# Jingwei Xie

List of Publications by Year
in descending order

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|---|---|---|---|
| 102 papers | 9,482 citations | 41258 49 h-index | 38300 95 g-index |
| 104 all docs | 104 docs citations | 104 times ranked | 10998 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Electrospun Nanofibers: New Concepts, Materials, and Applications. Accounts of Chemical Research, 2017, 50, 1976-1987. | 7.6 | 826 |
| 2 | The differentiation of embryonic stem cells seeded on electrospun nanofibers into neural lineages. Biomaterials, 2009, 30, 354-362. | 5.7 | 420 |
| 3 | Electrospun nanofibers for neural tissue engineering. Nanoscale, 2010, 2, 35-44. | 2.8 | 328 |
| 4 | Electrospun Micro- and Nanofibers for Sustained Delivery of Paclitaxel to Treat C6 Glioma in Vitro. Pharmaceutical Research, 2006, 23, 1817-1826. | 1.7 | 311 |
| 5 | Nanofiber Scaffolds with Gradations in Mineral Content for Mimicking the Tendon-to-Bone Insertion Site. Nano Letters, 2009, 9, 2763-2768. | 4.5 | 310 |
| 6 | Putting Electrospun Nanofibers to Work for Biomedical Research. Macromolecular Rapid Communications, 2008, 29, 1775-1792. | 2.0 | 309 |
| 7 | Conductive Coreâ€“Sheath Nanofibers and Their Potential Application in Neural Tissue Engineering. Advanced Functional Materials, 2009, 19, 2312-2318. | 7.8 | 305 |
| 8 | Electrospinning: An enabling nanotechnology platform for drug delivery and regenerative medicine. Advanced Drug Delivery Reviews, 2018, 132, 188-213. | 6.6 | 285 |
| 9 | Recent advances in electrospun nanofibers for wound healing. Nanomedicine, 2017, 12, 1335-1352. | 1.7 | 282 |
| 10 | Radially Aligned, Electrospun Nanofibers as Dural Substitutes for Wound Closure and Tissue Regeneration Applications. ACS Nano, 2010, 4, 5027-5036. | 7.3 | 268 |
| 11 | Electrohydrodynamic atomization: A two-decade effort to produce and process micro-/nanoparticulate materials. Chemical Engineering Science, 2015, 125, 32-57. | 1.9 | 240 |
| 12 | Neurite Outgrowth on Nanofiber Scaffolds with Different Orders, Structures, and Surface Properties. ACS Nano, 2009, 3, 1151-1159. | 7.3 | 236 |
| 13 | 3D Bioprinting: from Benches to Translational Applications. Small, 2019, 15, e1805510. | 5.2 | 235 |
| 14 | Coating Electrospun Poly(Îµ-caprolactone) Fibers with Gelatin and Calcium Phosphate and Their Use as Biomimetic Scaffolds for Bone Tissue Engineering. Langmuir, 2008, 24, 14145-14150. | 1.6 | 226 |
| 15 | Electrohydrodynamic atomization for biodegradable polymeric particle production. Journal of Colloid and Interface Science, 2006, 302, 103-112. | 5.0 | 217 |
| 16 | â€œAligned-to-randomâ€•nanofiber scaffolds for mimicking the structure of the tendon-to-bone insertion site. Nanoscale, 2010, 2, 923. | 2.8 | 195 |
| 17 | Microparticles developed by electrohydrodynamic atomization for the local delivery of anticancer drug to treat C6 glioma in vitro. Biomaterials, 2006, 27, 3321-3332. | 5.7 | 185 |
| 18 | Complexation-induced resolution enhancement of 3D-printed hydrogel constructs. Nature Communications, 2020, 11, 1267. | 5.8 | 158 |

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|---|---|---|---|
| 19 | Neurite Outgrowth on Electrospun Nanofibers with Uniaxial Alignment: The Effects of Fiber Density, Surface Coating, and Supporting Substrate. ACS Nano, 2014, 8, 1878-1885. | 7.3 | 157 |
| 20 | Encapsulation of protein drugs in biodegradable microparticles by co-axial electrospray. Journal of Colloid and Interface Science, 2008, 317, 469-476. | 5.0 | 149 |
| 21 | Nanofiber Scaffolds with Gradients in Mineral Content for Spatial Control of Osteogenesis. ACS Applied Materials & Interfaces, 2014, 6, 2842-2849. | 4.0 | 145 |
