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List of Publications by Year
in descending order

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62 papers	2,827 citations	218381 26 h-index	174990 52 g-index
63 all docs	63 docs citations	63 times ranked	3983 citing authors

#	Article	IF	Citations
1	A protocol for rheological characterization of hydrogels for tissue engineering strategies. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2014, 102, 1063-1073.	1.6	277
2	Varying the diameter of aligned electrospun fibers alters neurite outgrowth and Schwann cell migration. Acta Biomaterialia, 2010, 6, 2970-2978.	4.1	266
3	Creation of highly aligned electrospun poly-L-lactic acid fibers for nerve regeneration applications. Journal of Neural Engineering, 2009, 6, 016001.	1.8	254
4	Robust CNS regeneration after complete spinal cord transection using aligned poly-l-lactic acid microfibers. Biomaterials, 2011, 32, 6068-6079.	5.7	219
5	Robust neurite extension following exogenous electrical stimulation within single walled carbon nanotube-composite hydrogels. Acta Biomaterialia, 2016, 39, 34-43.	4.1	115
6	Simple Agaroseâˆ’Chitosan Gel Composite System for Enhanced Neuronal Growth in Three Dimensions. Biomacromolecules, 2009, 10, 2954-2959.	2.6	97
7	Fabrication and characterization of tunable polysaccharide hydrogel blends for neural repair. Acta Biomaterialia, 2011, 7, 1634-1643.	4.1	85
8	Enhanced GLT-1 mediated glutamate uptake and migration of primary astrocytes directed by fibronectin-coated electrospun poly-l-lactic acid fibers. Biomaterials, 2014, 35, 1439-1449.	5.7	85
9	Injectable, Magnetically Orienting Electrospun Fiber Conduits for Neuron Guidance. ACS Applied Materials & Interfaces, 2019, 11, 356-372.	4.0	79
10	Electrospun Fibers for Spinal Cord Injury Research and Regeneration. Journal of Neurotrauma, 2016, 33, 1405-1415.	1.7	78
11	Biomaterials for Local, Controlled Drug Delivery to the Injured Spinal Cord. Frontiers in Pharmacology, 2017, 8, 245.	1.6	78
12	Agarose and methylcellulose hydrogel blends for nerve regeneration applications. Journal of Neural Engineering, 2008, 5, 221-231.	1.8	77
13	An Injectable, Calcium Responsive Composite Hydrogel for the Treatment of Acute Spinal Cord Injury. ACS Applied Materials & Interfaces, 2014, 6, 1424-1438.	4.0	52
14	Cell infiltration into a 3D electrospun fiber and hydrogel hybrid scaffold implanted in the brain. Biomatter, 2015, 5, e1005527.	2.6	51
15	Magnetic NGF-Releasing PLLA/Iron Oxide Nanoparticles Direct Extending Neurites and Preferentially Guide Neurites along Aligned Electrospun Microfibers. ACS Chemical Neuroscience, 2015, 6, 1781-1788.	1.7	48
16	Engineered Nanotopography on Electrospun PLLA Microfibers Modifies RAW 264.7 Cell Response. ACS Applied Materials & Interfaces, 2013, 5, 10173-10184.	4.0	47
17	Astrocytes Increase ATP Exocytosis Mediated Calcium Signaling in Response to Microgroove Structures. Scientific Reports, 2015, 5, 7847.	1.6	45
18	Electrospun Fibers for Drug Delivery after Spinal Cord Injury and the Effects of Drug Incorporation on Fiber Properties. Cells Tissues Organs, 2016, 202, 116-135.	1.3	43

