

Hojae Bae

List of Publications by Year in descending order

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115
papers

11,964
citations

34105

52
h-index

25787

108
g-index

122
all docs

122
docs citations

122
times ranked

15900
citing authors

#	ARTICLE	IF	CITATIONS
1	Cell-laden microengineered gelatin methacrylate hydrogels. <i>Biomaterials</i> , 2010, 31, 5536-5544.	11.4	1,864
2	Carbon-Nanotube-Embedded Hydrogel Sheets for Engineering Cardiac Constructs and Bioactuators. <i>ACS Nano</i> , 2013, 7, 2369-2380.	14.6	789
3	Functional Human Vascular Network Generated in Photocrosslinkable Gelatin Methacrylate Hydrogels. <i>Advanced Functional Materials</i> , 2012, 22, 2027-2039.	14.9	618
4	Biocompatibility of hydrogel-based scaffolds for tissue engineering applications. <i>Biotechnology Advances</i> , 2017, 35, 530-544.	11.7	579
5	Microfabrication of complex porous tissue engineering scaffolds using 3D projection stereolithography. <i>Biomaterials</i> , 2012, 33, 3824-3834.	11.4	560
6	Directed 3D cell alignment and elongation in microengineered hydrogels. <i>Biomaterials</i> , 2010, 31, 6941-6951.	11.4	463
7	Carbon Nanotube Reinforced Hybrid Microgels as Scaffold Materials for Cell Encapsulation. <i>ACS Nano</i> , 2012, 6, 362-372.	14.6	400
8	Microfabricated Biomaterials for Engineering 3D Tissues. <i>Advanced Materials</i> , 2012, 24, 1782-1804.	21.0	351
9	Current Progress in Reactive Oxygen Species (ROS)-Responsive Materials for Biomedical Applications. <i>Advanced Healthcare Materials</i> , 2013, 2, 908-915.	7.6	291
10	Synthesis and Characterization of Tunable Poly(Ethylene Glycol): Gelatin Methacrylate Composite Hydrogels. <i>Tissue Engineering - Part A</i> , 2011, 17, 1713-1723.	3.1	268
11	Vascularized Bone Tissue Engineering: Approaches for Potential Improvement. <i>Tissue Engineering - Part B: Reviews</i> , 2012, 18, 363-382.	4.8	259
12	DNA-directed self-assembly of shape-controlled hydrogels. <i>Nature Communications</i> , 2013, 4, 2275.	12.8	238
13	Directed endothelial cell morphogenesis in micropatterned gelatin methacrylate hydrogels. <i>Biomaterials</i> , 2012, 33, 9009-9018.	11.4	221
14	Three-dimensional graphene foams promote osteogenic differentiation of human mesenchymal stem cells. <i>Nanoscale</i> , 2013, 5, 4171.	5.6	221
15	Skeletal Muscle Tissue Engineering: Methods to Form Skeletal Myotubes and Their Applications. <i>Tissue Engineering - Part B: Reviews</i> , 2014, 20, 403-436.	4.8	218
16	Hybrid hydrogels containing vertically aligned carbon nanotubes with anisotropic electrical conductivity for muscle myofiber fabrication. <i>Scientific Reports</i> , 2014, 4, 4271.	3.3	213
17	Building Vascular Networks. <i>Science Translational Medicine</i> , 2012, 4, 160ps23.	12.4	202
18	Aligned Carbon Nanotube-Based Flexible Gel Substrates for Engineering Biohybrid Tissue Actuators. <i>Advanced Functional Materials</i> , 2015, 25, 4486-4495.	14.9	146