| 22 | Smart Electrospun Nanofibers for Controlled Drug Release: Recent Advances and New Perspectives. Current Pharmaceutical Design, 2015, 21, 1944-1959. | 0.9 | 143 |
| 23 | Nerve Guidance Conduits Based on Double-Layered Scaffolds of Electrospun Nanofibers for Repairing the Peripheral Nervous System. ACS Applied Materials & Interfaces, 2014, 6, 9472-9480. | 4.0 | 141 |
| 24 | Dissolvable Microneedles Coupled with Nanofiber Dressings Eradicate Biofilms via Effectively Delivering a Database-Designed Antimicrobial Peptide. ACS Nano, 2020, 14, 11775-11786. | 7.3 | 129 |
| 25 | Encapsulation of proteins in biodegradable polymeric microparticles using electrospray in the Taylor cone-jet mode. Biotechnology and Bioengineering, 2007, 97, 1278-1290. | 1.7 | 128 |
| 26 | Binary Doping of Strontium and Copper Enhancing Osteogenesis and Angiogenesis of Bioactive Glass Nanofibers while Suppressing Osteoclast Activity. ACS Applied Materials & Interfaces, 2017, 9, 24484-24496. | 4.0 | 127 |
| 27 | Electrospray in the dripping mode for cell microencapsulation. Journal of Colloid and Interface Science, 2007, 312, 247-255. | 5.0 | 125 |
| 28 | Laserâ€induced Graphene for Electrothermally Controlled, Mechanically Guided, 3D Assembly and Humanâ€“Soft Actuators Interaction. Advanced Materials, 2020, 32, e1908475. | 11.1 | 118 |
| 29 | Electrospraying an enabling technology for pharmaceutical and biomedical applications: A review. Journal of Aerosol Science, 2018, 125, 164-181. | 1.8 | 116 |
| 30 | Expanded 3D Nanofiber Scaffolds: Cell Penetration, Neovascularization, and Host Response. Advanced Healthcare Materials, 2016, 5, 2993-3003. | 3.9 | 114 |
| 31 | Emerging Roles of Electrospun Nanofibers in Cancer Research. Advanced Healthcare Materials, 2018, 7, e1701024. | 3.9 | 114 |
| 32 | Expanding Two-Dimensional Electrospun Nanofiber Membranes in the Third Dimension By a Modified Gas-Foaming Technique. ACS Biomaterials Science and Engineering, 2015, 1, 991-1001. | 2.6 | 112 |
| 33 | Mineralized nanofiber segments coupled with calcium-binding BMP-2 peptides for alveolar bone regeneration. Acta Biomaterialia, 2019, 85, 282-293. | 4.1 | 108 |
| 34 | Enhancing the Stiffness of Electrospun Nanofiber Scaffolds with a Controlled Surface Coating and Mineralization. Langmuir, 2011, 27, 9088-9093. | 1.6 | 104 |
| 35 | Fabrication of injectable and superelastic nanofiber rectangle matrices (â€œpeanutsâ€) and their potential applications in hemostasis. Biomaterials, 2018, 179, 46-59. | 5.7 | 96 |
| 36 | Controlled biomineralization of electrospun poly(Îµ-caprolactone) fibers to enhance their mechanical properties. Acta Biomaterialia, 2013, 9, 5698-5707. | 4.1 | 91 |

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|---|---|---|---|
| 37 | New forms of electrospun nanofiber materials for biomedical applications. Journal of Materials Chemistry B, 2020, 8, 3733-3746. | 2.9 | 90 |
| 38 | Self-Assembled Biodegradable Nanoparticles Developed by Direct Dialysis for the Delivery of Paclitaxel. Pharmaceutical Research, 2005, 22, 2079-2090. | 1.7 | 84 |
| 39 | Bioprinting: 3D Bioprinting: from Benches to Translational Applications (Small 23/2019). Small, 2019, 15, 1970126. | 5.2 | 84 |
| 40 | Novel 3D Hybrid Nanofiber Aerogels Coupled with BMPâ€2 Peptides for Cranial Bone Regeneration. Advanced Healthcare Materials, 2018, 7, e1701415. | 3.9 | 78 |
| 41 | Mesenchymal stem cell-laden, personalized 3D scaffolds with controlled structure and fiber alignment promote diabetic wound healing. Acta Biomaterialia, 2020, 108, 153-167. | 4.1 | 74 |
