David Nisbet

List of Publications by Year
in descending order

110 papers	4,753 citations	71102 41 h-index	106344 65 g-index
120 all docs	120 docs citations	120 times ranked	6286 citing authors

#	Article	IF	Citations
1	Review Paper: A Review of the Cellular Response on Electrospun Nanofibers for Tissue Engineering. Journal of Biomaterials Applications, 2009, 24, 7-29.	2.4	264
2	Bioinspired surface modification of orthopedic implants for bone tissue engineering. Biomaterials, 2019, 219, 119366.	11.4	204
3	Ultra-Durable and Transparent Self-Cleaning Surfaces by Large-Scale Self-Assembly of Hierarchical Interpenetrated Polymer Networks. ACS Applied Materials & Interfaces, 2016, 8, 13615-13623.	8.0	179
4	Three-Dimensional Nanofibrous Scaffolds Incorporating Immobilized BDNF Promote Proliferation and Differentiation of Cortical Neural Stem Cells. Stem Cells and Development, 2010, 19, 843-852.	2.1	158
5	Neural tissue engineering of the CNS using hydrogels. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2008, 87B, 251-263.	3.4	145
6	Neurite infiltration and cellular response to electrospun polycaprolactone scaffolds implanted into the brain. Biomaterials, 2009, 30, 4573-4580.	11.4	140
7	Stability of ZIF-8 nanopowders in bacterial culture media and its implication for antibacterial properties. Chemical Engineering Journal, 2021, 413, 127511.	12.7	137
8	Controlling initial biodegradation of magnesium by a biocompatible strontium phosphate conversion coating. Acta Biomaterialia, 2014, 10, 1463-1474.	8.3	135
9	Mimosa Origami: A nanostructure-enabled directional self-organization regime of materials. Science Advances, 2016, 2, e1600417.	10.3	108
10	Characterization of neural stem cells on electrospun poly(Îµ-caprolactone) submicron scaffolds: evaluating their potential in neural tissue engineering. Journal of Biomaterials Science, Polymer Edition, 2008, 19, 623-634.	3.5	106
11	Biomaterials for Brain Tissue Engineering. Australian Journal of Chemistry, 2010, 63, 1143.	0.9	99
12	Interaction of embryonic cortical neurons on nanofibrous scaffolds for neural tissue engineering. Journal of Neural Engineering, 2007, 4, 35-41.	3.5	96
13	Performance-driven design of Biocompatible Mg alloys. Jom, 2011, 63, 28-34.	1.9	96
14	Functionalized composite scaffolds improve the engraftment of transplanted dopaminergic progenitors in a mouse model of Parkinson's disease. Biomaterials, 2016, 74, 89-98.	11.4	89
15	Peptide-Based Scaffolds Support Human Cortical Progenitor Graft Integration to Reduce Atrophy and Promote Functional Repair in a Model of Stroke. Cell Reports, 2017, 20, 1964-1977.	6.4	88
16	Promoting engraftment of transplanted neural stem cells/progenitors using biofunctionalised electrospun scaffolds. Biomaterials, 2012, 33, 9188-9197.	11.4	87
17	Method to Impart Electro- and Biofunctionality to Neural Scaffolds Using Grapheneâ€“Polyelectrolyte Multilayers. ACS Applied Materials & Interfaces, 2012, 4, 4524-4531.	8.0	80
18	In vivo assessment of grafted cortical neural progenitor cells and host response to functionalized self-assembling peptide hydrogels and the implications for tissue repair. Journal of Materials Chemistry B, 2014, 2, 7771-7778.	5.8	71