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19	Microfluidic Spinning of Cell-Responsive Grooved Microfibers. <i>Advanced Functional Materials</i> , 2015, 25, 2250-2259.	14.9	130
20	Classification of the printability of selected food for 3D printing: Development of an assessment method using hydrocolloids as reference material. <i>Journal of Food Engineering</i> , 2017, 215, 23-32.	5.2	128
21	Efficient scalable production of therapeutic microvesicles derived from human mesenchymal stem cells. <i>Scientific Reports</i> , 2018, 8, 1171.	3.3	122
22	Cold Water Fish Gelatin Methacryloyl Hydrogel for Tissue Engineering Application. <i>PLoS ONE</i> , 2016, 11, e0163902.	2.5	115
23	Facile and green production of aqueous graphene dispersions for biomedical applications. <i>Nanoscale</i> , 2015, 7, 6436-6443.	5.6	114
24	Bioconjugated Hydrogels for Tissue Engineering and Regenerative Medicine. <i>Bioconjugate Chemistry</i> , 2015, 26, 1984-2001.	3.6	111
25	Interface-Directed Self-Assembly of Cell-Laden Microgels. <i>Small</i> , 2010, 6, 937-944.	10.0	110
26	Hyperbranched Polyester Hydrogels with Controlled Drug Release and Cell Adhesion Properties. <i>Biomacromolecules</i> , 2013, 14, 1299-1310.	5.4	110
27	Myotube formation on gelatin nanofibers - Multi-walled carbon nanotubes hybrid scaffolds. <i>Biomaterials</i> , 2014, 35, 6268-6277.	11.4	109
28	Cell-laden microengineered pullulan methacrylate hydrogels promote cell proliferation and 3D cluster formation. <i>Soft Matter</i> , 2011, 7, 1903.	2.7	108
29	Patterned Differentiation of Individual Embryoid Bodies in Spatially Organized 3D Hybrid Microgels. <i>Advanced Materials</i> , 2010, 22, 5276-5281.	21.0	107
30	Osteoblastic/Cementoblastic and Neural Differentiation of Dental Stem Cells and Their Applications to Tissue Engineering and Regenerative Medicine. <i>Tissue Engineering - Part B: Reviews</i> , 2012, 18, 235-244.	4.8	102
31	Photo-cured hyaluronic acid-based hydrogels containing growth and differentiation factor 5 (GDF-5) for bone tissue regeneration. <i>Bone</i> , 2014, 59, 189-198.	2.9	90
32	A cell-based biosensor for real-time detection of cardiotoxicity using lensfree imaging. <i>Lab on A Chip</i> , 2011, 11, 1801.	6.0	89
33	Microscale Strategies for Generating Cell-Encapsulating Hydrogels. <i>Polymers</i> , 2012, 4, 1554-1579.	4.5	89
34	Influence of Transglutaminase-Induced Cross-Linking on Properties of Fish Gelatin Films. <i>Journal of Food Science</i> , 2006, 71, E376-E383.	3.1	87
35	Development of functional biomaterials with micro- and nanoscale technologies for tissue engineering and drug delivery applications. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2014, 8, 1-14.	2.7	86
36	Engineered Nanomembranes for Directing Cellular Organization Toward Flexible Biodevices. <i>Nano Letters</i> , 2013, 13, 3185-3192.	9.1	85

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37	Human-Derived Organ-on-a-Chip for Personalized Drug Development. <i>Current Pharmaceutical Design</i> , 2019, 24, 5471-5486.	1.9	72
38	Directed assembly of cell-laden hydrogels for engineering functional tissues. <i>Organogenesis</i> , 2010, 6, 234-244.	1.2	70
39	Three-dimensional co-culture of C2C12/PC12 cells improves skeletal muscle tissue formation and function. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2017, 11, 582-595.	2.7	70
40	Electrical stimulation as a biomimicry tool for regulating muscle cell behavior. <i>Organogenesis</i> , 2013, 9, 87-92.	1.2	65
41	Hydrogel surfaces to promote attachment and spreading of endothelial progenitor cells. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2013, 7, 337-347.	2.7	64
42	Surface-modified hyaluronic acid hydrogels to capture endothelial progenitor cells. <i>Soft Matter</i> , 2010, 6, 5120.	2.7	63
43	Gelatin-Polyaniline Composite Nanofibers Enhanced Excitation-Contraction Coupling System Maturation in Myotubes. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 42444-42458.	8.0	62
44	A mini-microscope for in situ monitoring of cells. <i>Lab on A Chip</i> , 2012, 12, 3976.	6.0	60
45	Engineering Approaches Toward Deconstructing and Controlling the Stem Cell Environment. <i>Annals of Biomedical Engineering</i> , 2012, 40, 1301-1315.	2.5	58
46	Directed Differentiation of Size-Controlled Embryoid Bodies Towards Endothelial and Cardiac Lineages in RGD-Modified Poly(Ethylene Glycol) Hydrogels. <i>Advanced Healthcare Materials</i> , 2013, 2, 195-205.	7.6	58
47	Microfabricated polyester conical microwells for cell culture applications. <i>Lab on A Chip</i> , 2011, 11, 2325.	6.0	57
48	Generating Nonlinear Concentration Gradients in Microfluidic Devices for Cell Studies. <i>Analytical Chemistry</i> , 2011, 83, 2020-2028.	6.5	56
49	Directed assembly of cell-laden microgels for building porous three-dimensional tissue constructs. <i>Journal of Biomedical Materials Research - Part A</i> , 2011, 97A, 93-102.	4.0	56
50	Lens-Free Imaging for Biological Applications. <i>Journal of the Association for Laboratory Automation</i> , 2012, 17, 43-49.	2.8	55
51	Reprint of: Classification of the printability of selected food for 3D printing: Development of an assessment method using hydrocolloids as reference material. <i>Journal of Food Engineering</i> , 2018, 220, 28-37.	5.2	54
52	Drug-Eluting Microarrays for Cell-Based Screening of Chemical-Induced Apoptosis. <i>Analytical Chemistry</i> , 2011, 83, 4118-4125.	6.5	53
53	Enhanced skeletal muscle formation on microfluidic spun gelatin methacryloyl (GelMA) fibres using surface patterning and agrin treatment. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2018, 12, 2151-2163.	2.7	53
54	Hydrogel Production Platform with Dynamic Movement Using Photo-Crosslinkable/Temperature Reversible Chitosan Polymer and Stereolithography 4D Printing Technology. <i>Tissue Engineering and Regenerative Medicine</i> , 2020, 17, 423-431.	3.7	53

