Lichun Lu

List of Publications by Year in Descending Order

103 papers	5,213 citations	38 h-index	71 g-index
108 ext. papers	5,698 ext. citations	7 avg, IF	5.42 L-index

#	Paper	IF	Citations
103	Zinc-doped hydroxyapatite and poly(propylene fumarate) nanocomposite scaffold for bone tissue engineering. *Journal of Materials Science*, **2022**, 57, 5998-6012	4.3	0
102	Two-dimensional nanomaterials-added dynamism in 3D printing and bioprinting of biomedical platforms: Unique opportunities and challenges.. *Biomaterials*, **2022**, 284, 121507	15.6	0
101	A comparative study on cylindrical and spherical models in fabrication of bone tissue engineering scaffolds: Finite element simulation and experiments. *Materials and Design*, **2021**, 211, 110150	8.1	2
100	Black phosphorus incorporation modulates nanocomposite hydrogel properties and subsequent MC3T3 cell attachment, proliferation, and differentiation. *Journal of Biomedical Materials Research - Part A*, **2021**, 109, 1633-1645	5.4	0
99	Bifunctional hydrogel for potential vascularized bone tissue regeneration. *Materials Science and Engineering C*, **2021**, 124, 112075	8.3	6
98	CT-based structural analyses of vertebral fractures with polymeric augmentation: A study of cadaveric three-level spine segments. *Computers in Biology and Medicine*, **2021**, 133, 104395	7	1
97	Poly(Caprolactone Fumarate) and Oligo[Poly(Ethylene Glycol) Fumarate]: Two Decades of Exploration in Biomedical Applications. *Polymer Reviews*, **2021**, 61, 319-356	14	6
96	3D bioprinting of oligo(poly[ethylene glycol] fumarate) for bone and nerve tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2021**, 109, 6-17	5.4	12
95	2D phosphorene nanosheets, quantum dots, nanoribbons: synthesis and biomedical applications. *Biomaterials Science*, **2021**, 9, 2768-2803	7.4	8
94	Mesenchymal stem cell spheroids incorporated with collagen and black phosphorus promote osteogenesis of biodegradable hydrogels. *Materials Science and Engineering C*, **2021**, 121, 111812	8.3	3
93	Three-dimensional surface strain analyses of simulated defect and augmented spine segments: A biomechanical cadaveric study. *Journal of the Mechanical Behavior of Biomedical Materials*, **2021**, 119, 104559	4.1	3
92	Spatial and uniform deposition of cell-laden constructs on 3D printed composite phosphorylated hydrogels for improved osteoblast responses. *Journal of Materials Science*, **2021**, 56, 17768-17784	4.3	2
91	SDF-1/OPF/BP Composites Enhance the Migrating and Osteogenic Abilities of Mesenchymal Stem Cells. *Stem Cells International*, **2021**, 2021, 1938819	5	1
90	Injectable catalyst-free "click" organic-inorganic nanohybrid (click-ON) cement for minimally invasive in vivo bone repair. *Biomaterials*, **2021**, 276, 121014	15.6	4
89	Single-level subject-specific finite element model can predict fracture outcomes in three-level spine segments under different loading rates. *Computers in Biology and Medicine*, **2021**, 137, 104833	7	0
88	Enhanced nerve cell proliferation and differentiation on electrically conductive scaffolds embedded with graphene and carbon nanotubes. *Journal of Biomedical Materials Research - Part A*, **2021**, 109, 193-206	5.4	14
87	Injectable pH-responsive adhesive hydrogels for bone tissue engineering inspired by the underwater attachment strategy of marine mussels.. *Materials Science and Engineering C*, **2021**, 112606	8.3	0

86	Injectable Electrical Conductive and Phosphate Releasing Gel with Two-Dimensional Black Phosphorus and Carbon Nanotubes for Bone Tissue Engineering. *ACS Biomaterials Science and Engineering*, **2020**, 6, 4653-4665	5.5	15
85	3D-printed scaffolds with carbon nanotubes for bone tissue engineering: Fast and homogeneous one-step functionalization. *Acta Biomaterialia*, **2020**, 111, 129-140	10.8	32