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19	Extracellular Matrixâ€Mimetic Hydrogels for Treating Neural Tissue Injury: A Focus on Fibrin, Hyaluronic Acid, and Elastinâ€Like Polypeptide Hydrogels. Advanced Healthcare Materials, 2021, 10, e2101329.	3.9	41
20	Challenges of gene delivery to the central nervous system and the growing use of biomaterial vectors. Brain Research Bulletin, 2019, 150, 216-230.	1.4	37
21	Evaluation of Multifunctional Polysaccharide Hydrogels with Varying Stiffness for Bone Tissue Engineering. Tissue Engineering - Part A, 2013, 19, 2452-2463.	1.6	36
22	The Effect of Surface Modification of Aligned Poly-L-Lactic Acid Electrospun Fibers on Fiber Degradation and Neurite Extension. PLoS ONE, 2015, 10, e0136780.	1.1	36
23	Controlled release of 6-aminonicotinamide from aligned, electrospun fibers alters astrocyte metabolism and dorsal root ganglia neurite outgrowth. Journal of Neural Engineering, 2011, 8, 046026.	1.8	35
24	Biomaterial Approaches to Modulate Reactive Astroglial Response. Cells Tissues Organs, 2018, 205, 372-395.	1.3	34
25	Exploring the effects of electrospun fiber surface nanotopography on neurite outgrowth and branching in neuron cultures. PLoS ONE, 2019, 14, e0211731.	1.1	30
26	Controlled Anchoring of Iron Oxide Nanoparticles on Polymeric Nanofibers: Easy Access to Core@Shell Organicâ€“Inorganic Nanocomposites for Magneto-Scaffolds. ACS Applied Materials & Interfaces, 2019, 11, 9519-9529.	4.0	29
27	Assessing the combination of magnetic field stimulation, iron oxide nanoparticles, and aligned electrospun fibers for promoting neurite outgrowth from dorsal root ganglia in vitro. Acta Biomaterialia, 2021, 131, 302-313.	4.1	29
28	Biomaterial Design Considerations for Repairing the Injured Spinal Cord. Critical Reviews in Biomedical Engineering, 2011, 39, 125-180.	0.5	28
29	Magnetic Composite Biomaterials for Neural Regeneration. Frontiers in Bioengineering and Biotechnology, 2019, 7, 179.	2.0	26
30	Electrospun Fiber Scaffolds for Engineering Glial Cell Behavior to Promote Neural Regeneration. Bioengineering, 2021, 8, 4.	1.6	26
31	Electrospun fiber surface nanotopography influences astrocyte-mediated neurite outgrowth. Biomedical Materials (Bristol), 2018, 13, 054101.	1.7	25
32	Solvent Retention in Electrospun Fibers Affects Scaffold Mechanical Properties. Electrospinning, 2018, 2, 15-28.	1.6	24
33	TGFÎ²3 is neuroprotective and alleviates the neurotoxic response induced by aligned poly-l-lactic acid fibers on naÃ¯ve and activated primary astrocytes. Acta Biomaterialia, 2020, 117, 273-282.	4.1	24
34	Bone Marrow-Derived and Elicited Peritoneal Macrophages Are Not Created Equal: The Questions Asked Dictate the Cell Type Used. Frontiers in Immunology, 2020, 11, 269.	2.2	23
35	Vastly extended drug release from poly(pro-17Î²-estradiol) materials facilitates in vitro neurotrophism and neuroprotection. Nature Communications, 2019, 10, 4830.	5.8	22
36	Nebulized solvent ablation of aligned PLLA fibers for the study of neurite response to anisotropic-to-isotropic fiber/film transition (AFFT) boundaries in astrocyteâ€“neuron co-cultures. Biomaterials, 2015, 46, 82-94.	5.7	21