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19	Morphology and gelation of thermosensitive xyloglucan hydrogels. Biophysical Chemistry, 2006, 121, 14-20.	2.8	67
20	Mitochondrial DNA Haplotypes Define Gene Expression Patterns in Pluripotent and Differentiating Embryonic Stem Cells. Stem Cells, 2013, 31, 703-716.	3.2	65
21	Tuning the amino acid sequence of minimalist peptides to present biological signals via charge neutralised self assembly. Soft Matter, 2013, 9, 3915.	2.7	60
22	Interleukin-10 conjugated electrospun polycaprolactone (PCL) nanofibre scaffolds for promoting alternatively activated (M2) macrophages around the peripheral nerve in vivo. Journal of Immunological Methods, 2015, 420, 38-49.	1.4	60
23	Engineering Highly Interconnected Neuronal Networks on Nanowire Scaffolds. Nano Letters, 2017, 17, 3369-3375.	9.1	58
24	Specific control of cellâ€“material interactions: Targeting cell receptors using ligand-functionalized polymer substrates. Progress in Polymer Science, 2014, 39, 1312-1347.	24.7	57
25	Tuning the mechanical and morphological properties of self-assembled peptide hydrogels via control over the gelation mechanism through regulation of ionic strength and the rate of pH change. RSC Advances, 2015, 5, 301-307.	3.6	56
26	Characterisation of minimalist co-assembled fluorenylmethyloxycarbonyl self-assembling peptide systems for presentation of multiple bioactive peptides. Acta Biomaterialia, 2016, 38, 11-22.	8.3	56
27	Scission of electrospun polymer fibres by ultrasonication. Polymer, 2013, 54, 4237-4252.	3.8	54
28	Dynamic and Responsive Growth Factor Delivery from Electrospun and Hydrogel Tissue Engineering Materials. Advanced Healthcare Materials, 2018, 7, 1700836.	7.6	54
29	Green Full Conversion of ZnO Nanopowders to Well-Dispersed Zeolitic Imidazolate Framework-8 (ZIF-8) Nanopowders via a Stoichiometric Mechanochemical Reaction for Fast Dye Adsorption. Crystal Growth and Design, 2020, 20, 2761-2773.	3.0	54
30	Colonization and maintenance of murine embryonic stem cells on poly(Î±-hydroxy esters). Biomaterials, 2004, 25, 4963-4970.	11.4	52
31	Rheological properties of high melt strength poly(ethylene terephthalate) formed by reactive extrusion. Journal of Applied Polymer Science, 2006, 100, 3646-3652.	2.6	52
32	Enhancing neurite outgrowth from primary neurones and neural stem cells using thermoresponsive hydrogel scaffolds for the repair of spinal cord injury. Journal of Biomedical Materials Research - Part A, 2009, 89A, 24-35.	4.0	49
33	Automated Fourier space region-recognition filtering for off-axis digital holographic microscopy. Biomedical Optics Express, 2016, 7, 3111.	2.9	49
34	An Outlook of Recent Advances in Chemiresistive Sensor-Based Electronic Nose Systems for Food Quality and Environmental Monitoring. Sensors, 2021, 21, 2271.	3.8	48
35	3D Electrospun scaffolds promote a cytotrophic phenotype of cultured primary astrocytes. Journal of Neurochemistry, 2014, 130, 215-226.	3.9	47
36	Cytotoxic T cells swarm by homotypic chemokine signalling. ELife, 2020, 9, .	6.0	46

