

# Lichun Lu

## List of Publications by Citations

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103  
papers

5,213  
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38  
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g-index

108  
ext. papers

5,698  
ext. citations

7  
avg, IF

5.42  
L-index

#	Paper	IF	Citations
103	In vitro and in vivo degradation of porous poly(DL-lactic-co-glycolic acid) foams. <i>Biomaterials</i> , <b>2000</b> , 21, 1837-45	15.6	541
102	Effect of local sequential VEGF and BMP-2 delivery on ectopic and orthotopic bone regeneration. <i>Biomaterials</i> , <b>2009</b> , 30, 2816-25	15.6	481
101	Bioactive poly(L-lactic acid) conduits seeded with Schwann cells for peripheral nerve regeneration. <i>Biomaterials</i> , <b>2002</b> , 23, 841-8	15.6	275
100	Retention of in vitro and in vivo BMP-2 bioactivities in sustained delivery vehicles for bone tissue engineering. <i>Biomaterials</i> , <b>2008</b> , 29, 3245-52	15.6	230
99	Poly(propylene fumarate) bone tissue engineering scaffold fabrication using stereolithography: effects of resin formulations and laser parameters. <i>Biomacromolecules</i> , <b>2007</b> , 8, 1077-84	6.9	226
98	Marrow stromal osteoblast function on a poly(propylene fumarate)/beta-tricalcium phosphate biodegradable orthopaedic composite. <i>Biomaterials</i> , <b>2000</b> , 21, 1207-13	15.6	150
97	Synthesis and characterizations of biodegradable and crosslinkable poly(epsilon-caprolactone fumarate), poly(ethylene glycol fumarate), and their amphiphilic copolymer. <i>Biomaterials</i> , <b>2006</b> , 27, 832-41	15.6	133
96	Bone-tissue-engineering material poly(propylene fumarate): correlation between molecular weight, chain dimensions, and physical properties. <i>Biomacromolecules</i> , <b>2006</b> , 7, 1976-82	6.9	125
95	The development of electrically conductive polycaprolactone fumarate-polypyrrole composite materials for nerve regeneration. <i>Biomaterials</i> , <b>2010</b> , 31, 5916-26	15.6	124
94	Functionalized Carbon Nanotube and Graphene Oxide Embedded Electrically Conductive Hydrogel Synergistically Stimulates Nerve Cell Differentiation. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2017</b> , 9, 14677-14690	9.5	116
93	Fabrication and characterization of poly(propylene fumarate) scaffolds with controlled pore structures using 3-dimensional printing and injection molding. <i>Tissue Engineering</i> , <b>2006</b> , 12, 2801-11		114
92	Synthesis and evaluation of novel biodegradable hydrogels based on poly(ethylene glycol) and sebacic acid as tissue engineering scaffolds. <i>Biomacromolecules</i> , <b>2008</b> , 9, 149-57	6.9	112
91	Development of electrically conductive oligo(polyethylene glycol) fumarate-polypyrrole hydrogels for nerve regeneration. <i>Biomacromolecules</i> , <b>2010</b> , 11, 2845-53	6.9	98
90	Physical properties and cellular responses to crosslinkable poly(propylene fumarate)/hydroxyapatite nanocomposites. <i>Biomaterials</i> , <b>2008</b> , 29, 2839-48	15.6	98
89	Synthesis, material properties, and biocompatibility of a novel self-cross-linkable poly(caprolactone fumarate) as an injectable tissue engineering scaffold. <i>Biomacromolecules</i> , <b>2005</b> , 6, 2503-11	6.9	96
88	Stimulation of neurite outgrowth using positively charged hydrogels. <i>Biomaterials</i> , <b>2009</b> , 30, 3874-81	15.6	94
87	A stimuli-responsive hydrogel for doxorubicin delivery. <i>Biomaterials</i> , <b>2010</b> , 31, 8051-62	15.6	93

