

# Lei Zhou

## List of Publications by Year in descending order

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Version: 2024-02-01

49  
papers

2,493  
citations

201674

27  
h-index

206112

48  
g-index

51  
all docs

51  
docs citations

51  
times ranked

2861  
citing authors

| #  | ARTICLE  | IF   | CITATIONS |
|----|--|------|-----------|
| 1  | Soft Conducting Polymer Hydrogels Cross-Linked and Doped by Tannic Acid for Spinal Cord Injury Repair. <i>ACS Nano</i> , 2018, 12, 10957-10967.  | 14.6 | 246       |
| 2  | Concentration Ranges of Antibacterial Cations for Showing the Highest Antibacterial Efficacy but the Least Cytotoxicity against Mammalian Cells: Implications for a New Antibacterial Mechanism. <i>Chemical Research in Toxicology</i> , 2015, 28, 1815-1822. | 3.3  | 217       |
| 3  | Directing Induced Pluripotent Stem Cell Derived Neural Stem Cell Fate with a Three-Dimensional Biomimetic Hydrogel for Spinal Cord Injury Repair. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 17742-17755.                                       | 8.0  | 185       |
| 4  | Injectable Self-Healing Natural Biopolymer-Based Hydrogel Adhesive with Thermoresponsive Reversible Adhesion for Minimally Invasive Surgery. <i>Advanced Functional Materials</i> , 2021, 31, 2007457.   | 14.9 | 160       |
| 5  | A Tough and Self-Powered Hydrogel for Artificial Skin. <i>Chemistry of Materials</i> , 2019, 31, 9850-9860.  | 6.7  | 151       |
| 6  | Exosomes-Loaded Electroconductive Hydrogel Synergistically Promotes Tissue Repair after Spinal Cord Injury via Immunoregulation and Enhancement of Myelinated Axon Growth. <i>Advanced Science</i> , 2022, 9, e2105586.  | 11.2 | 117       |
| 7  | Hybrid gelatin/oxidized chondroitin sulfate hydrogels incorporating bioactive glass nanoparticles with enhanced mechanical properties, mineralization, and osteogenic differentiation. <i>Bioactive Materials</i> , 2021, 6, 890-904.                          | 15.6 | 89        |
| 8  | Biomimetic mineralization of anionic gelatin hydrogels: effect of degree of methacrylation. <i>RSC Advances</i> , 2014, 4, 21997-22008.  | 3.6  | 77        |
| 9  | Cell-laden photocrosslinked GelMA-DexMA copolymer hydrogels with tunable mechanical properties for tissue engineering. <i>Journal of Materials Science: Materials in Medicine</i> , 2014, 25, 2173-2183.   | 3.6  | 76        |
| 10 | Fourth-generation biomedical materials. <i>Materials Today</i> , 2016, 19, 2-3.  | 14.2 | 75        |
| 11 | Exosome-functionalized polyetheretherketone-based implant with immunomodulatory property for enhancing osseointegration. <i>Bioactive Materials</i> , 2021, 6, 2754-2766.  | 15.6 | 75        |
| 12 | An injectable, self-healing, electroconductive extracellular matrix-based hydrogel for enhancing tissue repair after traumatic spinal cord injury. <i>Bioactive Materials</i> , 2022, 7, 98-111.   | 15.6 | 73        |
| 13 | Biomimetically-mineralized composite coatings on titanium functionalized with gelatin methacrylate hydrogels. <i>Applied Surface Science</i> , 2013, 279, 293-299.   | 6.1  | 64        |
| 14 | Tunable Mechanical, Antibacterial, and Cytocompatible Hydrogels Based on a Functionalized Dual Network of Metal Coordination Bonds and Covalent Crosslinking. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 6190-6198.                             | 8.0  | 61        |
| 15 | Surface-Selective Preferential Production of Reactive Oxygen Species on Piezoelectric Ceramics for Bacterial Killing. <i>ACS Applied Materials &amp; Interfaces</i> , 2016, 8, 24306-24309.  | 8.0  | 60        |
| 16 | Extracellular Matrix-Based Conductive Interpenetrating Network Hydrogels with Enhanced Neurovascular Regeneration Properties for Diabetic Wounds Repair. <i>Advanced Healthcare Materials</i> , 2022, 11, e2101556.  | 7.6  | 53        |
| 17 | Wearable sensors and devices for real-time cardiovascular disease monitoring. <i>Cell Reports Physical Science</i> , 2021, 2, 100541.  | 5.6  | 51        |
| 18 | Elastomeric conductive hybrid hydrogels with continuous conductive networks. <i>Journal of Materials Chemistry B</i> , 2019, 7, 2389-2397.   | 5.8  | 46        |