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55	A Hollow Sphere Soft Lithography Approach for Long-Term Hanging Drop Methods. <i>Tissue Engineering - Part C: Methods</i> , 2010, 16, 249-259.	2.1	50
56	Micropatterned Polymeric Nanosheets for Local Delivery of an Engineered Epithelial Monolayer. <i>Advanced Materials</i> , 2014, 26, 1699-1705.	21.0	49
57	Marine Biomaterial-Based Bioinks for Generating 3D Printed Tissue Constructs. <i>Marine Drugs</i> , 2018, 16, 484.	4.6	48
58	Nanogels Derived from Fish Gelatin: Application to Drug Delivery System. <i>Marine Drugs</i> , 2019, 17, 246.	4.6	47
59	An integrated microfluidic device for two-dimensional combinatorial dilution. <i>Lab on A Chip</i> , 2011, 11, 3277.	6.0	46
60	Microfluidic fabrication of cell adhesive chitosan microtubes. <i>Biomedical Microdevices</i> , 2013, 15, 465-472.	2.8	46
61	Siphon-driven microfluidic passive pump with a yarn flow resistance controller. <i>Lab on A Chip</i> , 2014, 14, 4213-4219.	6.0	43
62	Injectable hydrogel derived from chitosan with tunable mechanical properties via hybrid-crosslinking system. <i>Carbohydrate Polymers</i> , 2021, 251, 117036.	10.2	41
63	Kappa-Carrageenan-Based Dual Crosslinkable Bioink for Extrusion Type Bioprinting. <i>Polymers</i> , 2020, 12, 2377.	4.5	38
64	Stem Cell Differentiation Toward the Myogenic Lineage for Muscle Tissue Regeneration: A Focus on Muscular Dystrophy. <i>Stem Cell Reviews and Reports</i> , 2015, 11, 866-884.	5.6	35
65	Influence of Food with High Moisture Content on Oxygen Barrier Property of Polyvinyl Alcohol (PVA)/Vermiculite Nanocomposite Coated Multilayer Packaging Film. <i>Journal of Food Science</i> , 2018, 83, 349-357.	3.1	35
66	Efficient delivery of C/EBP beta gene into human mesenchymal stem cells via polyethylenimine-coated gold nanoparticles enhances adipogenic differentiation. <i>Scientific Reports</i> , 2016, 6, 33784.	3.3	30
67	Passage-dependent cancerous transformation of human mesenchymal stem cells under carcinogenic hypoxia. <i>FASEB Journal</i> , 2013, 27, 2788-2798.	0.5	29
68	The Effect of Fetal Bovine Serum (FBS) on Efficacy of Cellular Reprogramming for Induced Pluripotent Stem Cell (iPSC) Generation. <i>Cell Transplantation</i> , 2016, 25, 1025-1042.	2.5	29
69	Cytotoxicity Evaluation of Turmeric Extract Incorporated Oil-in-Water Nanoemulsion. <i>International Journal of Molecular Sciences</i> , 2018, 19, 280.	4.1	29
70	Hydrogels containing metallic glass sub-micron wires for regulating skeletal muscle cell behaviour. <i>Biomaterials Science</i> , 2015, 3, 1449-1458.	5.4	27
71	Online Monitoring of Superoxide Anions Released from Skeletal Muscle Cells Using an Electrochemical Biosensor Based on Thick-Film Nanoporous Gold. <i>ACS Sensors</i> , 2016, 1, 921-928.	7.8	27
72	Organ-On-A-Chip: Development and Clinical Prospects Toward Toxicity Assessment with an Emphasis on Bone Marrow. <i>Drug Safety</i> , 2015, 38, 409-418.	3.2	26

