Xiaoming Li

List of Publications by Year
in descending order

102 papers	4,519 citations	94269 37 h-index	106150 65 g-index
105 all docs	105 docs citations	105 times ranked	6064 citing authors

#	Article	IF	Citations
1	Nanostructured scaffolds for bone tissue engineering. Journal of Biomedical Materials Research - Part A, 2013, 101A, 2424-2435.	2.1	269
2	The use of carbon nanotubes to induce osteogenic differentiation of human adipose-derived MSCs inÂvitro and ectopic bone formation inÂvivo. Biomaterials, 2012, 33, 4818-4827.	5.7	250
3	Current investigations into magnetic nanoparticles for biomedical applications. Journal of Biomedical Materials Research - Part A, 2016, 104, 1285-1296.	2.1	248
4	Effect of microporosity on scaffolds for bone tissue engineering. International Journal of Energy Production and Management, 2018, 5, 115-124.	1.9	243
5	The effect of calcium phosphate microstructure on bone-related cells in vitro. Biomaterials, 2008, 29, 3306-3316.	5.7	237
6	Collagen-based implants reinforced by chitin fibres in a goat shank bone defect model. Biomaterials, 2006, 27, 1917-1923.	5.7	146
7	Effect of carbon nanotubes on cellular functions <i>in vitro</i>. Journal of Biomedical Materials Research - Part A, 2009, 91A, 132-139.	2.1	133
8	Biocompatibility and Toxicity of Nanoparticles and Nanotubes. Journal of Nanomaterials, 2012, 2012, 1-19.	1.5	120
9	Applications of Carbon Nanotubes in Bone Tissue Regeneration and Engineering: Superiority, Concerns, Current Advancements, and Prospects. Nanomaterials, 2019, 9, 1501.	1.9	119
10	Influence of the mechanical properties of biomaterials on degradability, cell behaviors and signaling pathways: current progress and challenges. Biomaterials Science, 2020, 8, 2714-2733.	2.6	111
11	Current investigations into carbon nanotubes for biomedical application. Biomedical Materials (Bristol), 2010, 5, 022001.	1.7	108
12	3D-Printed Biopolymers for Tissue Engineering Application. International Journal of Polymer Science, 2014, 2014, 1-13.	1.2	103
13	Biocomposites reinforced by fibers or tubes as scaffolds for tissue engineering or regenerative medicine. Journal of Biomedical Materials Research - Part A, 2014, 102, 1580-1594.	2.1	103
14	Biomedical investigation of CNT based coatings. Surface and Coatings Technology, 2011, 206, 759-766.	2.2	94
15	Effect of substrate stiffness on the functions of rat bone marrow and adipose tissue derived mesenchymal stem cells <i>in vitro</i>. Journal of Biomedical Materials Research - Part A, 2014, 102, 1092-1101.	2.1	91
16	Effects of physicochemical properties of nanomaterials on their toxicity. Journal of Biomedical Materials Research - Part A, 2015, 103, 2499-2507.	2.1	91
17	In vitro degradation of porous nano-hydroxyapatite/collagen/PLLA scaffold reinforced by chitin fibres. Materials Science and Engineering C, 2006, 26, 716-720.	3.8	90
18	Osteogenic differentiation of human adiposeâ€derived stem cells induced by osteoinductive calcium phosphate ceramics. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 97B, 10-19.	1.6	88

