Peng Shuping

List of Publications by Year
in descending order

75 papers	4,370 citations	101543 36 h-index	110387 64 g-index
75 all docs	75 docs citations	75 times ranked	3581 citing authors

#	Article	IF	Citations
1	Bone biomaterials and interactions with stem cells. Bone Research, 2017, 5, 17059.	11.4	503
2	A strawberry-like Ag-decorated barium titanate enhances piezoelectric and antibacterial activities of polymer scaffold. Nano Energy, 2020, 74, 104825.	16.0	264
3	Mg bone implant: Features, developments and perspectives. Materials and Design, 2020, 185, 108259.	7.0	251
4	Accelerated degradation of HAP/PLLA bone scaffold by PGA blending facilitates bioactivity and osteoconductivity. Bioactive Materials, 2021, 6, 490-502.	15.6	236
5	Carbon nanotube, graphene and boron nitride nanotube reinforced bioactive ceramics for bone repair. Acta Biomaterialia, 2017, 61, 1-20.	8.3	170
6	Biodegradable metallic bone implants. Materials Chemistry Frontiers, 2019, 3, 544-562.	5.9	150
7	Microstructure evolution and texture tailoring of reduced graphene oxide reinforced Zn scaffold. Bioactive Materials, 2021, 6, 1230-1241.	15.6	132
8	Molybdenum disulfide nanosheets embedded with nanodiamond particles: co-dispersion nanostructures as reinforcements for polymer scaffolds. Applied Materials Today, 2019, 17, 216-226.	4.3	116
9	Functionalized BaTiO3 enhances piezoelectric effect towards cell response of bone scaffold. Colloids and Surfaces B: Biointerfaces, 2020, 185, 110587.	5.0	102
10	A magnetic micro-environment in scaffolds for stimulating bone regeneration. Materials and Design, 2020, 185, 108275.	7.0	101
11	Laser additive manufacturing of Zn-2Al part for bone repair: Formability, microstructure and properties. Journal of Alloys and Compounds, 2019, 798, 606-615.	5.5	93
12	Characterizations and interfacial reinforcement mechanisms of multicomponent biopolymer based scaffold. Materials Science and Engineering C, 2019, 100, 809-825.	7.3	90
13	Laser additive manufacturing of Mg-based composite with improved degradation behaviour. Virtual and Physical Prototyping, 2020, 15, 278-293.	10.4	82
14	Graphene oxide assists polyvinylidene fluoride scaffold to reconstruct electrical microenvironment of bone tissue. Materials and Design, 2020, 190, 108564.	7.0	81
15	Nano-SiC reinforced Zn biocomposites prepared via laser melting: Microstructure, mechanical properties and biodegradability. Journal of Materials Science and Technology, 2019, 35, 2608-2617.	10.7	80
16	Highly biodegradable and bioactive Fe-Pd-bredigite biocomposites prepared by selective laser melting. Journal of Advanced Research, 2019, 20, 91-104.	9.5	75
17	TiO₂-Induced In Situ Reaction in Graphene Oxide-Reinforced AZ61 Biocomposites to Enhance the Interfacial Bonding. ACS Applied Materials & Interfaces, 2020, 12, 23464-23473.	8.0	69
18	Magnetically actuated bone scaffold: Microstructure, cell response and osteogenesis. Composites Part B: Engineering, 2020, 192, 107986.	12.0	67