84	Phosphate functionalization and enzymatic calcium mineralization synergistically enhance oligo[poly(ethylene glycol) fumarate] hydrogel osteoconductivity for bone tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2020**, 108, 515-527	5.4	9
83	Rapid conjugation of nanoparticles, proteins and siRNAs to microbubbles by strain-promoted click chemistry for ultrasound imaging and drug delivery. *Polymer Chemistry*, **2019**, 10, 705-717	4.9	9
82	STIM1 expression is associated with osteosarcoma cell survival. *Chinese Journal of Cancer Research: Official Journal of China Anti-Cancer Association, Beijing Institute for Cancer Research*, **2019**, 31, 203-211	3.8	6
81	Two-Dimensional Black Phosphorus and Graphene Oxide Nanosheets Synergistically Enhance Cell Proliferation and Osteogenesis on 3D Printed Scaffolds. *ACS Applied Materials & Interfaces*, **2019**, 11, 23558-23572	9.5	63
80	The Osteoinductive Effect of Controlled Bone Morphogenic Protein 2 Release Is Location Dependent. *Tissue Engineering - Part A*, **2019**, 25, 193-202	3.9	4
79	Injectable Catalyst-Free Poly(Propylene Fumarate) System Cross-Linked by Strain Promoted Alkyne-Azide Cycloaddition Click Chemistry for Spine Defect Filling. *Biomacromolecules*, **2019**, 20, 3352-3365	6.0	10
78	Mechanical testing setups affect spine segment fracture outcomes. *Journal of the Mechanical Behavior of Biomedical Materials*, **2019**, 100, 103399	4.1	4
77	Endoscopic magnet placement into subadventitial tunnels for augmenting the lower esophageal sphincter using submucosal endoscopy: ex‐vivo and in‐vivo study in a porcine model (with‐video). *Gastrointestinal Endoscopy*, **2019**, 89, 422-428	5.2	5
76	Strontium-substituted hydroxyapatite stimulates osteogenesis on poly(propylene fumarate) nanocomposite scaffolds. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 631-642	5.4	19
75	Effect of Biomaterial Electrical Charge on Bone Morphogenetic Protein-2-Induced Bone Formation. *Tissue Engineering - Part A*, **2019**, 25, 1037-1052	3.9	6
74	Composite Hydrogel Embedded with Porous Microspheres for Long-Term pH-Sensitive Drug Delivery. *Tissue Engineering - Part A*, **2019**, 25, 172-182	3.9	5
73	Bone morphogenetic protein-2 release profile modulates bone formation in phosphorylated hydrogel. *Journal of Tissue Engineering and Regenerative Medicine*, **2018**, 12, 1339-1351	4.4	21
72	Fast functionalization of ultrasound microbubbles using strain promoted click chemistry. *Biomaterials Science*, **2018**, 6, 623-632	7.4	10
71	Cross-linkable graphene oxide embedded nanocomposite hydrogel with enhanced mechanics and cytocompatibility for tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 1247-1257	5.4	5
70	Three-dimensional porous poly(propylene fumarate)-co-poly(lactic-co-glycolic acid) scaffolds for tissue engineering. *Journal of Biomedical Materials Research - Part A*, **2018**, 106, 2507-2517	5.4	7
69	The trabecular effect: A population-based longitudinal study on age and sex differences in bone mineral density and vertebral load bearing capacity. *Clinical Biomechanics*, **2018**, 55, 73-78	2.2	8

68	Strengthening injectable thermo-sensitive NIPAAm-g-chitosan hydrogels using chemical cross-linking of disulfide bonds as scaffolds for tissue engineering. *Carbohydrate Polymers*, **2018**, 192, 308-316	10.3	60
67	Effect of different sustained bone morphogenetic protein-2 release kinetics on bone formation in poly(propylene fumarate) scaffolds. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2018**, 106, 477-487	3.5	18
66	Phosphate Functional Groups Improve Oligo[(Polyethylene Glycol) Fumarate] Osteoconduction and BMP-2 Osteoinductive Efficacy. *Tissue Engineering - Part A*, **2018**, 24, 819-829	3.9	19
65	Poly(Propylene Fumarate)-Hydroxyapatite Nanocomposite Can Be a Suitable Candidate for Cervical Cages. *Journal of Biomechanical Engineering*, **2018**, 140,	2.1	9