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73	ZrO ₂ surface chemically coated with hyaluronic acid hydrogel loading GDF-5 for osteogenesis in dentistry. <i>Carbohydrate Polymers</i> , 2013, 92, 167-175.	10.2	25
74	The Use of Microtechnology and Nanotechnology in Fabricating Vascularized Tissues. <i>Journal of Nanoscience and Nanotechnology</i> , 2014, 14, 487-500.	0.9	25
75	Human hair keratin-based biofilm for potent application to periodontal tissue regeneration. <i>Macromolecular Research</i> , 2015, 23, 300-308.	2.4	22
76	Benchtop fabrication of PDMS microstructures by an unconventional photolithographic method. <i>Biofabrication</i> , 2010, 2, 045001.	7.1	21
77	Embryoid body size-mediated differential endodermal and mesodermal differentiation using polyethylene glycol (PEG) microwell array. <i>Macromolecular Research</i> , 2015, 23, 245-255.	2.4	21
78	Potential silver nanoparticles migration from commercially available polymeric baby products into food simulants. <i>Food Additives and Contaminants - Part A Chemistry, Analysis, Control, Exposure and Risk Assessment</i> , 2018, 35, 996-1005.	2.3	19
79	Microwell-mediated cell spheroid formation and its applications. <i>Macromolecular Research</i> , 2018, 26, 1-8.	2.4	19
80	Rapid monitoring of alkaline phosphatase in raw milk using 1,10-oxalyldiimidazole chemiluminescence detection. <i>Analytical Methods</i> , 2011, 3, 156-160.	2.7	18
81	Optimization of Polysaccharide Hydrocolloid for the Development of Bioink with High Printability/Biocompatibility for Coextrusion 3D Bioprinting. <i>Polymers</i> , 2021, 13, 1773.	4.5	17
82	High-throughput investigation of endothelial-to-mesenchymal transformation (EndMT) with combinatorial cellular microarrays. <i>Biotechnology and Bioengineering</i> , 2016, 113, 1403-1412.	3.3	16
83	Skin penetration-inducing gelatin methacryloyl nanogels for transdermal macromolecule delivery. <i>Macromolecular Research</i> , 2016, 24, 1115-1125.	2.4	16
84	Deep wells integrated with microfluidic valves for stable docking and storage of cells. <i>Biotechnology Journal</i> , 2011, 6, 156-164.	3.5	15
85	Dynamic three-dimensional micropatterned cell co-cultures within photocurable and chemically degradable hydrogels. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2016, 10, 690-699.	2.7	15
86	Development of Flexible Cell-Loaded Ultrathin Ribbons for Minimally Invasive Delivery of Skeletal Muscle Cells. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 579-589.	5.2	15
87	Flexible and Stretchable PEDOT-Embedded Hybrid Substrates for Bioengineering and Sensory Applications. <i>ChemNanoMat</i> , 2019, 5, 729-737.	2.8	15
88	Calcium Phosphate-Reinforced Photosensitizer-Loaded Polymer Nanoparticles for Photodynamic Therapy. <i>Chemistry - an Asian Journal</i> , 2013, 8, 3222-3229.	3.3	14
89	THERAPEUTIC APPLICATION OF NANOTECHNOLOGY IN CARDIOVASCULAR AND PULMONARY REGENERATION. <i>Computational and Structural Biotechnology Journal</i> , 2013, 7, e201304005.	4.1	13
90	In vivo differentiation of induced pluripotent stem cells into neural stem cells by chimera formation. <i>PLoS ONE</i> , 2017, 12, e0170735.	2.5	13

