Guo-Xin Tan

List of Publications by Year
in descending order

62	3,414	185998 28	149479 56
papers	citations	h-index	g-index

66	66	66	4238
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanomaterials as photothermal therapeutic agents. Progress in Materials Science, 2019, 99, 1-26.	16.0	442
2	Soft Conducting Polymer Hydrogels Cross-Linked and Doped by Tannic Acid for Spinal Cord Injury Repair. ACS Nano, 2018, 12, 10957-10967.	7.3	246
3	Electroactive polymers for tissue regeneration: Developments and perspectives. Progress in Polymer Science, 2018, 81, 144-162.	11.8	225
4	Concentration Ranges of Antibacterial Cations for Showing the Highest Antibacterial Efficacy but the Least Cytotoxicity against Mammalian Cells: Implications for a New Antibacterial Mechanism. Chemical Research in Toxicology, 2015, 28, 1815-1822.	1.7	217
5	Directing Induced Pluripotent Stem Cell Derived Neural Stem Cell Fate with a Three-Dimensional Biomimetic Hydrogel for Spinal Cord Injury Repair. ACS Applied Materials & Interfaces, 2018, 10, 17742-17755.	4.0	185
6	Injectable Selfâ€Healing Natural Biopolymerâ€Based Hydrogel Adhesive with Thermoresponsive Reversible Adhesion for Minimally Invasive Surgery. Advanced Functional Materials, 2021, 31, 2007457.	7.8	160
7	A Tough and Self-Powered Hydrogel for Artificial Skin. Chemistry of Materials, 2019, 31, 9850-9860.	3.2	151
8	Exosomesâ€Loaded Electroconductive Hydrogel Synergistically Promotes Tissue Repair after Spinal Cord Injury via Immunoregulation and Enhancement of Myelinated Axon Growth. Advanced Science, 2022, 9, e2105586.	5.6	117
9	Hybrid gelatin/oxidized chondroitin sulfate hydrogels incorporating bioactive glass nanoparticles with enhanced mechanical properties, mineralization, and osteogenic differentiation. Bioactive Materials, 2021, 6, 890-904.	8.6	89
10	Biomimetic mineralization of anionic gelatin hydrogels: effect of degree of methacrylation. RSC Advances, 2014, 4, 21997-22008.	1.7	77
11	Cell-laden photocrosslinked GelMAâ€“DexMA copolymer hydrogels with tunable mechanical properties for tissue engineering. Journal of Materials Science: Materials in Medicine, 2014, 25, 2173-2183.	1.7	76
12	Exosome-functionalized polyetheretherketone-based implant with immunomodulatory property for enhancing osseointegration. Bioactive Materials, 2021, 6, 2754-2766.	8.6	75
13	An injectable, self-healing, electroconductive extracellular matrix-based hydrogel for enhancing tissue repair after traumatic spinal cord injury. Bioactive Materials, 2022, 7, 98-111.	8.6	73
14	The synergistic antibacterial activity and mechanism of multicomponent metal ions-containing aqueous solutions against Staphylococcus aureus. Journal of Inorganic Biochemistry, 2016, 163, 214-220.	1.5	68
15	Bone-Inspired Spatially Specific Piezoelectricity Induces Bone Regeneration. Theranostics, 2017, 7, 3387-3397.	4.6	67
16	Biomimetically-mineralized composite coatings on titanium functionalized with gelatin methacrylate hydrogels. Applied Surface Science, 2013, 279, 293-299.	3.1	64
17	Tunable Mechanical, Antibacterial, and Cytocompatible Hydrogels Based on a Functionalized Dual Network of Metal Coordination Bonds and Covalent Crosslinking. ACS Applied Materials & Interfaces, 2018, 10, 6190-6198.	4.0	61
18	Surface-Selective Preferential Production of Reactive Oxygen Species on Piezoelectric Ceramics for Bacterial Killing. ACS Applied Materials & Interfaces, 2016, 8, 24306-24309.	4.0	60

