Jennie B Leach

List of Publications by Year
in descending order

33 papers	2,641 citations	331670 21 h-index	454955 30 g-index
36 all docs	36 docs citations	36 times ranked	3933 citing authors

#	Article	IF	Citations
1	Hydrolytically Degradable Poly(Ethylene Glycol) Hydrogel Scaffolds with Tunable Degradation and Mechanical Properties. Biomacromolecules, 2010, 11, 1348-1357.	5.4	417
2	Characterization of protein release from photocrosslinkable hyaluronic acid-polyethylene glycol hydrogel tissue engineering scaffolds. Biomaterials, 2005, 26, 125-135.	11.4	393
3	Balance of chemistry, topography, and mechanics at the cellâ€“biomaterial interface: Issues and challenges for assessing the role of substrate mechanics on cell response. Surface Science, 2004, 570, 119-133.	1.9	276
4	Microglial Depletion with CSF1R Inhibitor During Chronic Phase of Experimental Traumatic Brain Injury Reduces Neurodegeneration and Neurological Deficits. Journal of Neuroscience, 2020, 40, 2960-2974.	3.6	193
5	Neurite outgrowth and branching of PC12 cells on very soft substrates sharply decreases below a threshold of substrate rigidity. Journal of Neural Engineering, 2007, 4, 26-34.	3.5	183
6	Development of photocrosslinkable hyaluronic acid-polyethylene glycol-peptide composite hydrogels for soft tissue engineering. Journal of Biomedical Materials Research Part B, 2004, 70A, 74-82.	3.1	131
7	Characterization of protein release from hydrolytically degradable poly(ethylene glycol) hydrogels. Biotechnology and Bioengineering, 2011, 108, 197-206.	3.3	112
8	Crosslinked Î±-elastin biomaterials: towards a processable elastin mimetic scaffold. Acta Biomaterialia, 2005, 1, 155-164.	8.3	111
9	Solute diffusion and interactions in cross-linked poly(ethylene glycol) hydrogels studied by Fluorescence Correlation Spectroscopy. Soft Matter, 2010, 6, 3609.	2.7	111
10	Bridging the divide between neuroprosthetic design, tissue engineering and neurobiology. Frontiers in Neuroengineering, 2010, 2, 18.	4.8	92
11	Fluorescent microparticles for sensing cell microenvironment oxygen levels within 3D scaffolds. Biomaterials, 2009, 30, 3068-3074.	11.4	72
12	Influence of cell-adhesive peptide ligands on poly(ethylene glycol) hydrogel physical, mechanical and transport properties. Acta Biomaterialia, 2010, 6, 3404-3414.	8.3	68
13	Synthesis and Characterization of Carboxymethylcellulose-Methacrylate Hydrogel Cell Scaffolds. Polymers, 2010, 2, 252-264.	4.5	66
14	Proteinâ€“Hydrogel Interactions in Tissue Engineering: Mechanisms and Applications. Tissue Engineering - Part B: Reviews, 2013, 19, 160-171.	4.8	66
15	Visualization of Flow-Aligned Type I Collagen Self-Assembly in Tunable pH Gradients. Langmuir, 2007, 23, 357-359.	3.5	54
16	Hydrolytically degradable poly(ethylene glycol) hydrogel scaffolds as a cell delivery vehicle: Characterization of PC12 cell response. Biotechnology Progress, 2013, 29, 1255-1264.	2.6	41
17	Three-Dimensional Environment Sustains Morphological Heterogeneity and Promotes Phenotypic Progression During Astrocyte Development. Tissue Engineering - Part A, 2016, 22, 885-898.	3.1	39
18	Direct, Real-Time Detection of Adenosine Triphosphate Release from Astrocytes in Three-Dimensional Culture Using an Integrated Electrochemical Aptamer-Based Sensor. ACS Chemical Neuroscience, 2019, 10, 2070-2079.	3.5	38

#	Article	IF	Citations
19	Substrate Three-Dimensionality Induces Elemental Morphological Transformation of Sensory Neurons on a Physiologic Timescale. Tissue Engineering - Part A, 2012, 18, 93-102.	3.1	35
20	Spatially monitoring oxygen level in 3D microfabricated cell culture systems using optical oxygen sensing beads. Lab on A Chip, 2013, 13, 1586.	6.0	32
21	Protein folding and assembly in confined environments: Implications for protein aggregation in hydrogels and tissues. Biotechnology Advances, 2020, 42, 107573.	11.7	29
22	Fluorescent silica particles for monitoring oxygen levels in threeâ€dimensional heterogeneous cellular structures. Biotechnology and Bioengineering, 2012, 109, 2663-2670.	3.3	16
23	Enhancement of human neural stem cell selfâ€renewal in 3D hypoxic culture. Biotechnology and Bioengineering, 2017, 114, 1096-1106.	3.3	12
24	Impact of Four Common Hydrogels on Amyloid-Î² (AÎ²) Aggregation and Cytotoxicity: Implications for 3D Models of Alzheimerâ€™s Disease. ACS Omega, 2020, 5, 20250-20260.	3.5	12
25	Collagen hydrogel confinement of Amyloid-Î² (AÎ²) accelerates aggregation and reduces cytotoxic effects. Acta Biomaterialia, 2020, 112, 164-173.	8.3	11
26	Stability of proteins encapsulated in Michaelâ€type addition polyethylene glycol hydrogels. Biotechnology and Bioengineering, 2021, 118, 4840-4853.	3.3	9
27	The effect of hypoxia and laminin-rich substrates on the proliferative behavior of human neural stem cells. Journal of Materials Chemistry B, 2016, 4, 3509-3514.	5.8	7
28	Naturally-derived and bioinspired materials. Journal of Materials Chemistry B, 2015, 3, 7814-7817.	5.8	4
29	Real-time local oxygen measurements for high resolution cellular imaging. Journal of Molecular and Cellular Cardiology, 2019, 127, 97-104.	1.9	1
30	Fate of transition metals in PO₄-based <i>in vitro</i> assays: equilibrium modeling and macroscopic studies. Environmental Sciences: Processes and Impacts, 2021, 23, 160-169.	3.5	1
31	Microaligned collagen matrices by hydrodynamic focusing: controlling the pH-induced self-assembly. Materials Research Society Symposia Proceedings, 2005, 898, 1.	0.1	0
32	Understanding Hypoxic Environments: Biomaterials Approaches to Neural Stabilization and Regeneration after Ischemia. Studies in Mechanobiology, Tissue Engineering and Biomaterials, 2010, , 247-274.	1.0	0
33	Culturing Neurons, Glia, and Progenitor Cells in Three-Dimensional Hydrogels. Neuromethods, 2015, , 91-99.	0.3	0