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19	Mechanical Alloying of Immiscible Metallic Systems: Process, Microstructure, and Mechanism. Advanced Engineering Materials, 2021, 23, 2001098.	3.5	67
20	Metal organic frameworks as a compatible reinforcement in a biopolymer bone scaffold. Materials Chemistry Frontiers, 2020, 4, 973-984.	5.9	67
21	Rare earth improves strength and creep resistance of additively manufactured Zn implants. Composites Part B: Engineering, 2021, 216, 108882.	12.0	66
22	nMgO-incorporated PLLA bone scaffolds: Enhanced crystallinity and neutralized acidic products. Materials and Design, 2019, 174, 107801.	7.0	58
23	Interfacial strengthening by reduced graphene oxide coated with MgO in biodegradable Mg composites. Materials and Design, 2020, 191, 108612.	7.0	57
24	Synthesis of a mace-like cellulose nanocrystal@Ag nanosystem via in-situ growth for antibacterial activities of poly-L-lactide scaffold. Carbohydrate Polymers, 2021, 262, 117937.	10.2	56
25	Degradation mechanisms and acceleration strategies of poly (lactic acid) scaffold for bone regeneration. Materials and Design, 2021, 210, 110066.	7.0	53
26	Linc02349 promotes osteogenesis of human umbilical cordâ€derived stem cells by acting as a competing endogenous RNA for miRâ€25â€3p and miRâ€33bâ€5p. Cell Proliferation, 2020, 53, e12814.	5.3	52
27	Coreâ€“shell-Structured ZIF-8@PDA-HA with Controllable Zinc Ion Release and Superior Bioactivity for Improving a Poly-<scp>l</scp>-lactic Acid Scaffold. ACS Sustainable Chemistry and Engineering, 2021, 9, 1814-1825.	6.7	50
28	3D Printed Zn-doped Mesoporous Silica-incorporated Poly-L-lactic Acid Scaffolds for Bone Repair. International Journal of Bioprinting, 2021, 7, 346.	3.4	49
29	A bifunctional bone scaffold combines osteogenesis and antibacterial activity via in situ grown hydroxyapatite and silver nanoparticles. Bio-Design and Manufacturing, 2021, 4, 452-468.	7.7	48
30	Phosphonic Acid Coupling Agent Modification of HAP Nanoparticles: Interfacial Effects in PLLA/HAP Bone Scaffold. Polymers, 2020, 12, 199.	4.5	47
31	Constructing core-shell structured BaTiO3@carbon boosts piezoelectric activity and cell response of polymer scaffolds. Materials Science and Engineering C, 2021, 126, 112129.	7.3	47
32	Surface modification enhances interfacial bonding in PLLA/MgO bone scaffold. Materials Science and Engineering C, 2020, 108, 110486.	7.3	46
33	Dual alloying improves the corrosion resistance of biodegradable Mg alloys prepared by selective laser melting. Journal of Magnesium and Alloys, 2021, 9, 305-316.	11.9	45
34	Magnetostrictive alloys: Promising materials for biomedical applications. Bioactive Materials, 2022, 8, 177-195.	15.6	44
35	Advances in the occurrence and biotherapy of osteoporosis. Biochemical Society Transactions, 2020, 48, 1623-1636.	3.4	42
36	A co-dispersed nanosystem of strontium-anchored reduced graphene oxide to enhance the bioactivity and mechanical property of polymer scaffolds. Materials Chemistry Frontiers, 2021, 5, 2373-2386.	5.9	41

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37	In-situ deposition of apatite layer to protect Mg-based composite fabricated via laser additive manufacturing. Journal of Magnesium and Alloys, 2023, 11, 629-640.	11.9	36
38	Transcrystalline growth of PLLA on carbon fiber grafted with nano-SiO2 towards boosting interfacial bonding in bone scaffold. Biomaterials Research, 2022, 26, 2.	6.9	35
39	In Situ Growth of a Metalâ€"Organic Framework on Graphene Oxide for the Chemo-Photothermal Therapy of Bacterial Infection in Bone Repair. ACS Applied Materials & Interfaces, 2022, 14, 21996-22005.	8.0	35
40	Silver-doped bioglass modified scaffolds: A sustained antibacterial efficacy. Materials Science and Engineering C, 2021, 129, 112425.	7.3	33
41	Pre-oxidation induced in situ interface strengthening in biodegradable Zn/nano-SiC composites prepared by selective laser melting. Journal of Advanced Research, 2022, 38, 143-155.	9.5	33
42	Cu ions and cetyltrimethylammonium bromide loaded into montmorillonite: a synergistic antibacterial system for bone scaffolds. Materials Chemistry Frontiers, 2021, 6, 103-116.	5.9	31
43	A peritectic phase refines the microstructure and enhances Zn implants. Journal of Materials Research and Technology, 2020, 9, 2623-2634.	5.8	30
44	Water-responsive shape memory thermoplastic polyurethane scaffolds triggered at body temperature for bone defect repair. Materials Chemistry Frontiers, 2022, 6, 1456-1469.	5.9	30
45	Dilemma and breakthrough of biodegradable poly-l-lactic acid in bone tissue repair. Journal of Materials Research and Technology, 2022, 17, 2369-2387.	5.8	28
46	Silver-decorated black phosphorus: a synergistic antibacterial strategy. Nanotechnology, 2022, 33, 245708.	2.6	28
47	Magnetic-driven wireless electrical stimulation in a scaffold. Composites Part B: Engineering, 2022, 237, 109864.	12.0	28
48	Magnetostrictive bulk Fe-Ga alloys prepared by selective laser melting for biodegradable implant applications. Materials and Design, 2022, 220, 110861.	7.0	28
49	Amorphous magnesium alloy with high corrosion resistance fabricated by laser powder bed fusion. Journal of Alloys and Compounds, 2022, 897, 163247.	5.5	27
50	Nitrogen-doped carbon-ZnO heterojunction derived from ZIF-8: a photocatalytic antibacterial strategy for scaffold. Materials Today Nano, 2022, 18, 100210.	4.6	27
51	Sr²⁺ Sustained Release System Augments Bioactivity of Polymer Scaffold. ACS Applied Polymer Materials, 2022, 4, 2691-2702.	4.4	26
52	Nd-induced honeycomb structure of intermetallic phase enhances the corrosion resistance of Mg alloys for bone implants. Journal of Materials Science: Materials in Medicine, 2017, 28, 130.	3.6	25
53	Construction of a stereocomplex between poly(<scp>d</scp>-lactide) grafted hydroxyapatite and poly(<scp>l</scp>-lactide): toward a bioactive composite scaffold with enhanced interfacial bonding. Journal of Materials Chemistry B, 2022, 10, 214-223.	5.8	25
54	Hydroxyapatite nanoparticles in situ grown on carbon nanotube as a reinforcement for poly (Îµ-caprolactone) bone scaffold. Materials Today Advances, 2022, 15, 100272.	5.2	25

