David G Simpson

List of Publications by Citations

42 papers	8,664 citations	33 h-index	44 g-index
44 ext. papers	9,130 ext. citations	6.8 avg, IF	5.62 L-index

#	Paper	IF	Citations
42	Electrospinning of collagen nanofibers. *Biomacromolecules*, **2002**, 3, 232-8	6.9	1860
41	Release of tetracycline hydrochloride from electrospun poly(ethylene-co-vinylacetate), poly(lactic acid), and a blend. *Journal of Controlled Release*, **2002**, 81, 57-64	11.7	1085
40	Nanofiber technology: designing the next generation of tissue engineering scaffolds. *Advanced Drug Delivery Reviews*, **2007**, 59, 1413-33	18.5	899
39	Electrospinning of Nanofiber Fibrinogen Structures. *Nano Letters*, **2003**, 3, 213-216	11.5	474
38	Electrospinning collagen and elastin: preliminary vascular tissue engineering. *Frontiers in Bioscience - Landmark*, **2004**, 9, 1422-32	2.8	416
37	TAILORING TISSUE ENGINEERING SCAFFOLDS USING ELECTROSTATIC PROCESSING TECHNIQUES: A STUDY OF POLY(GLYCOLIC ACID) ELECTROSPINNING. *Journal of Macromolecular Science - Pure and Applied Chemistry*, **2001**, 38, 1231-1243	2.2	336
36	Electrospinning of poly(ethylene-co-vinyl alcohol) fibers. *Biomaterials*, **2003**, 24, 907-13	15.6	303
35	Electrospinning and Stabilization of Fully Hydrolyzed Poly(Vinyl Alcohol) Fibers. *Chemistry of Materials*, **2003**, 15, 1860-1864	9.6	281
34	Modulation of anisotropy in electrospun tissue-engineering scaffolds: Analysis of fiber alignment by the fast Fourier transform. *Biomaterials*, **2006**, 27, 5524-34	15.6	246
33	A three-layered electrospun matrix to mimic native arterial architecture using polycaprolactone, elastin, and collagen: a preliminary study. *Acta Biomaterialia*, **2010**, 6, 2422-33	10.8	225
32	Electrospinning polydioxanone for biomedical applications. *Acta Biomaterialia*, **2005**, 1, 115-23	10.8	225
31	Cross-linking electrospun type II collagen tissue engineering scaffolds with carbodiimide in ethanol. *Tissue Engineering*, **2007**, 13, 1593-605		204
30	Measuring fiber alignment in electrospun scaffolds: a user\x{2019}s guide to the 2D fast Fourier transform approach. *Journal of Biomaterials Science, Polymer Edition*, **2008**, 19, 603-21	3.5	202
29	Utilizing acid pretreatment and electrospinning to improve biocompatibility of poly(glycolic acid) for tissue engineering. *Journal of Biomedical Materials Research Part B*, **2004**, 71, 144-52		173
28	Two-Phase Electrospinning from a Single Electrified Jet:□Microencapsulation of Aqueous Reservoirs in Poly(ethylene-co-vinyl acetate) Fibers. *Macromolecules*, **2003**, 36, 3803-3805	5.5	160
27	Mechanical properties of electrospun fibrinogen structures. *Acta Biomaterialia*, **2006**, 2, 19-28	10.8	153
26	Two pole air gap electrospinning: Fabrication of highly aligned, three-dimensional scaffolds for nerve reconstruction. *Acta Biomaterialia*, **2011**, 7, 203-15	10.8	124