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19	Facile Soaking Strategy Toward Simultaneously Enhanced Conductivity and Toughness of Self-Healing Composite Hydrogels Through Constructing Multiple Noncovalent Interactions. ACS Applied Materials & Interfaces, 2018, 10, 19133-19142.	4.0	56
20	Extracellular Matrixâ€Based Conductive Interpenetrating Network Hydrogels with Enhanced Neurovascular Regeneration Properties for Diabetic Wounds Repair. Advanced Healthcare Materials, 2022, 11, e2101556.	3.9	53
21	Fabrication of Biocompatible Potassium Sodium Niobate Piezoelectric Ceramic as an Electroactive Implant. Materials, 2017, 10, 345.	1.3	52
22	The antibacterial effect of potassium-sodium niobate ceramics based on controlling piezoelectric properties. Colloids and Surfaces B: Biointerfaces, 2019, 175, 463-468.	2.5	52
23	Synthesis and Characterization of Injectable Photocrosslinking Poly (ethylene glycol) Diacrylate based Hydrogels. Polymer Bulletin, 2008, 61, 91-98.	1.7	48
24	Built-in microscale electrostatic fields induced by anataseâ€“rutile-phase transition in selective areas promote osteogenesis. NPG Asia Materials, 2016, 8, e243-e243.	3.8	41
25	Reversibly Controlling Preferential Protein Adsorption on Bone Implants by Using an Applied Weak Potential as a Switch. Angewandte Chemie - International Edition, 2014, 53, 13068-13072.	7.2	40
26	Polarization of an electroactive functional film on titanium for inducing osteogenic differentiation. Scientific Reports, 2016, 6, 35512.	1.6	38
27	Palladium nanoparticles entrapped in a self-supporting nanoporous gold wire as sensitive dopamine biosensor. Scientific Reports, 2017, 7, 7941.	1.6	38
28	Corrosion mechanism of micro-arc oxidation treated biocompatible AZ31 magnesium alloy in simulated body fluid. Progress in Natural Science: Materials International, 2014, 24, 516-522.	1.8	33
29	Self-curling electroconductive nerve dressing for enhancing peripheral nerve regeneration in diabetic rats. Bioactive Materials, 2021, 6, 3892-3903.	8.6	32
30	Polydopamineâ€Assisted Electrochemical Fabrication of Polypyrrole Nanofibers on Bone Implants to Improve Bioactivity. Macromolecular Materials and Engineering, 2016, 301, 1288-1294.	1.7	30
31	Polypyrrole Nanocones and Dynamic Piezoelectric Stimulation-Induced Stem Cell Osteogenic Differentiation. ACS Biomaterials Science and Engineering, 2019, 5, 4386-4392.	2.6	29
32	Ultrafast and On-Demand Oil/Water Separation Membrane System Based on Conducting Polymer Nanotip Arrays. Nano Letters, 2020, 20, 4895-4900.	4.5	28
33	Tough and Highly Efficient Underwater Selfâ€Repairing Hydrogels for Soft Electronics. Small Methods, 2022, 6, e2101513.	4.6	26
34	Wireless Electrochemotherapy by Selenium-Doped Piezoelectric Biomaterials to Enhance Cancer Cell Apoptosis. ACS Applied Materials & Interfaces, 2020, 12, 34505-34513.	4.0	22
35	Promoting Bone Mesenchymal Stem Cells and Inhibiting Bacterial Adhesion of Acid-Etched Nanostructured Titanium by Ultraviolet Functionalization. Journal of Materials Science and Technology, 2015, 31, 182-190.	5.6	19
36	Wireless electrical stimulation at the nanoscale interface induces tumor vascular normalization. Bioactive Materials, 2022, 18, 399-408.	8.6	19