64	Effective nerve cell modulation by electrical stimulation of carbon nanotube embedded conductive polymeric scaffolds. *Biomaterials Science*, **2018**, 6, 2375-2385	7.4	51
63	Electrically conductive nanocomposite hydrogels embedded with functionalized carbon nanotubes for spinal cord injury. *New Journal of Chemistry*, **2018**, 42, 17671-17681	3.6	35
62	In Vitro and In Vivo Correlation of Bone Morphogenetic Protein-2 Release Profiles from Complex Delivery Vehicles. *Tissue Engineering - Part C: Methods*, **2018**, 24, 379-390	2.9	6
61	Functionalized Carbon Nanotube and Graphene Oxide Embedded Electrically Conductive Hydrogel Synergistically Stimulates Nerve Cell Differentiation. *ACS Applied Materials & Interfaces*, **2017**, 9, 14677-14690	9.5	116
60	Are DXA/aBMD and QCT/FEA Stiffness and Strength Estimates Sensitive to Sex and Age?. *Annals of Biomedical Engineering*, **2017**, 45, 2847-2856	4.7	11
59	Method and Instrumented Fixture for Femoral Fracture Testing in a Sideways Fall-on-the-Hip Position. *Journal of Visualized Experiments*, **2017**,	1.6	3
58	A Method to Estimate Cadaveric Femur Cortical Strains During Fracture Testing Using Digital Image Correlation. *Journal of Visualized Experiments*, **2017**,	1.6	2
57	Proximal Cadaveric Femur Preparation for Fracture Strength Testing and Quantitative CT-based Finite Element Analysis. *Journal of Visualized Experiments*, **2017**,	1.6	4
56	A New Vertebral Body Replacement Strategy Using Expandable Polymeric Cages. *Tissue Engineering - Part A*, **2017**, 23, 223-232	3.9	10
55	Novel porous poly(propylene fumarate-co-caprolactone) scaffolds fabricated by thermally induced phase separation. *Journal of Biomedical Materials Research - Part A*, **2017**, 105, 226-235	5.4	15
54	Expansile crosslinked polymersomes for pH sensitive delivery of doxorubicin. *Biomaterials Science*, **2016**, 4, 245-9	7.4	22
53	Noninvasive Failure Load Prediction of Vertebrae with Simulated Lytic Defects and Biomaterial Augmentation. *Tissue Engineering - Part C: Methods*, **2016**, 22, 717-24	2.9	11
52	Poly(ε-caprolactone) Dendrimer Cross-Linked via Metal-Free Click Chemistry: Injectable Hydrophobic Platform for Tissue Engineering. *ACS Macro Letters*, **2016**, 5, 1261-1265	6.6	29
51	Covalent crosslinking of graphene oxide and carbon nanotube into hydrogels enhances nerve cell responses. *Journal of Materials Chemistry B*, **2016**, 4, 6930-6941	7.3	55

50	Tissue engineered constructs: perspectives on clinical translation. *Annals of Biomedical Engineering*, **2015**, 43, 796-804	4.7	24
49	Biodegradable and crosslinkable PPF-PLGA-PEG self-assembled nanoparticles dual-decorated with folic acid ligands and rhodamine B fluorescent probes for targeted cancer imaging.. *RSC Advances*, **2015**, 5, 33275-33282	3.7	25
48	Molecularly Engineered Biodegradable Polymer Networks with a Wide Range of Stiffness for Bone and Peripheral Nerve Regeneration. *Advanced Functional Materials*, **2015**, 25, 2715-2724	15.6	38
47	Hydrolysable core crosslinked particle for receptor-mediated pH-sensitive anticancer drug delivery. *New Journal of Chemistry*, **2015**, 39, 8840-8847	3.6	10
46	Novel biodegradable poly(propylene fumarate)--poly(l-lactic acid) porous scaffolds fabricated by phase separation for tissue engineering applications. *RSC Advances*, **2015**, 5, 21301-21309	3.7	30
45	Tunable tissue scaffolds fabricated by crosslink in phase separation system. *RSC Advances*, **2015**, 5, 100824-100833	3.7	24
44	Nanocomposite bone scaffolds based on biodegradable polymers and hydroxyapatite. *Journal of Biomedical Materials Research - Part A*, **2015**, 103, 2549-57	5.4	28
43	Effect of calcium phosphate coating and rhBMP-2 on bone regeneration in rabbit calvaria using poly(propylene fumarate) scaffolds. *Acta Biomaterialia*, **2015**, 18, 9-20	10.8	66
42	Biomechanical evaluation of an injectable and biodegradable copolymer P(PF-co-CL) in a cadaveric vertebral body defect model. *Tissue Engineering - Part A*, **2014**, 20, 1096-102	3.9	18