86	Photo-cross-linked hybrid polymer networks consisting of poly(propylene fumarate) and poly(ε-caprolactone fumarate): controlled physical properties and regulated bone and nerve cell responses. <i>Biomacromolecules</i> , <b>2008</b> , 9, 1229-41	6.9	92
85	Photo-Crosslinked Poly(ε-caprolactone fumarate) Networks: Roles of Crystallinity and Crosslinking Density in Determining Mechanical Properties. <i>Polymer</i> , <b>2008</b> , 49, 5692-5699	3.9	87
84	Photo-crosslinked poly(ε-caprolactone fumarate) networks for guided peripheral nerve regeneration: material properties and preliminary biological evaluations. <i>Acta Biomaterialia</i> , <b>2009</b> , 5, 1531-42	10.8	85
83	Enhanced cell ingrowth and proliferation through three-dimensional nanocomposite scaffolds with controlled pore structures. <i>Biomacromolecules</i> , <b>2010</b> , 11, 682-9	6.9	84
82	Material properties and electrical stimulation regimens of polycaprolactone fumarate-polypyrrole scaffolds as potential conductive nerve conduits. <i>Acta Biomaterialia</i> , <b>2011</b> , 7, 944-53	10.8	82
81	Controlled drug release from a novel injectable biodegradable microsphere/scaffold composite based on poly(propylene fumarate). <i>Journal of Biomedical Materials Research - Part A</i> , <b>2006</b> , 77, 103-11	5.4	78
80	Effect of hydrogel porosity on marrow stromal cell phenotypic expression. <i>Biomaterials</i> , <b>2008</b> , 29, 2193-2026	10.2	77
79	Characterization of photo-cross-linked oligo[poly(ethylene glycol) fumarate] hydrogels for cartilage tissue engineering. <i>Biomacromolecules</i> , <b>2007</b> , 8, 1702-9	6.9	75
78	Three-dimensional porous biodegradable polymeric scaffolds fabricated with biodegradable hydrogel porogens. <i>Tissue Engineering - Part C: Methods</i> , <b>2009</b> , 15, 583-94	2.9	67
77	Effect of calcium phosphate coating and rhBMP-2 on bone regeneration in rabbit calvaria using poly(propylene fumarate) scaffolds. <i>Acta Biomaterialia</i> , <b>2015</b> , 18, 9-20	10.8	66
76	Two-Dimensional Black Phosphorus and Graphene Oxide Nanosheets Synergistically Enhance Cell Proliferation and Osteogenesis on 3D Printed Scaffolds. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 23558-23572	9.5	63
75	A Biodegradable and Cross-Linkable Multiblock Copolymer Consisting of Poly(propylene fumarate) and Poly(ε-caprolactone): Synthesis, Characterization, and Physical Properties. <i>Macromolecules</i> , <b>2005</b> , 38, 7358-7370	5.5	62
74	Strengthening injectable thermo-sensitive NIPAAm-g-chitosan hydrogels using chemical cross-linking of disulfide bonds as scaffolds for tissue engineering. <i>Carbohydrate Polymers</i> , <b>2018</b> , 192, 308-316	10.3	60
73	Covalent crosslinking of graphene oxide and carbon nanotube into hydrogels enhances nerve cell responses. <i>Journal of Materials Chemistry B</i> , <b>2016</b> , 4, 6930-6941	7.3	55
72	The roles of matrix polymer crystallinity and hydroxyapatite nanoparticles in modulating material properties of photo-crosslinked composites and bone marrow stromal cell responses. <i>Biomaterials</i> , <b>2009</b> , 30, 3359-70	15.6	53
71	Effective nerve cell modulation by electrical stimulation of carbon nanotube embedded conductive polymeric scaffolds. <i>Biomaterials Science</i> , <b>2018</b> , 6, 2375-2385	7.4	51
70	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. <i>Tissue Engineering - Part A</i> , <b>2009</b> , 15, 587-94	3.9	45
69	Non-invasive monitoring of BMP-2 retention and bone formation in composites for bone tissue engineering using SPECT/CT and scintillation probes. <i>Journal of Controlled Release</i> , <b>2009</b> , 134, 169-76	11.7	45