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37	Implantation of Functionalized Thermally Gelling Xyloglucan Hydrogel Within the Brain: Associated Neurite Infiltration and Inflammatory Response. Tissue Engineering - Part A, 2010, 16, 2833-2842.	3.1	45
38	Self-Assembled Peptides: Characterisation and In Vivo Response. Biointerphases, 2012, 7, 2.	1.6	45
39	Using minimalist selfâ€assembling peptides as hierarchical scaffolds to stabilise growth factors and promote stem cell integration in the injured brain. Journal of Tissue Engineering and Regenerative Medicine, 2018, 12, e1571-e1579.	2.7	44
40	The influence of biodegradable magnesium alloys on the osteogenic differentiation of human mesenchymal stem cells. Journal of Biomedical Materials Research - Part A, 2014, 102, n/a-n/a.	4.0	42
41	Biofunctionalisation of polymeric scaffolds for neural tissue engineering. Journal of Biomaterials Applications, 2012, 27, 369-390.	2.4	41
42	In vitro response to functionalized selfâ€assembled peptide scaffolds for threeâ€dimensional cell culture. Biopolymers, 2014, 102, 197-205.	2.4	41
43	Tailoring minimalist self-assembling peptides for localized viral vector gene delivery. Nano Research, 2016, 9, 674-684.	10.4	41
44	Surface and bulk characterisation of electrospun membranes: Problems and improvements. Colloids and Surfaces B: Biointerfaces, 2009, 71, 1-12.	5.0	39
45	Coassembled nanostructured bioscaffold reduces the expression of proinflammatory cytokines to induce apoptosis in epithelial cancer cells. Nanomedicine: Nanotechnology, Biology, and Medicine, 2016, 12, 1397-1407.	3.3	39
46	Temporally controlled release of multiple growth factors from a self-assembling peptide hydrogel. Nanotechnology, 2016, 27, 385102.	2.6	38
47	Temporally controlled growth factor delivery from a self-assembling peptide hydrogel and electrospun nanofibre composite scaffold. Nanoscale, 2017, 9, 13661-13669.	5.6	37
48	Engineering of Chitosan-Hydroxyapatite-Magnetite Hierarchical Scaffolds for Guided Bone Growth. Materials, 2019, 12, 2321.	2.9	37
49	Hierarchical amorphous nanofibers for transparent inherently super-hydrophilic coatings. Journal of Materials Chemistry A, 2014, 2, 15575-15581.	10.3	36
50	Harnessing stem cells and biomaterials to promote neural repair. British Journal of Pharmacology, 2019, 176, 355-368.	5.4	34
51	Is Viral Vector Gene Delivery More Effective Using Biomaterials?. Advanced Healthcare Materials, 2021, 10, e2001238.	7.6	34
52	Traction of 3D and 4D Printing in the Healthcare Industry: From Drug Delivery and Analysis to Regenerative Medicine. ACS Biomaterials Science and Engineering, 2022, 8, 2764-2797.	5.2	34
53	Biomimetic Materials and Their Utility in Modeling the 3-Dimensional Neural Environment. IScience, 2020, 23, 100788.	4.1	33
54	A Programmed Antiâ€Inflammatory Nanoscaffold (PAIN) as a 3D Tool to Understand the Brain Injury Response. Advanced Materials, 2018, 30, e1805209.	21.0	32

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55	Flexible Transparent Hierarchical Nanomesh for Rose Petalâ€Like Droplet Manipulation and Lossless Transfer. Advanced Materials Interfaces, 2015, 2, 1500071.	3.7	31
56	Surface grafting of electrospun fibers using ATRP and RAFT for the control of biointerfacial interactions. Biointerphases, 2013, 8, 16.	1.6	30
57	Characterization of the Stability and Bio-functionality of Tethered Proteins on Bioengineered Scaffolds. Journal of Biological Chemistry, 2014, 289, 15044-15051.	3.4	29
58	In vitro evaluation of biodegradable magnesium alloys containing micro-alloying additions of strontium, with and without zinc. Journal of Materials Chemistry B, 2015, 3, 8874-8883.	5.8	29
59	Peptide Programmed Hydrogels as Safe Sanctuary Microenvironments for Cell Transplantation. Advanced Functional Materials, 2020, 30, 1900390.	14.9	29
60	Shear Containment of BDNF within Molecular Hydrogels Promotes Human Stem Cell Engraftment and Postinfarction Remodeling in Stroke. Advanced Biology, 2018, 2, 1800113.	3.0	28
61	Integrating Biomaterials and Stem Cells for Neural Regeneration. Stem Cells and Development, 2016, 25, 214-226.	2.1	26
62	Reducing Astrocytic Scarring after Traumatic Brain Injury with a Multifaceted Anti-Inflammatory Hydrogel System. ACS Biomaterials Science and Engineering, 2017, 3, 2542-2549.	5.2	26
63	Large and Small Assembly: Combining Functional Macromolecules with Small Peptides to Control the Morphology of Skeletal Muscle Progenitor Cells. Biomacromolecules, 2018, 19, 825-837.	5.4	26
64	Scaffolds Formed via the Non-Equilibrium Supramolecular Assembly of the Synergistic ECM Peptides RGD and PHSRN Demonstrate Improved Cell Attachment in 3D. Polymers, 2018, 10, 690.	4.5	25
65	A study of the initial film growth of PEG-like plasma polymer films via XPS and NEXAFS. Applied Surface Science, 2014, 288, 288-294.	6.1	24
66	Review: Biomaterial systems to resolve brain inflammation after traumatic injury. APL Bioengineering, 2018, 2, 021502.	6.2	24
67	The effect of surface hydrophilicity on the behavior of embryonic cortical neurons. Journal of Colloid and Interface Science, 2006, 299, 647-655.	9.4	23
68	Ultra-Porous Nanoparticle Networks: A Biomimetic Coating Morphology for Enhanced Cellular Response and Infiltration. Scientific Reports, 2016, 6, 24305.	3.3	23
69	Facile Control over the Supramolecular Ordering of Self-assembled Peptide Scaffolds by Simultaneous Assembly with a Polysacharride. Scientific Reports, 2017, 7, 4797.	3.3	23
70	Vertically configured nanostructure-mediated electroporation: a promising route for intracellular regulations and interrogations. Materials Horizons, 2020, 7, 2810-2831.	12.2	22
71	Optimally Hierarchical Nanostructured Hydroxyapatite Coatings for Superior Prosthesis Biointegration. ACS Applied Materials & Interfaces, 2018, 10, 24840-24849.	8.0	20
72	Tuneable Hybrid Hydrogels via Complementary Self-Assembly of a Bioactive Peptide with a Robust Polysaccharide. ACS Biomaterials Science and Engineering, 2021, 7, 3340-3350.	5.2	20