41	Hydrogel-PLGA delivery system prolongs 2-methoxyestradiol-mediated anti-tumor effects in osteosarcoma cells. *Journal of Biomedical Materials Research - Part A*, **2013**, 101, 2491-9	5.4	6
40	Polymeric Biomaterials for Tissue Engineering Applications 2011. *International Journal of Polymer Science*, **2011**, 2011, 1-2	2.4	17
39	Material properties and electrical stimulation regimens of polycaprolactone fumarate-polypyrrole scaffolds as potential conductive nerve conduits. *Acta Biomaterialia*, **2011**, 7, 944-53	10.8	82
38	Cross-linking characteristics and mechanical properties of an injectable biomaterial composed of polypropylene fumarate and polycaprolactone co-polymer. *Journal of Biomaterials Science, Polymer Edition*, **2011**, 22, 489-504	3.5	39
37	Effects of composite formulation on the mechanical properties of biodegradable poly(propylene fumarate)/bone fiber scaffolds. *International Journal of Polymer Science*, **2010**, 2010,	2.4	11
36	Enhanced bone morphogenetic protein-2-induced ectopic and orthotopic bone formation by intermittent parathyroid hormone (1-34) administration. *Tissue Engineering - Part A*, **2010**, 16, 3769-77	3.9	32
35	Development of electrically conductive oligo(polyethylene glycol) fumarate-polypyrrole hydrogels for nerve regeneration. *Biomacromolecules*, **2010**, 11, 2845-53	6.9	98
34	Enhanced cell ingrowth and proliferation through three-dimensional nanocomposite scaffolds with controlled pore structures. *Biomacromolecules*, **2010**, 11, 682-9	6.9	84
33	In vivo biodegradation and biocompatibility of PEG/sebacic acid-based hydrogels using a cage implant system. *Journal of Biomedical Materials Research - Part A*, **2010**, 95, 191-7	5.4	39

32	A stimuli-responsive hydrogel for doxorubicin delivery. *Biomaterials*, **2010**, 31, 8051-62	15.6	93
31	The development of electrically conductive polycaprolactone fumarate-polypyrrole composite materials for nerve regeneration. *Biomaterials*, **2010**, 31, 5916-26	15.6	124
30	Effect of autologous bone marrow stromal cell seeding and bone morphogenetic protein-2 delivery on ectopic bone formation in a microsphere/poly(propylene fumarate) composite. *Tissue Engineering - Part A*, **2009**, 15, 587-94	3.9	45
29	Non-invasive monitoring of BMP-2 retention and bone formation in composites for bone tissue engineering using SPECT/CT and scintillation probes. *Journal of Controlled Release*, **2009**, 134, 169-76	11.7	45
28	Development of biodegradable and injectable macromers based on poly(ethylene glycol) and diacid monomers. *Journal of Biomedical Materials Research - Part A*, **2009**, 90, 1010-20	5.4	7
27	Effect of local sequential VEGF and BMP-2 delivery on ectopic and orthotopic bone regeneration. *Biomaterials*, **2009**, 30, 2816-25	15.6	481
26	The roles of matrix polymer crystallinity and hydroxyapatite nanoparticles in modulating material properties of photo-crosslinked composites and bone marrow stromal cell responses. *Biomaterials*, **2009**, 30, 3359-70	15.6	53
25	Stimulation of neurite outgrowth using positively charged hydrogels. *Biomaterials*, **2009**, 30, 3874-81	15.6	94
24	Photo-crosslinked poly(epsilon-caprolactone fumarate) networks for guided peripheral nerve regeneration: material properties and preliminary biological evaluations. *Acta Biomaterialia*, **2009**, 5, 1531-42	10.8	85
23	Three-dimensional porous biodegradable polymeric scaffolds fabricated with biodegradable hydrogel porogens. *Tissue Engineering - Part C: Methods*, **2009**, 15, 583-94	2.9	67
22	Non-invasive screening method for simultaneous evaluation of in vivo growth factor release profiles from multiple ectopic bone tissue engineering implants. *Journal of Controlled Release*, **2008**, 130, 15-21	11.7	19