68	Characterization of porous injectable poly-(propylene fumarate)-based bone graft substitute. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2008</b> , 85, 1114-9	5.4	40
67	Cross-linking characteristics and mechanical properties of an injectable biomaterial composed of polypropylene fumarate and polycaprolactone co-polymer. <i>Journal of Biomaterials Science, Polymer Edition</i> , <b>2011</b> , 22, 489-504	3.5	39
66	In vivo biodegradation and biocompatibility of PEG/sebacic acid-based hydrogels using a cage implant system. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2010</b> , 95, 191-7	5.4	39
65	Molecularly Engineered Biodegradable Polymer Networks with a Wide Range of Stiffness for Bone and Peripheral Nerve Regeneration. <i>Advanced Functional Materials</i> , <b>2015</b> , 25, 2715-2724	15.6	38
64	Electrically conductive nanocomposite hydrogels embedded with functionalized carbon nanotubes for spinal cord injury. <i>New Journal of Chemistry</i> , <b>2018</b> , 42, 17671-17681	3.6	35
63	3D-printed scaffolds with carbon nanotubes for bone tissue engineering: Fast and homogeneous one-step functionalization. <i>Acta Biomaterialia</i> , <b>2020</b> , 111, 129-140	10.8	32
62	Enhanced bone morphogenetic protein-2-induced ectopic and orthotopic bone formation by intermittent parathyroid hormone (1-34) administration. <i>Tissue Engineering - Part A</i> , <b>2010</b> , 16, 3769-77	3.9	32
61	Novel biodegradable poly(propylene fumarate)-poly(L-lactic acid) porous scaffolds fabricated by phase separation for tissue engineering applications. <i>RSC Advances</i> , <b>2015</b> , 5, 21301-21309	3.7	30
60	Poly(E-caprolactone) Dendrimer Cross-Linked via Metal-Free Click Chemistry: Injectable Hydrophobic Platform for Tissue Engineering. <i>ACS Macro Letters</i> , <b>2016</b> , 5, 1261-1265	6.6	29
59	Nanocomposite bone scaffolds based on biodegradable polymers and hydroxyapatite. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2015</b> , 103, 2549-57	5.4	28
58	Biodegradable and crosslinkable PPF-PLGA-PEG self-assembled nanoparticles dual-decorated with folic acid ligands and rhodamine B fluorescent probes for targeted cancer imaging.. <i>RSC Advances</i> , <b>2015</b> , 5, 33275-33282	3.7	25
57	Tissue engineered constructs: perspectives on clinical translation. <i>Annals of Biomedical Engineering</i> , <b>2015</b> , 43, 796-804	4.7	24
56	Tunable tissue scaffolds fabricated by crosslink in phase separation system. <i>RSC Advances</i> , <b>2015</b> , 5, 100824-100833	3.7	24
55	Expansile crosslinked polymersomes for pH sensitive delivery of doxorubicin. <i>Biomaterials Science</i> , <b>2016</b> , 4, 245-9	7.4	22
54	Bone morphogenetic protein-2 release profile modulates bone formation in phosphorylated hydrogel. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , <b>2018</b> , 12, 1339-1351	4.4	21
53	Biomechanical evaluation of an injectable radiopaque polypropylene fumarate cement for kyphoplasty in a cadaveric osteoporotic vertebral compression fracture model. <i>Journal of Spinal Disorders and Techniques</i> , <b>2007</b> , 20, 604-9		21
52	Phosphate Functional Groups Improve Oligo[(Polyethylene Glycol) Fumarate] Osteoconduction and BMP-2 Osteoinductive Efficacy. <i>Tissue Engineering - Part A</i> , <b>2018</b> , 24, 819-829	3.9	19
51	Non-invasive screening method for simultaneous evaluation of in vivo growth factor release profiles from multiple ectopic bone tissue engineering implants. <i>Journal of Controlled Release</i> , <b>2008</b> , 130, 15-21	11.7	19