| 42 | CO2-expanded nanofiber scaffolds maintain activity of encapsulated bioactive materials and promote cellular infiltration and positive host response. Acta Biomaterialia, 2018, 68, 237-248. | 4.1 | 72 |
| 43 | Biodegradable microparticles and fiber fabrics for sustained delivery of cisplatin to treat C6 glioma in vitro. Journal of Biomedical Materials Research - Part A, 2008, 85A, 897-908. | 2.1 | 68 |
| 44 | Rational design of nanofiber scaffolds for orthopedic tissue repair and regeneration. Nanomedicine, 2013, 8, 1459-1481. | 1.7 | 65 |
| 45 | Tannic acid-inspired, self-healing, and dual stimuli responsive dynamic hydrogel with potent antibacterial and anti-oxidative properties. Journal of Materials Chemistry B, 2021, 9, 7182-7195. | 2.9 | 65 |
| 46 | Electrospraying Electrospun Nanofiber Segments into Injectable Microspheres for Potential Cell Delivery. ACS Applied Materials & Interfaces, 2018, 10, 25069-25079. | 4.0 | 64 |
| 47 | Submicron bioactive glass tubes for bone tissue engineering. Acta Biomaterialia, 2012, 8, 811-819. | 4.1 | 59 |
| 48 | Three-Dimensional Objects Consisting of Hierarchically Assembled Nanofibers with Controlled Alignments for Regenerative Medicine. Nano Letters, 2019, 19, 2059-2065. | 4.5 | 56 |
| 49 | Sandwich-type fiber scaffolds with square arrayed microwells and nanostructured cues as microskin grafts for skin regeneration. Biomaterials, 2014, 35, 630-641. | 5.7 | 51 |
| 50 | Twisting electrospun nanofiber fine strips into functional sutures for sustained co-delivery of gentamicin and silver. Nanomedicine: Nanotechnology, Biology, and Medicine, 2017, 13, 1435-1445. | 1.7 | 49 |
| 51 | Converting 2D Nanofiber Membranes to 3D Hierarchical Assemblies with Structural and Compositional Gradients Regulates Cell Behavior. Advanced Materials, 2020, 32, e2003754. | 11.1 | 49 |
| 52 | Nanofiber Dressings Topically Delivering Molecularly Engineered Human Cathelicidin Peptides for the Treatment of Biofilms in Chronic Wounds. Molecular Pharmaceutics, 2019, 16, 2011-2020. | 2.3 | 42 |
| 53 | Nanofiber Membranes with Controllable Microwells and Structural Cues and Their Use in Forming Cell Microarrays and Neuronal Networks. Small, 2011, 7, 293-297. | 5.2 | 39 |
| 54 | Biomaterials with structural hierarchy and controlled 3D nanotopography guide endogenous bone regeneration. Science Advances, 2021, 7, . | 4.7 | 39 |

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|---|---|---|---|
| 55 | 3D Hybrid Nanofiber Aerogels Combining with Nanoparticles Made of a Biocleavable and Targeting Polycation and MiRâ€26a for Bone Repair. Advanced Functional Materials, 2020, 30, 2005531. | 7.8 | 34 |
| 56 | Bioinspired elastomer composites with programmed mechanical and electrical anisotropies. Nature Communications, 2022, 13, 524. | 5.8 | 34 |
| 57 | Biodegradable Films Developed by Electrospray Deposition for Sustained Drug Delivery. Journal of Pharmaceutical Sciences, 2008, 97, 3109-3122. | 1.6 | 33 |
| 58 | Fast transformation of 2D nanofiber membranes into pre-molded 3D scaffolds with biomimetic and oriented porous structure for biomedical applications. Applied Physics Reviews, 2020, 7, 021406. | 5.5 | 33 |
| 59 | Freezeâ€Casting with 3Dâ€Printed Templates Creates Anisotropic Microchannels and Patterned Macrochannels within Biomimetic Nanofiber Aerogels for Rapid Cellular Infiltration. Advanced Healthcare Materials, 2021, 10, e2100238. | 3.9 | 33 |
| 60 | Fabrication of Nanofiber Scaffolds With Gradations in Fiber Organization and Their Potential Applications. Macromolecular Bioscience, 2012, 12, 1336-1341. | 2.1 | 30 |
| 61 | Simultaneous Delivery of Multiple Antimicrobial Agents by Biphasic Scaffolds for Effective Treatment of Wound Biofilms. Advanced Healthcare Materials, 2021, 10, e2100135. | 3.9 | 29 |