21	Synthesis and evaluation of novel biodegradable hydrogels based on poly(ethylene glycol) and sebacic acid as tissue engineering scaffolds. *Biomacromolecules*, **2008**, 9, 149-57	6.9	112
20	Photo-cross-linked hybrid polymer networks consisting of poly(propylene fumarate) and poly(caprolactone fumarate): controlled physical properties and regulated bone and nerve cell responses. *Biomacromolecules*, **2008**, 9, 1229-41	6.9	92
19	Retention of in vitro and in vivo BMP-2 bioactivities in sustained delivery vehicles for bone tissue engineering. *Biomaterials*, **2008**, 29, 3245-52	15.6	230
18	Photo-Crosslinked Poly(Ecaprolactone fumarate) Networks: Roles of Crystallinity and Crosslinking Density in Determining Mechanical Properties. *Polymer*, **2008**, 49, 5692-5699	3.9	87
17	Characterization of porous injectable poly-(propylene fumarate)-based bone graft substitute. *Journal of Biomedical Materials Research - Part A*, **2008**, 85, 1114-9	5.4	40
16	Physical properties and cellular responses to crosslinkable poly(propylene fumarate)/hydroxyapatite nanocomposites. *Biomaterials*, **2008**, 29, 2839-48	15.6	98
15	Effect of hydrogel porosity on marrow stromal cell phenotypic expression. *Biomaterials*, **2008**, 29, 2193-202	15.6	77

14	Characterization of photo-cross-linked oligo[poly(ethylene glycol) fumarate] hydrogels for cartilage tissue engineering. *Biomacromolecules*, **2007**, 8, 1702-9	6.9	75
13	Poly(propylene fumarate) bone tissue engineering scaffold fabrication using stereolithography: effects of resin formulations and laser parameters. *Biomacromolecules*, **2007**, 8, 1077-84	6.9	226
12	Biomechanical evaluation of an injectable radiopaque polypropylene fumarate cement for kyphoplasty in a cadaveric osteoporotic vertebral compression fracture model. *Journal of Spinal Disorders and Techniques*, **2007**, 20, 604-9		21
11	Controlled drug release from a novel injectable biodegradable microsphere/scaffold composite based on poly(propylene fumarate). *Journal of Biomedical Materials Research - Part A*, **2006**, 77, 103-11	5.4	78
10	Bone-tissue-engineering material poly(propylene fumarate): correlation between molecular weight, chain dimensions, and physical properties. *Biomacromolecules*, **2006**, 7, 1976-82	6.9	125
9	Fabrication and characterization of poly(propylene fumarate) scaffolds with controlled pore structures using 3-dimensional printing and injection molding. *Tissue Engineering*, **2006**, 12, 2801-11		114
8	Synthesis and characterizations of biodegradable and crosslinkable poly(epsilon-caprolactone fumarate), poly(ethylene glycol fumarate), and their amphiphilic copolymer. *Biomaterials*, **2006**, 27, 832-41	15.6	133
7	Synthesis, material properties, and biocompatibility of a novel self-cross-linkable poly(caprolactone fumarate) as an injectable tissue engineering scaffold. *Biomacromolecules*, **2005**, 6, 2503-11	6.9	96
6	A Biodegradable and Cross-Linkable Multiblock Copolymer Consisting of Poly(propylene fumarate) and Poly(ε-caprolactone): Synthesis, Characterization, and Physical Properties. *Macromolecules*, **2005**, 38, 7358-7370	5.5	62
5	Effects of dynamic fluid pressure on chondrocytes cultured in biodegradable poly(glycolic acid) fibrous scaffolds. *Tissue Engineering*, **2005**, 11, 1852-9		3
4	Development of biodegradable poly(propylene fumarate)/poly(lactic-co-glycolic acid) blend microspheres. I. Preparation and characterization. *Journal of Biomedical Materials Research Part B*, **2004**, 70, 283-92		18
3	Bioactive poly(L-lactic acid) conduits seeded with Schwann cells for peripheral nerve regeneration. *Biomaterials*, **2002**, 23, 841-8	15.6	275
2	In vitro and in vivo degradation of porous poly(DL-lactic-co-glycolic acid) foams. *Biomaterials*, **2000**, 21, 1837-45	15.6	541
1	Marrow stromal osteoblast function on a poly(propylene fumarate)/beta-tricalcium phosphate biodegradable orthopaedic composite. *Biomaterials*, **2000**, 21, 1207-13	15.6	150