50	Strontium-substituted hydroxyapatite stimulates osteogenesis on poly(propylene fumarate) nanocomposite scaffolds. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2019</b> , 107, 631-642	5.4	19
49	Effect of different sustained bone morphogenetic protein-2 release kinetics on bone formation in poly(propylene fumarate) scaffolds. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , <b>2018</b> , 106, 477-487	3.5	18
48	Biomechanical evaluation of an injectable and biodegradable copolymer P(PF-co-CL) in a cadaveric vertebral body defect model. <i>Tissue Engineering - Part A</i> , <b>2014</b> , 20, 1096-102	3.9	18
47	Development of biodegradable poly(propylene fumarate)/poly(lactic-co-glycolic acid) blend microspheres. I. Preparation and characterization. <i>Journal of Biomedical Materials Research Part B</i> , <b>2004</b> , 70, 283-92		18
46	Polymeric Biomaterials for Tissue Engineering Applications 2011. <i>International Journal of Polymer Science</i> , <b>2011</b> , 2011, 1-2	2.4	17
45	Injectable Electrical Conductive and Phosphate Releasing Gel with Two-Dimensional Black Phosphorus and Carbon Nanotubes for Bone Tissue Engineering. <i>ACS Biomaterials Science and Engineering</i> , <b>2020</b> , 6, 4653-4665	5.5	15
44	Novel porous poly(propylene fumarate-co-caprolactone) scaffolds fabricated by thermally induced phase separation. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2017</b> , 105, 226-235	5.4	15
43	Enhanced nerve cell proliferation and differentiation on electrically conductive scaffolds embedded with graphene and carbon nanotubes. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2021</b> , 109, 193-206	5.4	14
42	3D bioprinting of oligo(poly[ethylene glycol] fumarate) for bone and nerve tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2021</b> , 109, 6-17	5.4	12
41	Are DXA/aBMD and QCT/FEA Stiffness and Strength Estimates Sensitive to Sex and Age?. <i>Annals of Biomedical Engineering</i> , <b>2017</b> , 45, 2847-2856	4.7	11
40	Noninvasive Failure Load Prediction of Vertebrae with Simulated Lytic Defects and Biomaterial Augmentation. <i>Tissue Engineering - Part C: Methods</i> , <b>2016</b> , 22, 717-24	2.9	11
39	Effects of composite formulation on the mechanical properties of biodegradable poly(propylene fumarate)/bone fiber scaffolds. <i>International Journal of Polymer Science</i> , <b>2010</b> , 2010,	2.4	11
38	Hydrolysable core crosslinked particle for receptor-mediated pH-sensitive anticancer drug delivery. <i>New Journal of Chemistry</i> , <b>2015</b> , 39, 8840-8847	3.6	10
37	Fast functionalization of ultrasound microbubbles using strain promoted click chemistry. <i>Biomaterials Science</i> , <b>2018</b> , 6, 623-632	7.4	10
36	Injectable Catalyst-Free Poly(Propylene Fumarate) System Cross-Linked by Strain Promoted Alkyne-Azide Cycloaddition Click Chemistry for Spine Defect Filling. <i>Biomacromolecules</i> , <b>2019</b> , 20, 3352-3365	6.9	10
35	A New Vertebral Body Replacement Strategy Using Expandable Polymeric Cages. <i>Tissue Engineering - Part A</i> , <b>2017</b> , 23, 223-232	3.9	10
34	Rapid conjugation of nanoparticles, proteins and siRNAs to microbubbles by strain-promoted click chemistry for ultrasound imaging and drug delivery. <i>Polymer Chemistry</i> , <b>2019</b> , 10, 705-717	4.9	9
33	Poly(Propylene Fumarate)-Hydroxyapatite Nanocomposite Can Be a Suitable Candidate for Cervical Cages. <i>Journal of Biomechanical Engineering</i> , <b>2018</b> , 140,	2.1	9

32	Phosphate functionalization and enzymatic calcium mineralization synergistically enhance oligo[poly(ethylene glycol) fumarate] hydrogel osteoconductivity for bone tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2020</b> , 108, 515-527	5.4	9
31	The trabecular effect: A population-based longitudinal study on age and sex differences in bone mineral density and vertebral load bearing capacity. <i>Clinical Biomechanics</i> , <b>2018</b> , 55, 73-78	2.2	8
30	2D phosphorene nanosheets, quantum dots, nanoribbons: synthesis and biomedical applications. <i>Biomaterials Science</i> , <b>2021</b> , 9, 2768-2803	7.4	8
29	Three-dimensional porous poly(propylene fumarate)-co-poly(lactic-co-glycolic acid) scaffolds for tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2018</b> , 106, 2507-2517	5.4	7
28	Development of biodegradable and injectable macromers based on poly(ethylene glycol) and diacid monomers. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2009</b> , 90, 1010-20	5.4	7
27	STIM1 expression is associated with osteosarcoma cell survival. <i>Chinese Journal of Cancer Research: Official Journal of China Anti-Cancer Association, Beijing Institute for Cancer Research</i> , <b>2019</b> , 31, 203-211	3.8	6
26	Hydrogel-PLGA delivery system prolongs 2-methoxyestradiol-mediated anti-tumor effects in osteosarcoma cells. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2013</b> , 101, 2491-9	5.4	6
25	Bifunctional hydrogel for potential vascularized bone tissue regeneration. <i>Materials Science and Engineering C</i> , <b>2021</b> , 124, 112075	8.3	6
24	Effect of Biomaterial Electrical Charge on Bone Morphogenetic Protein-2-Induced Bone Formation. <i>Tissue Engineering - Part A</i> , <b>2019</b> , 25, 1037-1052	3.9	6
23	Poly(Caprolactone Fumarate) and Oligo[Poly(Ethylene Glycol) Fumarate]: Two Decades of Exploration in Biomedical Applications. <i>Polymer Reviews</i> , <b>2021</b> , 61, 319-356	14	6
22	In Vitro and In Vivo Correlation of Bone Morphogenetic Protein-2 Release Profiles from Complex Delivery Vehicles. <i>Tissue Engineering - Part C: Methods</i> , <b>2018</b> , 24, 379-390	2.9	6
21	Cross-linkable graphene oxide embedded nanocomposite hydrogel with enhanced mechanics and cytocompatibility for tissue engineering. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2018</b> , 106, 1247-1257	5.4	5
20	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). <i>Gastrointestinal Endoscopy</i> , <b>2019</b> , 89, 422-428	5.2	5
19	Composite Hydrogel Embedded with Porous Microspheres for Long-Term pH-Sensitive Drug Delivery. <i>Tissue Engineering - Part A</i> , <b>2019</b> , 25, 172-182	3.9	5
18	The Osteoinductive Effect of Controlled Bone Morphogenetic Protein 2 Release Is Location Dependent. <i>Tissue Engineering - Part A</i> , <b>2019</b> , 25, 193-202	3.9	4
17	Mechanical testing setups affect spine segment fracture outcomes. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2019</b> , 100, 103399	4.1	4
16	Proximal Cadaveric Femur Preparation for Fracture Strength Testing and Quantitative CT-based Finite Element Analysis. <i>Journal of Visualized Experiments</i> , <b>2017</b> ,	1.6	4
15	Injectable catalyst-free "click" organic-inorganic nanohybrid (click-ON) cement for minimally invasive in vivo bone repair. <i>Biomaterials</i> , <b>2021</b> , 276, 121014	15.6	4