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73	Transcriptomic analysis and 3D bioengineering of astrocytes indicate ROCK inhibition produces cytotrophic astrogliosis. Frontiers in Neuroscience, 2015, 9, 50.	2.8	19
74	Low Fouling Electrospun Scaffolds with Clicked Bioactive Peptides for Specific Cell Attachment. Biomacromolecules, 2015, 16, 2109-2118.	5.4	18
75	Optimizing interfacial features to regulate neural progenitor cells using polyelectrolyte multilayers and brain derived neurotrophic factor. Biointerphases, 2011, 6, 189-199.	1.6	17
76	Harnessing the self-assembly of peptides for the targeted delivery of anti-cancer agents. Materials Horizons, 2020, 7, 1996-2010.	12.2	17
77	Tuning the selectivity of highly sensitive chemiresistive nanoparticle networks by encapsulation with metalâ€“organic frameworks. Journal of Materials Chemistry C, 2021, 9, 17331-17340.	5.5	17
78	Bioprinting and Biofabrication with Peptide and Protein Biomaterials. Advances in Experimental Medicine and Biology, 2017, 1030, 95-129.	1.6	16
79	Peptide Hydrogel Scaffold for Mesenchymal Precursor Cells Implanted to Injured Adult Rat Spinal Cord. Tissue Engineering - Part A, 2021, 27, 993-1007.	3.1	16
80	Tissue Programmed Hydrogels Functionalized with GDNF Improve Human Neural Grafts in Parkinson's Disease. Advanced Functional Materials, 2021, 31, 2105301.	14.9	16
81	Hydrogelâ€Immobilized Supercharged Proteins. Advanced Biology, 2018, 2, 1700240.	3.0	14
82	Optimization of Aqueous SIâ€ATRP Grafting of Poly(Oligo(Ethylene Glycol) Methacrylate) Brushes from Benzyl Chloride Macroinitiator Surfaces. Macromolecular Bioscience, 2015, 15, 799-811.	4.1	13
83	The effect of a superhydrophobic coating on moisture absorption and tensile strength of 3D-printed carbon-fibre/polyamide. Composites Part A: Applied Science and Manufacturing, 2021, 145, 106380.	7.6	13
84	Controlling integrin-based adhesion to a degradable electrospun fibre scaffold via SI-ATRP. Journal of Materials Chemistry B, 2016, 4, 7314-7322.	5.8	12
85	Galactose-functionalised PCL nanofibre scaffolds to attenuate inflammatory action of astrocytes in vitro and in vivo. Journal of Materials Chemistry B, 2017, 5, 4073-4083.	5.8	12
86	Effect of phyto-fabricated nanoscale organic-iron complex on photo-fermentative hydrogen production by Rhodopseudomonas palustris MP2 and Rhodopseudomonas palustris MP4. Biomass and Bioenergy, 2020, 140, 105667.	5.7	12
87	Enhancing Peptide Biomaterials for Biofabrication. Polymers, 2021, 13, 2590.	4.5	11
88	When Less Gold is More: Selective Attomolar Biosensing at the Nanoscale. Advanced Functional Materials, 2022, 32, .	14.9	11
89	Non-oxidized cellulose nanofibers as a topical hemostat: In vitro thromboelastometry studies of structure vs function. Carbohydrate Polymers, 2021, 265, 118043.	10.2	10
90	Replace and repair: Biomimetic bioprinting for effective muscle engineering. APL Bioengineering, 2021, 5, 031502.	6.2	9