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|----|--|------|-----------|
| 19 | Biomimetic Ti-6Al-4V alloy/gelatin methacrylate hybrid scaffold with enhanced osteogenic and angiogenic capabilities for large bone defect restoration. <i>Bioactive Materials</i> , 2021, 6, 3437-3448.   | 15.6 | 43        |
| 20 | Inhibition of astrocytic differentiation of transplanted neural stem cells by chondroitin sulfate methacrylate hydrogels for the repair of injured spinal cord. <i>Biomaterials Science</i> , 2019, 7, 1995-2008.  | 5.4  | 39        |
| 21 | Palladium nanoparticles entrapped in a self-supporting nanoporous gold wire as sensitive dopamine biosensor. <i>Scientific Reports</i> , 2017, 7, 7941.  | 3.3  | 38        |
| 22 | Effect of Amino-, Methyl- and Epoxy-Silane Coupling as a Molecular Bridge for Formatting a Biomimetic Hydroxyapatite Coating on Titanium by Electrochemical Deposition. <i>Journal of Materials Science and Technology</i> , 2016, 32, 956-965.            | 10.7 | 34        |
| 23 | Injectable adhesive hemostatic gel with tumor acidity neutralizer and neutrophil extracellular traps lyase for enhancing adoptive NK cell therapy prevents post-resection recurrence of hepatocellular carcinoma. <i>Biomaterials</i> , 2022, 284, 121506. | 11.4 | 34        |
| 24 | Self-curling electroconductive nerve dressing for enhancing peripheral nerve regeneration in diabetic rats. <i>Bioactive Materials</i> , 2021, 6, 3892-3903.   | 15.6 | 32        |
| 25 | Efficient Synthesis of $\beta$ -Alkynyl $\alpha$ -Amino Acid Derivatives by a New Copper-Catalyzed Amine-Alkyne-Alkyne Addition Reaction. <i>Advanced Synthesis and Catalysis</i> , 2008, 350, 2226-2230.  | 4.3  | 30        |
| 26 | Polydopamine-Assisted Electrochemical Fabrication of Polypyrrole Nanofibers on Bone Implants to Improve Bioactivity. <i>Macromolecular Materials and Engineering</i> , 2016, 301, 1288-1294.   | 3.6  | 30        |
| 27 | Polypyrrole Nanocones and Dynamic Piezoelectric Stimulation-Induced Stem Cell Osteogenic Differentiation. <i>ACS Biomaterials Science and Engineering</i> , 2019, 5, 4386-4392.  | 5.2  | 29        |
| 28 | Ultrafast and On-Demand Oil/Water Separation Membrane System Based on Conducting Polymer Nanotip Arrays. <i>Nano Letters</i> , 2020, 20, 4895-4900.  | 9.1  | 28        |
| 29 | Electrically Reversible Redox-Switchable Polydopamine Films for Regulating Cell Behavior. <i>Electrochimica Acta</i> , 2017, 228, 343-350.   | 5.2  | 27        |
| 30 | OD/1D Heterojunction Implant with Electro-Mechanobiological Coupling Cues Promotes Osteogenesis. <i>Advanced Functional Materials</i> , 2021, 31, 2106249.   | 14.9 | 26        |
| 31 | Tough and Highly Efficient Underwater Self-Repairing Hydrogels for Soft Electronics. <i>Small Methods</i> , 2022, 6, e2101513.   | 8.6  | 26        |
| 32 | Wireless Electrochemotherapy by Selenium-Doped Piezoelectric Biomaterials to Enhance Cancer Cell Apoptosis. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 34505-34513.   | 8.0  | 22        |
| 33 | Controlled oxidative nanopatterning of microrough titanium surfaces for improving osteogenic activity. <i>Journal of Materials Science: Materials in Medicine</i> , 2014, 25, 1875-1884.   | 3.6  | 17        |
| 34 | Bioactive glass functionalized chondroitin sulfate hydrogel with proangiogenic properties. <i>Biopolymers</i> , 2019, 110, e23328.   | 2.4  | 16        |
| 35 | Incorporating catechol into electroactive polypyrrole nanowires on titanium to promote hydroxyapatite formation. <i>Bioactive Materials</i> , 2018, 3, 74-79.  | 15.6 | 15        |
| 36 | A Multifunctional Metallohydrogel with Injectability, Self-Healing, and Multistimulus-Responsiveness for Bioadhesives. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1800305.   | 3.6  | 15        |