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91	Fabrication of hollow porous PLGA microspheres using sucrose for controlled dual delivery of dexamethasone and BMP2. <i>Journal of Industrial and Engineering Chemistry</i> , 2016, 37, 101-106.	5.8	10
92	A Liquid Chromatography Tandem Mass Spectrometry Approach for the Identification of Mebendazole Residue in Pork, Chicken, and Horse. <i>PLoS ONE</i> , 2017, 12, e0169597.	2.5	9
93	Improving Printability of Digital-Light-Processing 3D Bioprinting via Photoabsorber Pigment Adjustment. <i>International Journal of Molecular Sciences</i> , 2022, 23, 5428.	4.1	8
94	Effects of vitamin D2-fortified shiitake mushroom on bioavailability and bone structure. <i>Bioscience, Biotechnology and Biochemistry</i> , 2019, 83, 942-951.	1.3	7
95	Microfluidic systems for controlling stem cell microenvironments. , 2019, , 31-63.		7
96	Cell-Laden Gelatin Methacryloyl Bioink for the Fabrication of Z-Stacked Hydrogel Scaffolds for Tissue Engineering. <i>Polymers</i> , 2020, 12, 3027.	4.5	7
97	Photo-Cross-Linkable Human Albumin Colloidal Gels Facilitate In Vivo Vascular Integration for Regenerative Medicine. <i>ACS Omega</i> , 2021, 6, 33511-33522.	3.5	7
98	Down-Regulation of Transglutaminase 2 Stimulates Redifferentiation of Dedifferentiated Chondrocytes through Enhancing Glucose Metabolism. <i>International Journal of Molecular Sciences</i> , 2017, 18, 2359.	4.1	6
99	Applicability of biaxially oriented poly(trimethylene terephthalate) films using bio-based 1,3-propanediol in retort pouches. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46251.	2.6	6
100	Identification and Evaluation of Cytotoxicity of Peptide Liposome Incorporated Citron Extracts in an in Vitro System. <i>International Journal of Molecular Sciences</i> , 2018, 19, 626.	4.1	6
101	Fluorescence-coded DNA Nanostructure Probe System to Enable Discrimination of Tumor Heterogeneity via a Screening of Dual Intracellular microRNA Signatures in situ. <i>Scientific Reports</i> , 2017, 7, 13499.	3.3	5
102	New Biomaterials in Drug Delivery and Wound Care. <i>BioMed Research International</i> , 2015, 2015, 1-2.	1.9	4
103	Reversible Redox Activity by Ion-pH Dually Modulated Duplex Formation of i-Motif DNA with Complementary G-DNA. <i>Nanomaterials</i> , 2018, 8, 226.	4.1	3
104	Microengineering Approach for Directing Embryonic Stem Cell Differentiation. <i>Studies in Mechanobiology, Tissue Engineering and Biomaterials</i> , 2010, , 153-171.	1.0	2
105	Cell Surface Nano-modulation for Non-invasive in vivo Near-IR Stem Cell Monitoring. <i>ChemMedChem</i> , 2017, 12, 28-32.	3.2	2
106	Microfluidic Systems for Controlling Stem Cells Microenvironments. , 2013, , 175-203.		1
107	Forming vascular networks within functional cardiac tissue constructs. <i>Biomedical Engineering Letters</i> , 2013, 3, 138-143.	4.1	1
108	Mesoderm Lineage 3D Tissue Constructs Are Produced at Large-scale in a 3D Stem Cell Bioprocess. <i>Biotechnology Journal</i> , 2017, 12, 1600748.	3.5	1

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109	Microscale Biomaterials for Tissue Engineering. , 2011, , 119-138.		1
110	Microscale Technologies for Tissue Engineering and Stem Cell Differentiation. , 2011, , 375-396.		1
111	Stem Cells: Patterned Differentiation of Individual Embryoid Bodies in Spatially Organized 3D Hybrid Microgels (Adv. Mater. 46/2010). Advanced Materials, 2010, 22, 5220-5220.	21.0	0
112	Exponential Concentration Gradients in Microfluidic Devices for Cell Studies. , 2011, , .		0
113	Spica Prunella extract inhibits phosphorylation of JNK, ERK and $\text{I}\hat{\text{B}}\beta$ signals during osteoclastogenesis. Food Science and Biotechnology, 2013, 22, 1691-1698.	2.6	0
114	Microfabricated gels for tissue engineering. , 0, , 317-331.		0
115	Microtechnological Approaches in Stem Cell Science. , 2012, , 135-165.		0