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91	Changing Fate: Reprogramming Cells via Engineered Nanoscale Delivery Materials. Advanced Materials, 2022, 34, e2108757.	21.0	9
92	Deletion of the Complex I Subunit NDUFS4 Adversely Modulates Cellular Differentiation. Stem Cells and Development, 2016, 25, 239-250.	2.1	8
93	A Commentary on the Need for 3D-Biologically Relevant In Vitro Environments to Investigate Astrocytes and Their Role in Central Nervous System Inflammation. Neurochemical Research, 2016, 41, 589-592.	3.3	8
94	Using UV-Responsive Nanoparticles to Provide <i>In Situ</i> Control of Growth Factor Delivery and a More Constant Release Profile from a Hydrogel Environment. ACS Applied Materials & Interfaces, 2022, 14, 12068-12076.	8.0	7
95	The Potential of Stem Cells and Tissue Engineered Scaffolds for Repair of the Central Nervous System. , 2012, , 97-111.		6
96	Engineering Fractal Photonic Metamaterials by Stochastic Selfâ€Assembly of Nanoparticles. Advanced Photonics Research, 2021, 2, 2100020.	3.6	6
97	Extracellular Matrix Biomimetic Hydrogels, Encapsulated with Stromal Cell-Derived Factor 1, Improve the Composition of Foetal Tissue Grafts in a Rodent Model of Parkinsonâ€™s Disease. International Journal of Molecular Sciences, 2022, 23, 4646.	4.1	6
98	Shining a light on the hidden structure of gelatin methacryloyl bioinks using small-angle X-ray scattering (SAXS). Materials Chemistry Frontiers, 2021, 5, 8025-8036.	5.9	5
99	Synthetic Multi-level Matrices for Bone Regeneration. , 2011, , 99-122.		5
100	Shielding Surfaces from Viruses and Bacteria with a Multiscale Coating. Advanced Science, 2022, 9, .	11.2	4
101	Bio-nanotechnology Approaches to Neural Tissue Engineering. , 2010, , .		3
102	Biodesigned bioinks for 3D printing via divalent crosslinking of self-assembled peptide-polysaccharide hybrids. Materials Today Advances, 2022, 14, 100243.	5.2	3
103	Self-Assembled Peptide Nanostructures for the Fabrication of Cell Scaffolds. , 2015, , 33-61.		2
104	Hybrid Selfâ€Assembling Peptide/Gelatin Methacrylate (GelMA) Bioink Blend for Improved Bioprintability and Primary Myoblast Response. Advanced NanoBiomed Research, 0, , 2100106.	3.6	2
105	Tissue Engineering of Organs: Brain Tissues. , 2011, , 457-492.		1
106	Harnessing stem cells and biomaterials to promote neural repair. British Journal of Pharmacology, 2019, 176, 355-368.	5.4	1
107	Self-Assembled Peptide Habitats to Model Tumor Metastasis. Gels, 2022, 8, 332.	4.5	1
108	Adaptive spatial filtering for off-axis digital holographic microscopy based on region recognition approach with iterative thresholding. , 2016, , .		0

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109	Probing the Interfacial Structure of Bilayer Plasma Polymer Films via Neutron Reflectometry. Plasma Processes and Polymers, 2016, 13, 534-543.	3.0	0
110	A Hydrogel as a Bespoke Delivery Platform for Stromal Cell-Derived Factor-1. Gels, 2022, 8, 224.	4.5	0