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|----|--|------|-----------|
| 37 | Influence of Surrounding Cations on the Surface Degradation of Magnesium Alloy Implants under a Compressive Pressure. <i>Langmuir</i> , 2015, 31, 13561-13570.   | 3.5  | 14        |
| 38 | A Dual-Bonded Approach for Improving Hydrogel Implant Stability in Cartilage Defects. <i>Materials</i> , 2017, 10, 191.  | 2.9  | 14        |
| 39 | An Injectable Epigenetic Autophagic Modulatory Hydrogel for Boosting Umbilical Cord Blood NK Cell Therapy Prevents Postsurgical Relapse of Triple-Negative Breast Cancer. <i>Advanced Science</i> , 2022, 9, .               | 11.2 | 14        |
| 40 | Modification of biomaterials surface by mimetic cell membrane to improve biocompatibility. <i>Frontiers of Materials Science</i> , 2014, 8, 325-331.   | 2.2  | 12        |
| 41 | Highly Water-Dispersible, Highly Conductive, and Biocompatible Polypyrrole-Coated Silica Particles Stabilized and Doped by Chondroitin Sulfate. <i>Particle and Particle Systems Characterization</i> , 2015, 32, 1068-1077. | 2.3  | 11        |
| 42 | Bioinspired Polydopamine Functionalization of Titanium Surface for Silver Nanoparticles Immobilization with Antibacterial Property. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2014, 29, 1320.              | 1.3  | 10        |
| 43 | Injectable Tumor Microenvironment-Modulated Hydrogels with Enhanced Chemosensitivity and Osteogenesis for Tumor-Associated Bone Defects Closed-Loop Management. <i>Chemical Engineering Journal</i> , 2022, 450, 138086.     | 12.7 | 10        |
| 44 | Covalent Bonding of an Electroconductive Hydrogel to Gold-Coated Titanium Surfaces via Thiol-Ene Click Chemistry. <i>Macromolecular Materials and Engineering</i> , 2016, 301, 1423-1429.                                    | 3.6  | 9         |
| 45 | A built-in electric field with nanoscale distinction for cell behavior regulation. <i>Journal of Materials Chemistry B</i> , 2018, 6, 2723-2727.   | 5.8  | 8         |
| 46 | Endogenous electric field as a bridge for antibacterial ion transport from implant to bacteria. <i>Science China Materials</i> , 2020, 63, 1831-1841.  | 6.3  | 5         |
| 47 | Titanium Modification by Calcium Ion Chelated Polydopamine and Its Cytocompatibility. <i>Wuji Cailiao Xuebao/Journal of Inorganic Materials</i> , 2015, 30, 1075.  | 1.3  | 3         |
| 48 | The mechanism of pH-induced polydopamine films surface protonation and cell adhesion behavior. <i>Scientia Sinica Chimica</i> , 2016, 46, 373-381.   | 0.4  | 2         |
| 49 | A Nano-CuO doped sodium aluminosilicate composite ceramic with high efficiency against streptococcus mutans for dental restorative materials. <i>Ceramics International</i> , 2022, 48, 28578-28585.                         | 4.8  | 2         |