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37	The Effect of Electrospun Fiber Diameter on Astrocyte-Mediated Neurite Guidance and Protection. ACS Applied Bio Materials, 2019, 2, 104-117.	2.3	21
38	Designing electrospun fiber platforms for efficient delivery of genetic material and genome editing tools. Advanced Drug Delivery Reviews, 2022, 183, 114161.	6.6	21
39	Evaluation of procedures to quantify solvent retention in electrospun fibers and facilitate solvent removal. Fibers and Polymers, 2017, 18, 483-492.	1.1	20
40	Coating Topologically Complex Electrospun Fibers with Nanothin Silk Fibroin Enhances Neurite Outgrowth in Vitro. ACS Biomaterials Science and Engineering, 2020, 6, 1321-1332.	2.6	20
41	Automated Methods to Determine Electrospun Fiber Alignment and Diameter Using the Radon Transform. BioNanoScience, 2013, 3, 329-342.	1.5	19
42	The effect of engineered nanotopography of electrospun microfibers on fiber rigidity and macrophage cytokine production. Journal of Biomaterials Science, Polymer Edition, 2017, 28, 1303-1323.	1.9	19
43	A Rapid, Quantitative Method for Assessing Axonal Extension on Biomaterial Platforms. Tissue Engineering - Part C: Methods, 2010, 16, 167-172.	1.1	18
44	Formulation of benzoxaborole drugs in PLLA: from materials preparation to in vitro release kinetics and cellular assays. Journal of Materials Chemistry B, 2016, 4, 257-272.	2.9	17
45	Removal of retained electrospinning solvent prolongs drug release from electrospun PLLA fibers. Polymer, 2017, 123, 121-127.	1.8	17
46	Matrix compliance and the regulation of cytokinesis. Biology Open, 2015, 4, 885-892.	0.6	14
47	Multi-modal characterization of polymeric gels to determine the influence of testing method on observed elastic modulus. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 92, 152-161.	1.5	14
48	Reduced Astrocyte Viability at Physiological Temperatures from Magnetically Activated Iron Oxide Nanoparticles. Chemical Research in Toxicology, 2014, 27, 2023-2035.	1.7	13
49	Specific Nanoporous Geometries on Anodized Alumina Surfaces Influence Astrocyte Adhesion and Glial Fibrillary Acidic Protein Immunoreactivity Levels. ACS Biomaterials Science and Engineering, 2018, 4, 128-141.	2.6	13
50	Poly-<scp>l</scp>-lactic acid-<i>co</i>-poly(pentadecalactone) Electrospun Fibers Result in Greater Neurite Outgrowth of Chick Dorsal Root Ganglia in Vitro Compared to Poly-<scp>l</scp>-lactic Acid Fibers. ACS Biomaterials Science and Engineering, 2018, 4, 1491-1497.	2.6	12
51	Stabilized Interleukin-4-Loaded Poly(lactic-<i>co</i>-glycolic) Acid Films Shift Proinflammatory Macrophages toward a Regenerative Phenotype <i>in Vitro</i>. ACS Applied Bio Materials, 2019, 2, 1498-1508.	2.3	11
52	A biomaterial model of tumor stromal microenvironment promotes mesenchymal morphology but not epithelial to mesenchymal transition in epithelial cells. Acta Biomaterialia, 2014, 10, 4811-4821.	4.1	10
53	Aligned Fingolimod-Releasing Electrospun Fibers Increase Dorsal Root Ganglia Neurite Extension and Decrease Schwann Cell Expression of Promyelinating Factors. Frontiers in Bioengineering and Biotechnology, 2020, 8, 937.	2.0	10
54	Biomaterial strategies for creating inÂvitro astrocyte cultures resembling inÂvivo astrocyte morphologies and phenotypes. Current Opinion in Biomedical Engineering, 2020, 14, 67-74.	1.8	7

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55	Sophorolipid Butyl Ester Diacetate Does Not Affect Macrophage Polarization but Enhances Astrocytic Glial Fibrillary Acidic Protein Expression at Micromolar Concentrations in Vitro. ACS Chemical Neuroscience, 2017, 8, 752-758.	1.7	6
56	Lactonic Sophorolipid Increases Surface Wettability of Poly-<scp>l</scp>-lactic Acid Electrospun Fibers. ACS Applied Bio Materials, 2019, 2, 3153-3158.	2.3	6
57	Conventional immunomarkers stain a fraction of astrocytes <i>in vitro</i>: A comparison of rat cortical and spinal cord astrocytes in naÃ¯ve and stimulated cultures. Journal of Neuroscience Research, 2021, 99, 806-826.	1.3	5
58	Electrospun fiber alignment using the radon transform. , 2011, , .		4
59	Design of hydrogel biomaterial interfaces for the injured spinal cord. Surface Innovations, 2014, 2, 26-46.	1.4	2
60	Advances in the use of electrospun fibers for the central nervous system. , 2018, , 377-398.		2
61	Acute Dose-Dependent Neuroprotective Effects of Poly(pro-17Î²-estradiol) in a Mouse Model of Spinal Contusion Injury. ACS Chemical Neuroscience, 2021, 12, 959-965.	1.7	2
62	Multivariate analysis reveals topography dependent relationships amongst neurite morphological features from dorsal root ganglia neurons. Journal of Neural Engineering, 2022, , .	1.8	1