14	Method and Instrumented Fixture for Femoral Fracture Testing in a Sideways Fall-on-the-Hip Position. <i>Journal of Visualized Experiments</i> , <b>2017</b> ,	1.6	3
13	Effects of dynamic fluid pressure on chondrocytes cultured in biodegradable poly(glycolic acid) fibrous scaffolds. <i>Tissue Engineering</i> , <b>2005</b> , 11, 1852-9		3
12	Mesenchymal stem cell spheroids incorporated with collagen and black phosphorus promote osteogenesis of biodegradable hydrogels. <i>Materials Science and Engineering C</i> , <b>2021</b> , 121, 111812	8.3	3
11	Three-dimensional surface strain analyses of simulated defect and augmented spine segments: A biomechanical cadaveric study. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , <b>2021</b> , 119, 104559	4.1	3
10	A Method to Estimate Cadaveric Femur Cortical Strains During Fracture Testing Using Digital Image Correlation. <i>Journal of Visualized Experiments</i> , <b>2017</b> ,	1.6	2
9	A comparative study on cylindrical and spherical models in fabrication of bone tissue engineering scaffolds: Finite element simulation and experiments. <i>Materials and Design</i> , <b>2021</b> , 211, 110150	8.1	2
8	Spatial and uniform deposition of cell-laden constructs on 3D printed composite phosphorylated hydrogels for improved osteoblast responses. <i>Journal of Materials Science</i> , <b>2021</b> , 56, 17768-17784	4.3	2
7	CT-based structural analyses of vertebral fractures with polymeric augmentation: A study of cadaveric three-level spine segments. <i>Computers in Biology and Medicine</i> , <b>2021</b> , 133, 104395	7	1
6	SDF-1/OPF/BP Composites Enhance the Migrating and Osteogenic Abilities of Mesenchymal Stem Cells. <i>Stem Cells International</i> , <b>2021</b> , 2021, 1938819	5	1
5	Black phosphorus incorporation modulates nanocomposite hydrogel properties and subsequent MC3T3 cell attachment, proliferation, and differentiation. <i>Journal of Biomedical Materials Research - Part A</i> , <b>2021</b> , 109, 1633-1645	5.4	0
4	Single-level subject-specific finite element model can predict fracture outcomes in three-level spine segments under different loading rates. <i>Computers in Biology and Medicine</i> , <b>2021</b> , 137, 104833	7	0
3	Zinc-doped hydroxyapatite and poly(propylene fumarate) nanocomposite scaffold for bone tissue engineering. <i>Journal of Materials Science</i> , <b>2022</b> , 57, 5998-6012	4.3	0
2	Two-dimensional nanomaterials-added dynamism in 3D printing and bioprinting of biomedical platforms: Unique opportunities and challenges.. <i>Biomaterials</i> , <b>2022</b> , 284, 121507	15.6	0
1	Injectable pH-responsive adhesive hydrogels for bone tissue engineering inspired by the underwater attachment strategy of marine mussels.. <i>Materials Science and Engineering C</i> , <b>2021</b> , 112606	8.3	0