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19	Maturation of osteoblast-like SaoS2 induced by carbon nanotubes. Biomedical Materials (Bristol), 2009, 4, 015005.	1.7	80
20	Fiber-reinforced scaffolds in soft tissue engineering. International Journal of Energy Production and Management, 2017, 4, 257-268.	1.9	79
21	Surface modification of nanofibrous matrices via layer-by-layer functionalized silk assembly for mitigating the foreign body reaction. Biomaterials, 2018, 164, 22-37.	5.7	78
22	Small intestinal submucosa: superiority, limitations and solutions, and its potential to address bottlenecks in tissue repair. Journal of Materials Chemistry B, 2019, 7, 5038-5055.	2.9	64
23	Applications of decellularized materials in tissue engineering: advantages, drawbacks and current improvements, and future perspectives. Journal of Materials Chemistry B, 2020, 8, 10023-10049.	2.9	63
24	Collagen-based scaffolds reinforced by chitosan fibres for bone tissue engineering. Polymer International, 2005, 54, 1034-1040.	1.6	60
25	The use of bioactive peptides to modify materials for bone tissue repair. International Journal of Energy Production and Management, 2017, 4, 191-206.	1.9	56
26	The effect of carbon nanotubes on osteogenic functions of adipose-derived mesenchymal stem cells in vitro and bone formation in vivo compared with that of nano-hydroxyapatite and the possible mechanism. Bioactive Materials, 2021, 6, 333-345.	8.6	56
27	Chemical characteristics and cytocompatibility of collagen-based scaffold reinforced by chitin fibers for bone tissue engineering. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2006, 77B, 219-226.	1.6	55
28	In vitro evaluation of porous poly(<scp>L</scp>â€lactic acid) scaffold reinforced by chitin fibers. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2009, 90B, 503-509.	1.6	53
29	Physiological pulsatile flow culture conditions to generate functional endothelium on a sulfated silk fibroin nanofibrous scaffold. Biomaterials, 2014, 35, 4782-4791.	5.7	52
30	Applications of Graphene and Its Derivatives in Bone Repair: Advantages for Promoting Bone Formation and Providing Real-Time Detection, Challenges and Future Prospects . International Journal of Nanomedicine, 2020, Volume 15, 7523-7551.	3.3	52
31	Applications of 3D bioprinting in tissue engineering: advantages, deficiencies, improvements, and future perspectives. Journal of Materials Chemistry B, 2021, 9, 5385-5413.	2.9	51
32	Porous poly-L-lactic acid scaffold reinforced by chitin fibers. Polymer Bulletin, 2005, 54, 47-55.	1.7	48
33	Repair of Bone Defect in Femoral Condyle Using Microencapsulated Chitosan, Nanohydroxyapatite/Collagen and Poly(Lâ€Lactide)â€Based Microsphereâ€Scaffold Delivery System. Artificial Organs, 2011, 35, E119-28.	1.0	48
34	Repairing goat tibia segmental bone defect using scaffold cultured with mesenchymal stem cells. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2010, 94B, 44-52.	1.6	47
35	Biocompatibility and Toxicity of Nanobiomaterials. Journal of Nanomaterials, 2012, 2012, 1-2.	1.5	46
36	Effects of physicochemical properties of nanomaterials on their toxicity. Journal of Biomedical Materials Research - Part A, 2014, 103, n/a-n/a.	2.1	44

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37	The applications of conductive nanomaterials in the biomedical field. Journal of Biomedical Materials Research - Part A, 2016, 104, 322-339.	2.1	39
38	The effect of mechanical loads on the degradation of aliphatic biodegradable polyesters. International Journal of Energy Production and Management, 2017, 4, 179-190.	1.9	39
39	The application of nanomaterials in controlled drug delivery for bone regeneration. Journal of Biomedical Materials Research - Part A, 2015, 103, 3978-3992.	2.1	37
40	Incorporation of multi-walled carbon nanotubes to PMMA bone cement improves cytocompatibility and osseointegration. Materials Science and Engineering C, 2019, 103, 109823.	3.8	36
41	In Vitro Biocompatibility and Osteoblast Differentiation of an Injectable Chitosan/Nano-Hydroxyapatite/Collagen Scaffold. Journal of Nanomaterials, 2012, 2012, 1-6.	1.5	34
42	Biomechanical studies on biomaterial degradation and co-cultured cells: mechanisms, potential applications, challenges and prospects. Journal of Materials Chemistry B, 2019, 7, 7439-7459.	2.9	33
43	The Use of Nanoscaled Fibers or Tubes to Improve Biocompatibility and Bioactivity of Biomedical Materials. Journal of Nanomaterials, 2013, 2013, 1-16.	1.5	30
44	Biomimetic SIS-based biocomposites with improved biodegradability, antibacterial activity and angiogenesis for abdominal wall repair. Materials Science and Engineering C, 2020, 109, 110538.	3.8	30
45	Conductive nanostructured Si biomaterials enhance osteogeneration through electrical stimulation. Materials Science and Engineering C, 2019, 103, 109748.	3.8	29
46	Topographical patterning: characteristics of current processing techniques, controllable effects on material properties and co-cultured cell fate, updated applications in tissue engineering, and improvement strategies. Journal of Materials Chemistry B, 2019, 7, 7090-7109.	2.9	29
47	Resin Composites Reinforced by Nanoscaled Fibers or Tubes for Dental Regeneration. BioMed Research International, 2014, 2014, 1-13.	0.9	27
48	Magnetic nanoparticles applied in targeted therapy and magnetic resonance imaging: crucial preparation parameters, indispensable pre-treatments, updated research advancements and future perspectives. Journal of Materials Chemistry B, 2020, 8, 5973-5991.	2.9	26
49	The effect of fluid shear stress on the <i>in vitro</i> degradation of poly(lactideâ€<i>co</i>â€glycolide) acid membranes. Journal of Biomedical Materials Research - Part A, 2016, 104, 2315-2324.	2.1	24
50	Peptideâ€modified bone repair materials: Factors influencing osteogenic activity. Journal of Biomedical Materials Research - Part A, 2019, 107, 1491-1512.	2.1	23
51	Investigation on the mechanism of the osteoinduction for calcium phosphate. Bone, 2008, 43, S111-S112.	1.4	22
52	Applications of materials for dural reconstruction in pre-clinical and clinical studies: Advantages and drawbacks, efficacy, and selections. Materials Science and Engineering C, 2020, 117, 111326.	3.8	22
53	A biomimetic hierarchical small intestinal submucosaâ€“chitosan sponge/chitosan hydrogel scaffold with a micro/nano structure for dural repair. Journal of Materials Chemistry B, 2021, 9, 7821-7834.	2.9	21
54	The effects of silk layer-by-layer surface modification on the mechanical and structural retention of extracellular matrix scaffolds. Biomaterials Science, 2020, 8, 4026-4038.	2.6	19