| 62 | Fabrication of Novel 3D Nanofiber Scaffolds with Anisotropic Property and Regular Pores and Their Potential Applications. Advanced Healthcare Materials, 2012, 1, 674-678. | 3.9 | 27 |
| 63 | Local Sustained Delivery of 25-Hydroxyvitamin D3 for Production of Antimicrobial Peptides. Pharmaceutical Research, 2015, 32, 2851-2862. | 1.7 | 26 |
| 64 | Engineering Biomimetic Nanofiber Microspheres with Tailored Size, Predesigned Structure, and Desired Composition via Gas Bubbleâ€“Mediated Coaxial Electrospray. Small, 2020, 16, e1907393. | 5.2 | 26 |
| 65 | Dual Delivery of Alendronate and E7-BMP-2 Peptide via Calcium Chelation to Mineralized Nanofiber Fragments for Alveolar Bone Regeneration. ACS Biomaterials Science and Engineering, 2020, 6, 2368-2375. | 2.6 | 25 |
| 66 | Proliferation of Genetically Modified Human Cells on Electrospun Nanofiber Scaffolds. Molecular Therapy - Nucleic Acids, 2012, 1, e59. | 2.3 | 24 |
| 67 | Thermally Triggered Mechanically Destructive Electronics Based On Electrospun Poly(Îµ-caprolactone) Nanofibrous Polymer Films. Scientific Reports, 2017, 7, 947. | 1.6 | 24 |
| 68 | A mouse model for vitamin D-induced human cathelicidin antimicrobial peptide gene expression. Journal of Steroid Biochemistry and Molecular Biology, 2020, 198, 105552. | 1.2 | 24 |
| 69 | Ultra-absorptive Nanofiber Swabs for Improved Collection and Test Sensitivity of SARS-CoV-2 and other Biological Specimens. Nano Letters, 2021, 21, 1508-1516. | 4.5 | 24 |
| 70 | Short and Robust Anti-Infective Lipopeptides Engineered Based on the Minimal Antimicrobial Peptide KR12 of Human LL-37. ACS Infectious Diseases, 2021, 7, 1795-1808. | 1.8 | 24 |
| 71 | Electric field controlled electrospray deposition for precise particle pattern and cell pattern formation. AICHE Journal, 2010, 56, 2607-2621. | 1.8 | 23 |
| 72 | Decorating 3D Printed Scaffolds with Electrospun Nanofiber Segments for Tissue Engineering. Advanced Biology, 2019, 3, e1900137. | 3.0 | 23 |

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|---|---|---|---|
| 73 | Electrical Field Guided Electrospray Deposition for Production of Gradient Particle Patterns. ACS Applied Materials & Interfaces, 2018, 10, 18499-18506. | 4.0 | 22 |
| 74 | Tethering peptides onto biomimetic and injectable nanofiber microspheres to direct cellular response. Nanomedicine: Nanotechnology, Biology, and Medicine, 2019, 22, 102081. | 1.7 | 22 |
| 75 | Three-dimensional nanofiber scaffolds with arrayed holes for engineering skin tissue constructs. MRS Communications, 2017, 7, 361-366. | 0.8 | 21 |
| 76 | Eluted 25-hydroxyvitamin D3 from radially aligned nanofiber scaffolds enhances cathelicidin production while reducing inflammatory response in human immune system-engrafted mice. Acta Biomaterialia, 2019, 97, 187-199. | 4.1 | 20 |
| 77 | Expanding sacrificially printed microfluidic channel-embedded paper devices for construction of volumetric tissue models in vitro. Biofabrication, 2020, 12, 045027. | 3.7 | 20 |
| 78 | Laser-scribed conductive, photoactive transition metal oxide on soft elastomers for Janus on-skin electronics and soft actuators. Science Advances, 2022, 8, . | 4.7 | 20 |
| 79 | 1Î±,25-dihydroxyvitamin D<sub>3</sub>-eluting nanofibrous dressings induce endogenous antimicrobial peptide expression. Nanomedicine, 2018, 13, 1417-1432. | 1.7 | 19 |
| 80 | Nanoparticulate Formulations for Paclitaxel Delivery Across MDCK Cell Monolayer. Current Pharmaceutical Design, 2010, 16, 2331-2340. | 0.9 | 17 |
| 81 | Nanofiber-based sutures induce endogenous antimicrobial peptide. Nanomedicine, 2017, 12, 2597-2609. | 1.7 | 16 |