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37	Hydroxyaptite nanorods patterned ZrO2 bilayer coating on zirconium for the application of percutaneous implants. Colloids and Surfaces B: Biointerfaces, 2015, 127, 8-14.	2.5	18
38	Tuning nano-architectures and improving bioactivity of conducting polypyrrole coating on bone implants by incorporating bone-borne small molecules. Journal of Materials Chemistry B, 2014, 2, 7872-7876.	2.9	17
39	Controlled oxidative nanopatterning of microrough titanium surfaces for improving osteogenic activity. Journal of Materials Science: Materials in Medicine, 2014, 25, 1875-1884.	1.7	17
40	Bioactive glass functionalized chondroitin sulfate hydrogel with proangiogenic properties. Biopolymers, 2019, 110, e23328.	1.2	16
41	Periodic Nanoneedle and Buffer Zones Constructed on a Titanium Surface Promote Osteogenic Differentiation and Bone Calcification In Vivo. Advanced Healthcare Materials, 2016, 5, 364-372.	3.9	15
42	Ti nanorod arrays with a medium density significantly promote osteogenesis and osteointegration. Scientific Reports, 2016, 6, 19047.	1.6	15
43	Incorporating catechol into electroactive polypyrrole nanowires on titanium to promote hydroxyapatite formation. Bioactive Materials, 2018, 3, 74-79.	8.6	15
44	A Multifunctional Metallohydrogel with Injectability, Selfâ€Healing, and Multistimulusâ€Responsiveness for Bioadhesives. Macromolecular Materials and Engineering, 2018, 303, 1800305.	1.7	15
45	Effects of argon plasma treatment on surface characteristic of photopolymerization PEGDAâ€“HEMA hydrogels. Journal of Applied Polymer Science, 2012, 124, 459-465.	1.3	14
46	Influence of Surrounding Cations on the Surface Degradation of Magnesium Alloy Implants under a Compressive Pressure. Langmuir, 2015, 31, 13561-13570.	1.6	14
47	A Dual-Bonded Approach for Improving Hydrogel Implant Stability in Cartilage Defects. Materials, 2017, 10, 191.	1.3	14
48	Chondroitin sulphate-guided construction of polypyrrole nanoarchitectures. Materials Science and Engineering C, 2015, 48, 172-178.	3.8	13
49	Antimicrobial Peptide Functionalized Conductive Nanowire Array Electrode as a Promising Candidate for Bacterial Environment Application. Advanced Functional Materials, 2019, 29, 1806353.	7.8	13
50	Potential-induced reversible switching in the tubular structure of conducting polypyrrole nanotube arrays. RSC Advances, 2013, 3, 14946.	1.7	12
51	Modification of biomaterials surface by mimetic cell membrane to improve biocompatibility. Frontiers of Materials Science, 2014, 8, 325-331.	1.1	12
52	Preparation, characterization, and drugâ€release properties of PEGâ€DAâ€based copolymer hydrogel microspheres. Journal of Applied Polymer Science, 2012, 125, 3509-3516.	1.3	11
53	Highly Waterâ€Dispersible, Highly Conductive, and Biocompatible Polypyrroleâ€Coated Silica Particles Stabilized and Doped by Chondroitin Sulfate. Particle and Particle Systems Characterization, 2015, 32, 1068-1077.	1.2	11
54	Controllable Protein Adsorption and Bacterial Adhesion on Polypyrrole Nanocone Arrays. Journal of Materials Science and Technology, 2016, 32, 950-955.	5.6	9

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55	Covalent Bonding of an Electroconductive Hydrogel to Goldâ€Coated Titanium Surfaces via Thiolâ€ene Click Chemistry. Macromolecular Materials and Engineering, 2016, 301, 1423-1429.	1.7	9
56	Conducting Polypyrrole Nanotube Arrays as an Implant Surface: Fabricated on Biomedical Titanium with Fineâ€Tunability by Means of Templateâ€Free Electrochemical Polymerization. ChemPlusChem, 2014, 79, 524-530.	1.3	7
57	Spatial charge manipulated set-selective apatite deposition on micropatterned piezoceramic. RSC Advances, 2017, 7, 32974-32981.	1.7	7
58	Large-scale functionalization of biomedical porous titanium scaffolds surface with TiO2 nanostructures. Science China Materials, 2018, 61, 557-564.	3.5	7
59	Endogenous electric field as a bridge for antibacterial ion transport from implant to bacteria. Science China Materials, 2020, 63, 1831-1841.	3.5	5
60	The innovation of biomaterials: From bioactive to bioelectroactive. Science China Materials, 2022, 65, 1723-1726.	3.5	4
61	Ti nanorod arrays with periodic density fabricated via anodic technology. Micro and Nano Letters, 2014, 9, 168-170.	0.6	2
62	Osteogenic Differentiation: Periodic Nanoneedle and Buffer Zones Constructed on a Titanium Surface Promote Osteogenic Differentiation and Bone Calcification In Vivo (Adv. Healthcare Mater. 3/2016). Advanced Healthcare Materials, 2016, 5, 300-300.	3.9	0