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55	Threeâ€dimensional silk fibroin scaffolds incorporated with graphene for bone regeneration. Journal of Biomedical Materials Research - Part A, 2021, 109, 515-523.	2.1	19
56	Repairing 25Âmm bone defect using fibres reinforced scaffolds as well as autograft bone. Bone, 2008, 43, S94.	1.4	18
57	Improved osteogenic differentiation of human amniotic mesenchymal stem cells on gradient nanostructured Ti surface. Journal of Biomedical Materials Research - Part A, 2020, 108, 1824-1833.	2.1	17
58	Effects of hydroxyapatite/collagen composite on osteogenic differentiation of rat bone marrow derived mesenchymal stem cells. Journal of Composite Materials, 2014, 48, 1971-1980.	1.2	16
59	Effects of different fluid shear stress patterns on the in vitro degradation of poly(lactideâ€coâ€glycolide) acid membranes. Journal of Biomedical Materials Research - Part A, 2017, 105, 23-30.	2.1	15
60	Terminal Group Modification of Carbon Nanotubes Determines Covalently Bound Osteogenic Peptide Performance. ACS Biomaterials Science and Engineering, 2020, 6, 865-878.	2.6	15
61	A biomimetic triple-layered biocomposite with effective multifunction for dura repair. Acta Biomaterialia, 2021, 130, 248-267.	4.1	14
62	Biomaterials research of China from 2013 to 2017 based on bibliometrics and visualization analysis. PeerJ, 2019, 7, e6859.	0.9	13
63	The relationship between crosslinking structure and silk fibroin scaffold performance for soft tissue engineering. International Journal of Biological Macromolecules, 2021, 182, 1268-1277.	3.6	12
64	Emulsion Selfâ€Assembly Synthesis of Chitosan/Poly(lacticâ€<i>co</i>â€glycolic acid) Stimuliâ€Responsive Amphiphiles. Macromolecular Chemistry and Physics, 2013, 214, 700-706.	1.1	11
65	Reforming teaching methods by integrating dental theory with clinical practice for dental students. PeerJ, 2020, 8, e8477.	0.9	11
66	The Effect of Fluid Shear Stress on the In Vitro Release Kinetics of Sirolimus from PLGA Films. Polymers, 2017, 9, 618.	2.0	10
67	Modification of polyether ether ketone for the repairing of bone defects. Biomedical Materials (Bristol), 2022, 17, 042001.	1.7	10
68	The Use of Injectable Chitosan/Nanohydroxyapatite/Collagen Composites with Bone Marrow Mesenchymal Stem Cells to Promote Ectopic Bone Formation In Vivo. Journal of Nanomaterials, 2013, 2013, 1-8.	1.5	9
69	A novel method to <i>in vitro</i> evaluate biocompatibility of nanoscaled scaffolds. Journal of Biomedical Materials Research - Part A, 2016, 104, 2117-2125.	2.1	9
70	A numerical method for guiding the design of surgical meshes with suitable mechanical properties for specific abdominal hernias. Computers in Biology and Medicine, 2020, 116, 103531.	3.9	9
71	Nanocomposites for the delivery of bioactive molecules in tissue repair: vital structural features, application mechanisms, updated progress and future perspectives. Journal of Materials Chemistry B, 2020, 8, 10271-10289.	2.9	9
72	Exploring the match between the degradation of the ECM-based composites and tissue remodeling in a full-thickness abdominal wall defect model. Biomaterials Science, 2021, 9, 7895-7910.	2.6	9