| 82 | Minimally Invasive Delivery of 3D Shape Recoverable Constructs with Ordered Structures for Tissue Repair. ACS Biomaterials Science and Engineering, 2021, 7, 2204-2211. | 2.6 | 16 |
| 83 | Electrostatic Flocking of Insulative and Biodegradable Polymer Microfibers for Biomedical Applications. Advanced Healthcare Materials, 2021, 10, e2100766. | 3.9 | 14 |
| 84 | 3D bioprinting of multilayered scaffolds with spatially differentiated ADMSCs for rotator cuff tendon-to-bone interface regeneration. Applied Materials Today, 2022, 27, 101510. | 2.3 | 13 |
| 85 | Electrostatic flocking of salt-treated microfibers and nanofiber yarns for regenerative engineering. Materials Today Bio, 2021, 12, 100166. | 2.6 | 11 |
| 86 | Periosteum Mimetic Coating on Structural Bone Allografts via Electrospray Deposition Enhances Repair and Reconstruction of Segmental Defects. ACS Biomaterials Science and Engineering, 2020, 6, 6241-6252. | 2.6 | 10 |
| 87 | Advances in Modeling Alzheimer's Disease In Vitro. Advanced NanoBiomed Research, 2021, 1, 2100097. | 1.7 | 10 |
| 88 | Highly controlled coating of strontiumâ€doped hydroxyapatite on electrospun poly(É›â€caprolactone) fibers. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2017, 105, 753-763. | 1.6 | 9 |
| 89 | Largeâ€scale synthesis of compressible and reâ€expandable threeâ€dimensional nanofiber matrices. Nano Select, 2021, 2, 1566-1579. | 1.9 | 7 |
| 90 | Understanding and utilizing textile-based electrostatic flocking for biomedical applications. Applied Physics Reviews, 2021, 8, 041326. | 5.5 | 7 |

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|---|---|---|---|
| 91 | Nanofiber capsules for minimally invasive sampling of biological specimens from gastrointestinal tract. Acta Biomaterialia, 2022, 146, 211-221. | 4.1 | 5 |
| 92 | Identification of metabolic pathways underlying FGF1 and CHIR99021-mediated cardioprotection. IScience, 2022, 25, 104447. | 1.9 | 5 |
| 93 | Nanofiber Microspheres: Engineering Biomimetic Nanofiber Microspheres with Tailored Size, Predesigned Structure, and Desired Composition via Gas Bubbleâ€“Mediated Coaxial Electrospray (Small) Tj ETQq1 1 0.784314 rgBT /O | | |
| 94 | Electrospun Nanofibers for Wound Management. ChemNanoMat, 0, , . | 1.5 | 4 |
| 95 | Codelivery of 1Î±,25-Dihydroxyvitamin D<sub>3</sub> and CYP24A1 Inhibitor VID400 by Nanofiber Dressings Promotes Endogenous Antimicrobial Peptide LL-37 Induction. Molecular Pharmaceutics, 2022, 19, 974-984. | 2.3 | 4 |
| 96 | Expansion of Two-dimension Electrospun Nanofiber Mats into Three-dimension Scaffolds. Journal of Visualized Experiments, 2019, , . | 0.2 | 3 |
| 97 | Electrospun Nanofiber Scaffolds with Gradations in Fiber Organization. Journal of Visualized Experiments, 2015, , . | 0.2 | 2 |
| 98 | Bone Regeneration: Novel 3D Hybrid Nanofiber Aerogels Coupled with BMPâ€2 Peptides for Cranial Bone Regeneration (Adv. Healthcare Mater. 10/2018). Advanced Healthcare Materials, 2018, 7, 1870042. | 3.9 | 1 |
| 99 | 3D Printed Scaffolds: Decorating 3D Printed Scaffolds with Electrospun Nanofiber Segments for Tissue Engineering (Adv. Biosys. 12/2019). Advanced Biology, 2019, 3, 1970122. | 3.0 | 1 |
| 100 | Cell Scaffolds: Expanded 3D Nanofiber Scaffolds: Cell Penetration, Neovascularization, and Host Response (Adv. Healthcare Mater. 23/2016). Advanced Healthcare Materials, 2016, 5, 2962-2962. | 3.9 | 0 |
| 101 | Electrospun nanofiber matrix for tissue repair and regeneration. , 2022, , 175-191. | | 0 |
| 102 | Cover Feature: Electrospun Nanofibers for Wound Management (ChemNanoMat 7/2022). ChemNanoMat, 2022, 8, . | 1.5 | 0 |