat. <i>Proceedings (mdpi)</i> , <b>2017</b> , 1, 724	0.3	
33	Additive Manufacturing, Modeling and Performance Evaluation of 3D Printed Fins for Surfboards. <i>MRS Advances</i> , <b>2017</b> , 2, 913-920	0.7	8
32	Cell compatible encapsulation of filaments into 3D hydrogels. <i>Biofabrication</i> , <b>2016</b> , 8, 025013	10.5	3
31	WEATCHIP Wearable Platform for Harvesting and Analysing Sweat Sodium Content. <i>Electroanalysis</i> , <b>2016</b> , 28, 1283-1289	3	95
30	3D printed titanium micro-bore columns containing polymer monoliths for reversed-phase liquid chromatography. <i>Analytica Chimica Acta</i> , <b>2016</b> , 910, 84-94	6.6	55
29	Development of the Biopen: a handheld device for surgical printing of adipose stem cells at a chondral wound site. <i>Biofabrication</i> , <b>2016</b> , 8, 015019	10.5	136
28	Porosity of Bleb Capsule declines rapidly with Fluid Challenge. <i>Journal of Current Glaucoma Practice</i> , <b>2016</b> , 10, 91-96	1.1	8
27	Facile Fabrication of Flexible Microsupercapacitor with High Energy Density. <i>Advanced Materials Technologies</i> , <b>2016</b> , 1, 1600166	6.8	35
26	Fabrication and characterization of a magnetic micro-actuator based on deformable Fe-doped PDMS artificial cilium using 3D printing. <i>Smart Materials and Structures</i> , <b>2015</b> , 24, 035015	3.4	23
25	Determination of bleb capsule porosity with an experimental glaucoma drainage device and measurement system. <i>JAMA Ophthalmology</i> , <b>2015</b> , 133, 549-54	3.9	5
24	Knitted Strain Sensor Textiles of Highly Conductive All-Polymeric Fibers. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 21150-8	9.5	204
23	3D printed metal columns for capillary liquid chromatography. <i>Analyst, The</i> , <b>2014</b> , 139, 6343-7	5	76
22	Performance enhancement of single-walled nanotube/microwave exfoliated graphene oxide composite electrodes using a stacked electrode configuration. <i>Journal of Materials Chemistry A</i> , <b>2014</b> , 2, 14835-14843	13	14
21	Coaxial additive manufacture of biomaterial composite scaffolds for tissue engineering. <i>Biofabrication</i> , <b>2014</b> , 6, 025002	10.5	30

20	Three dimensional (3D) printed electrodes for interdigitated supercapacitors. <i>Electrochemistry Communications</i> , <b>2014</b> , 41, 20-23	5.1	150
19	Extrusion printing of ionic-covalent entanglement hydrogels with high toughness. <i>Journal of Materials Chemistry B</i> , <b>2013</b> , 1, 4939-4946	7.3	133
18	Bio-ink for on-demand printing of living cells. <i>Biomaterials Science</i> , <b>2013</b> , 1, 224-230	7.4	153
17	Extrusion Printed Graphene/Polycaprolactone/Composites for Tissue Engineering. <i>Materials Science Forum</i> , <b>2013</b> , 773-774, 496-502	0.4	16
16	Manganosite microwave exfoliated graphene oxide composites for asymmetric supercapacitor device applications. <i>Electrochimica Acta</i> , <b>2013</b> , 101, 99-108	6.7	75
15	Carbon nanotube - reduced graphene oxide composites for thermal energy harvesting applications. <i>Advanced Materials</i> , <b>2013</b> , 25, 6602-6	24	130
14	Development of a Coaxial Melt Extrusion Printing process for specialised composite bioscaffold fabrication <b>2013</b> ,		5
13	The optimisation of a paired emitter-detector diode optical pH sensing device. <i>Sensors and Actuators B: Chemical</i> , <b>2011</b> , 153, 182-187	8.5	12
12	Remote real-time monitoring of subsurface landfill gas migration. <i>Sensors</i> , <b>2011</b> , 11, 6603-28	3.8	13
11	A wearable electrochemical sensor for the real-time measurement of sweat sodium concentration. <i>Analytical Methods</i> , <b>2010</b> , 2, 342	3.2	188
10	Autonomous greenhouse gas measurement system for analysis of gas migration on landfill sites <b>2010</b> ,		11
9	Wireless aquatic navigator for detection and analysis (WANDA). <i>Sensors and Actuators B: Chemical</i> , <b>2010</b> , 150, 425-435	8.5	17
8	Evaluation of a low cost wireless chemical sensor network for environmental monitoring <b>2008</b> ,		26
7	Chemical event tracking using a low-cost wireless chemical sensing network <b>2008</b> ,		2
6	Wearable technology for the real-time analysis of sweat during exercise <b>2008</b> ,		6
5	Monitoring chemical plumes in an environmental sensing chamber with a wireless chemical sensor network. <i>Sensors and Actuators B: Chemical</i> , <b>2007</b> , 121, 142-149	8.5	47
4	Sensor node localisation using a stereo camera rig <b>2007</b> ,		2
3	Microcosm: A Low Cost 3-D Wireless Sensor Test-Bed Within a Controllable Environment. <i>Lecture Notes in Computer Science</i> , <b>2006</b> , 820-834	0.9	

- 2 3D-Printed Wearable Electrochemical Energy Devices. *Advanced Functional Materials*, 2103092 15.6 9
- 1 Hollow-Fiber Melt Electrowriting Using a 3D-Printed Coaxial Nozzle. *Advanced Engineering Materials*, 2100750 9.5 1