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73	Noninvasive Evaluation of Injectable Chitosan/Nano-Hydroxyapatite/Collagen Scaffold via Ultrasound. Journal of Nanomaterials, 2012, 2012, 1-7.	1.5	8
74	InÂVivo Disintegration and Bioresorption of a Nacre-Inspired Graphene-Silk Film Caused by the Foreign-Body Reaction. IScience, 2020, 23, 101155.	1.9	8
75	Scaffolds in Bone Tissue Engineering: Research Progress and Current Applications. , 2020, , 204-215.		8
76	Stereotactic technology for 3D bioprinting: from the perspective of robot mechanism. Biofabrication, 2021, 13, 043001.	3.7	8
77	The Ability and Mechanism of nHAC/CGF in Promoting Osteogenesis and Repairing Mandibular Defects. Nanomaterials, 2022, 12, 212.	1.9	8
78	Development of novel oxygen carriers by coupling hemoglobin to functionalized multiwall carbon nanotubes. Journal of Materials Chemistry B, 2019, 7, 4821-4832.	2.9	6
79	Cytotoxic effects of dental prosthesis grinding dust on RAW264.7 cells. Scientific Reports, 2020, 10, 14364.	1.6	6
80	Evaluation methods for mechanical biocompatibility of hernia repair meshes: respective characteristics, application scope and future perspectives. Journal of Materials Research and Technology, 2021, 13, 1826-1840.	2.6	6
81	Proliferation of osteoblast cells on nanotubes. Frontiers of Materials Science in China, 2009, 3, 169-173.	0.5	5
82	Scaffolds Reinforced by Fibers or Tubes for Tissue Repair. BioMed Research International, 2014, 2014, 1-2.	0.9	5
83	Elastic constants identification of irregular hard biological tissue materials using FEM-based resonant ultrasound spectroscopy. Journal of the Mechanical Behavior of Biomedical Materials, 2019, 96, 20-26.	1.5	5
84	Recent Patents on Polymeric Scaffolds for Tissue Engineering. Recent Patents on Biomedical Engineering, 2009, 2, 65-72.	0.5	3
85	Polymeric Scaffolds for Tissue Engineering. International Journal of Polymer Science, 2014, 2014, 1-2.	1.2	3
86	Application of Ultrasound on Monitoring the Evolution of the Collagen Fiber Reinforced nHAC/CS CompositesIn Vivo. BioMed Research International, 2014, 2014, 1-9.	0.9	3
87	Influence of mineralized collagen fibrils on the thermo-sensitivity of an injectable scaffold for bone regeneration. International Journal of Materials Research, 2011, 102, 1384-1390.	0.1	2
88	A Multidisciplined Teaching Reform of Biomaterials Course for Undergraduate Students. Journal of Science Education and Technology, 2015, 24, 735-746.	2.4	2
89	A Clean Hydroprocessing of Jatropha Oil into Biofuels over a High Performance Ni-HPW/CNT Catalyst. Nano, 2017, 12, 1750142.	0.5	2
90	A Stable Large Animal Model for Dural Defect Repair with Biomaterials and Regenerative Medicine. Tissue Engineering - Part C: Methods, 2019, 25, 315-323.	1.1	2

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91	Biocompatibility and Toxicity of Nanobiomaterials 2013. Journal of Nanomaterials, 2014, 2014, 1-2.	1.5	1
92	Overview of Decellularized Materials for Tissue Repair and Organ Replacement. , 2021, , 1-67.		1
93	The Decellularization of Whole Organs. , 2021, , 253-311.		1
94	Overview of Scaffold Reinforcement for Tissue Repair. , 2017, , 1-23.		1
95	New developments of biomaterials course for biomedical engineering education. , 2011, , .		0
96	Osteogenesis Capability and Degradation Property Evaluation of Injectable Biomaterials: Comparison of Computed Tomography and Ultrasound. Journal of Nanomaterials, 2013, 2013, 1-8.	1.5	0
97	Collagen-based tissue repair composite. , 0, , 183-202.		0
98	The Challenges and Development Directions of Decellularized Materials. , 2021, , 489-515.		0
99	Applications of Decellularized Materials for Tissue Repair. , 2021, , 181-251.		0
100	The Potential Matrix and Reinforcement Materials for the Preparation of the Scaffolds Reinforced by Fibers or Tubes for Tissue Repair. , 2017, , 25-77.		0
101	Scaffolds Reinforced by Fibers or Tubes for Hard Tissue Repair. , 2017, , 225-260.		0
102	Kinematic Analysis of Stereotactic Bioprinting Prototype Based on Double-Parallelogram Mechanism. , 2021, , .		0