25	Electrospun fibrinogen: feasibility as a tissue engineering scaffold in a rat cell culture model. *Journal of Biomedical Materials Research - Part A*, **2007**, 81, 299-309	5.4	121
24	Suture-reinforced electrospun polydioxanone-elastin small-diameter tubes for use in vascular tissue engineering: a feasibility study. *Acta Biomaterialia*, **2008**, 4, 58-66	10.8	106
23	Tri-layered vascular grafts composed of polycaprolactone, elastin, collagen, and silk: Optimization of graft properties. *Journal of the Mechanical Behavior of Biomedical Materials*, **2012**, 10, 48-61	4.1	84
22	Cross-linking methods of electrospun fibrinogen scaffolds for tissue engineering applications. *Biomedical Materials (Bristol)*, **2008**, 3, 045001	3.5	83
21	Incorporating platelet-rich plasma into electrospun scaffolds for tissue engineering applications. *Tissue Engineering - Part A*, **2011**, 17, 2723-37	3.9	78
20	Science of nanofibrous scaffold fabrication: strategies for next generation tissue-engineering scaffolds. *Nanomedicine*, **2009**, 4, 193-206	5.6	76
19	Evaluating neuronal and glial growth on electrospun polarized matrices: bridging the gap in percussive spinal cord injuries. *Neuron Glia Biology*, **2007**, 3, 119-26		69
18	Nanotechnology in the design of soft tissue scaffolds: innovations in structure and function. *Wiley Interdisciplinary Reviews: Nanomedicine and Nanobiotechnology*, **2010**, 2, 20-34	9.2	67
17	The use of air-flow impedance to control fiber deposition patterns during electrospinning. *Biomaterials*, **2012**, 33, 771-9	15.6	63
16	Electrospun Collagen: A Tissue Engineering Scaffold with Unique Functional Properties in a Wide Variety of Applications. *Journal of Nanomaterials*, **2011**, 2011, 1-15	3.2	52
15	Incremental changes in anisotropy induce incremental changes in the material properties of electrospun scaffolds. *Acta Biomaterialia*, **2007**, 3, 651-61	10.8	49
14	Thermal and Mechanical Characterization of Electrospun Blends of Poly(lactic acid) and Poly(glycolic acid). *Polymer Journal*, **2006**, 38, 1137-1145	2.7	45
13	Gradient fiber electrospinning of layered scaffolds using controlled transitions in fiber diameter. *Biomaterials*, **2013**, 34, 4993-5006	15.6	43
12	Regulation of material properties in electrospun scaffolds: Role of cross-linking and fiber tertiary structure. *Acta Biomaterialia*, **2009**, 5, 518-29	10.8	43
11	Dermal templates and the wound-healing paradigm: the promise of tissue regeneration. *Expert Review of Medical Devices*, **2006**, 3, 471-84	3.5	34
10	The influence of platelet-rich plasma on myogenic differentiation. *Journal of Tissue Engineering and Regenerative Medicine*, **2016**, 10, E239-49	4.4	24
9	The incorporation of growth factor and chondroitinase ABC into an electrospun scaffold to promote axon regrowth following spinal cord injury. *Journal of Tissue Engineering and Regenerative Medicine*, **2016**, 10, 656-68	4.4	21
8	Feasibility of Electrospinning the Globular Proteins Hemoglobin and Myoglobin. *Journal of Engineered Fibers and Fabrics*, **2006**, 1, 155892500600100	0.9	15

7	Exploring the efficacy of cyclic vs static aspiration in a cerebral thrombectomy model: an initial proof of concept study. *Journal of NeuroInterventional Surgery*, **2014**, 6, 677-83	7.8	12
6	Evaluation of biological activity of bone morphogenetic proteins on exposure to commonly used electrospinning solvents. *Journal of Bioactive and Compatible Polymers*, **2011**, 26, 578-589	2	10
5	Electrospun nitrocellulose and nylon: design and fabrication of novel high performance platforms for protein blotting applications. *Journal of Biological Engineering*, **2007**, 1, 2	6.3	8
4	Electrospun Fibrinogen-Polydioxanone Composite Matrix: Potential for in Situ Urologic Tissue Engineering. *Journal of Engineered Fibers and Fabrics*, **2008**, 3, 155892500800300	0.9	5
3	Electrospun Polydioxanone, Elastin, and Collagen Vascular Scaffolds: Uniaxial Cyclic Distension. *Journal of Engineered Fibers and Fabrics*, **2009**, 4, 155892500900400	0.9	3
2	Tri-layered electrospinning to mimic native arterial architecture using polycaprolactone, elastin, and collagen: a preliminary study. *Journal of Visualized Experiments*, **2011**,	1.6	1
1	Frontal Cryosectioning: An Improved Protocol for Sectioning Large Areas of Fibrous Scaffolds. *Journal of Nanomaterials*, **2015**, 2015, 1-7	3.2	