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55	Biosilicate scaffolds for bone regeneration: influence of introducing SrO. RSC Advances, 2017, 7, 21749-21757.	3.6	23
56	Polydopamine modified polycaprolactone powder for fabrication bone scaffold owing intrinsic bioactivity. Journal of Materials Research and Technology, 2021, 15, 3375-3385.	5.8	23
57	A conductive network enhances nerve cell response. Additive Manufacturing, 2022, 52, 102694.	3.0	23
58	Surface-Modified Graphene Oxide with Compatible Interface Enhances Poly-L-Lactic Acid Bone Scaffold. Journal of Nanomaterials, 2020, 2020, 1-11.	2.7	22
59	<i>In situ</i> grown rare earth lanthanum on carbon nanofibre for interfacial reinforcement in Zn implants. Virtual and Physical Prototyping, 2022, 17, 700-717.	10.4	22
60	Bioactivity Improvement of Forsterite-Based Scaffolds with nano-58S Bioactive Glass. Materials and Manufacturing Processes, 2014, 29, 877-884.	4.7	21
61	Strong corrosion induced by carbon nanotubes to accelerate Fe biodegradation. Materials Science and Engineering C, 2019, 104, 109935.	7.3	18
62	Polyaniline Protrusions on MoS₂ Nanosheets for PVDF Scaffolds with Improved Electrical Stimulation. ACS Applied Nano Materials, 2021, 4, 13955-13966.	5.0	15
63	Bioceramic enhances the degradation and bioactivity of iron bone implant. Materials Research Express, 2019, 6, 115401.	1.6	13
64	Crystallinity and Reinforcement in Poly-L-Lactic Acid Scaffold Induced by Carbon Nanotubes. Advances in Polymer Technology, 2019, 2019, 1-10.	1.7	12
65	Copper-doped mesoporous bioactive glass endows magnesium-based scaffold with antibacterial activity and corrosion resistance. Materials Chemistry Frontiers, 2021, 5, 7228-7240.	5.9	7
66	Peritectic-eutectic transformation of intermetallic in Zn alloy: Effects of Mn on the microstructure, strength and ductility. Materials Characterization, 2022, 190, 112054.	4.4	7
67	In-situ grown Ag on magnetic halloysite nanotubes in scaffolds: Antibacterial, biocompatibility and mechanical properties. Ceramics International, 2021, 47, 32756-32765.	4.8	6
68	Emerging role of m6A modification in osteogenesis of stem cells. Journal of Bone and Mineral Metabolism, 2022, 40, 177-188.	2.7	6
69	Refined Lamellar Eutectic in Biomedical Znâ€"Alâ€"Zr Alloys for Mechanical Reinforcement. Advanced Engineering Materials, 2019, 21, 1801322.	3.5	5
70	Polydopamine-decorated black phosphorous to enhance stability in polymer scaffold. Nanotechnology, 2021, 32, 455701.	2.6	5
71	A dual redox system for enhancing the biodegradability of Fe-C-Cu composite scaffold. Colloids and Surfaces B: Biointerfaces, 2022, 213, 112431.	5.0	5
72	A Continuous MgF 2 Network Structure Encapsulated Mg Alloy Prepared by Selective Laser Melting for Enhanced Biodegradation Resistance. Advanced Engineering Materials, 2021, 23, 2100389.	3.5	4

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73	Galvanic corrosion induced by heterogeneous bimodal grain structures in Fe-Mn implant. Materials Characterization, 2021, 180, 111445.	4.4	3
74	Mesoporous Carbon as Galvanic-Corrosion Activator Accelerates Fe Degradation. Applied Sciences (Switzerland), 2020, 10, 2487.	2.5	2
75	Stress-Induced Dual-Phase Structure to Accelerate Degradation of the Fe Implant. ACS Biomaterials Science and Engineering, 2022, 8, 1841-1851.	5.2	1