# Xi Xie

List of Publications by Year
in descending order

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| 112 | 5,072 | 70961 | 102304 |
|---|---|---|---|
| papers | citations | 41 h-index | 66 g-index |

| 115 | 115 | 115 | 5810 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Recent Progress in Microneedlesâ€Mediated Diagnosis, Therapy, and Theranostic Systems. Advanced Healthcare Materials, 2022, 11, e2102547. | 3.9 | 34 |
| 2 | Environment tolerant, adaptable and stretchable organohydrogels: preparation, optimization, and applications. Materials Horizons, 2022, 9, 1356-1386. | 6.4 | 75 |
| 3 | Self-Healing, Self-Adhesive and Stable Organohydrogel-Based Stretchable Oxygen Sensor with High Performance at Room Temperature. Nano-Micro Letters, 2022, 14, 52. | 14.4 | 53 |
| 4 | Spin-Coating-Based Fabrication of Nanostraw Arrays for Cellular Nano-electroporation. ACS Applied Nano Materials, 2022, 5, 2057-2067. | 2.4 | 6 |
| 5 | Minimally invasive technology for continuous glucose monitoring. Bio-Design and Manufacturing, 2022, 5, 9-13. | 3.9 | 7 |
| 6 | A touch-actuated glucose sensor fully integrated with microneedle array and reverse iontophoresis for diabetes monitoring. Biosensors and Bioelectronics, 2022, 203, 114026. | 5.3 | 71 |
| 7 | Cellular nanointerface of vertical nanostructure arrays and its applications. Nanoscale Advances, 2022, 4, 1844-1867. | 2.2 | 4 |
| 8 | Integrated Strain Sensors with Stretchable Vertical Graphene Networks for Non-invasive Physiological Assessment. ACS Applied Electronic Materials, 2022, 4, 964-973. | 2.0 | 8 |
| 9 | Surgical Tumor-Derived Photothermal Nanovaccine for Personalized Cancer Therapy and Prevention. Nano Letters, 2022, 22, 3095-3103. | 4.5 | 42 |
| 10 | Smart Diaper Based on Integrated Multiplex Carbon Nanotube-Coated Electrode Array Sensors for In Situ Urine Monitoring. ACS Applied Nano Materials, 2022, 5, 4767-4778. | 2.4 | 16 |
| 11 | Monosaccharide-mediated rational synthesis of a universal plasmonic platform with broad spectral fluorescence enhancement for high-sensitivity cancer biomarker analysis. Journal of Nanobiotechnology, 2022, 20, 184. | 4.2 | 2 |
| 12 | An ultrastretchable, high-performance, and crosstalk-free proximity and pressure bimodal sensor based on ionic hydrogel fibers for human-machine interfaces. Materials Horizons, 2022, 9, 1935-1946. | 6.4 | 67 |
| 13 | Hydrogel- and organohydrogel-based stretchable, ultrasensitive, transparent, room-temperature and real-time NO<sub>2</sub> sensors and the mechanism. Materials Horizons, 2022, 9, 1921-1934. | 6.4 | 47 |
| 14 | Determination of Transdermal Rate of Metallic Microneedle Array through an Impedance Measurements-Based Numerical Check Screening Algorithm. Micromachines, 2022, 13, 718. | 1.4 | 3 |
| 15 | Deformable, transparent, highâ€performance, <scp>roomâ€temperature</scp> oxygen sensors based on <scp>ionâ€conductive</scp>, <scp>environmentâ€tolerant,</scp> and green organohydrogels. EcoMat, 2022, 4, . | 6.8 | 14 |
| 16 | Ultrasensitive, stretchable, and transparent humidity sensor based on ion-conductive double-network hydrogel thin films. Science China Materials, 2022, 65, 2540-2552. | 3.5 | 13 |
| 17 | Intelligent wireless theranostic contact lens for electrical sensing and regulation of intraocular pressure. Nature Communications, 2022, 13, 2556. | 5.8 | 36 |
| 18 | Semi-Implantable Bioelectronics. Nano-Micro Letters, 2022, 14, . | 14.4 | 14 |

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|---|---|---|---|
| 19 | An integrated micro-extracting system facilitates lesion-free biomacromolecules enrichment and detection. Materials and Design, 2022, 219, 110812. | 3.3 | 0 |
| 20 | Interrogation on the Cellular Nano-Interface and Biosafety of Repeated Nano-Electroporation by Nanostraw System. Biosensors, 2022, 12, 522. | 2.3 | 1 |
| 21 | Selfâ€Calibrated, Sensitive, and Flexible Temperature Sensor Based on 3D Chemically Modified Graphene Hydrogel. Advanced Electronic Materials, 2021, 7, 2001084. | 2.6 | 24 |
| 22 | Ultrastable, stretchable, highly conductive and transparent hydrogels enabled by salt-percolation for high-performance temperature and strain sensing. Journal of Materials Chemistry C, 2021, 9, 13668-13679. | 2.7 | 77 |
| 23 | Liquid-like Polymer Coating as a Promising Candidate for Reducing Electrode Contamination and Noise in Complex Biofluids. ACS Applied Materials & Interfaces, 2021, 13, 4450-4462. | 4.0 | 15 |
| 24 | Cardiomyocyte electrical-mechanical synchronized model for high-content, dose-quantitative and time-dependent drug assessment. Microsystems and Nanoengineering, 2021, 7, 26. | 3.4 | 11 |
| 25 | Recognition of high-specificity hERG K+ channel inhibitor-induced arrhythmia in cardiomyocytes by automated template matching. Microsystems and Nanoengineering, 2021, 7, 24. | 3.4 | 3 |
| 26 | Immunoengineered adjuvants for universal vaccines against respiratory viruses. Fundamental Research, 2021, 1, 189-192. | 1.6 | 4 |
| 27 | Ultrasensitive, Stretchable, and Fast-Response Temperature Sensors Based on Hydrogel Films for Wearable Applications. ACS Applied Materials & Interfaces, 2021, 13, 21854-21864. | 4.0 | 113 |
| 28 | In-Cell Nanoelectronics: Opening the Door to Intracellular Electrophysiology. Nano-Micro Letters, 2021, 13, 127. | 14.4 | 21 |
| 29 | Liquid-like polymer-based self-cleaning coating for effective prevention of liquid foods contaminations. Journal of Colloid and Interface Science, 2021, 589, 327-335. | 5.0 | 25 |
| 30 | Expansion of Rare Cancer Cells into Tumoroids for Therapeutic Regimen and Cancer Therapy. Advanced Therapeutics, 2021, 4, 2100017. | 1.6 | 3 |
| 31 | A Fully Integrated Closedâ€Loop System Based on Mesoporous Microneedlesâ€Iontophoresis for Diabetes Treatment. Advanced Science, 2021, 8, e2100827. | 5.6 | 91 |
| 32 | Tumor-on-a-chip: from bioinspired design to biomedical application. Microsystems and Nanoengineering, 2021, 7, 50. | 3.4 | 103 |
| 33 | Liquid-like layer coated intraocular lens for posterior capsular opacification prevention. Applied Materials Today, 2021, 23, 100981. | 2.3 | 8 |
| 34 | Highly Deformable and Stable Gas Sensor Based on Anti-Drying Ionic Organohydrogel for O2 Gas Detection. , 2021, , . | | 0 |
| 35 | Tutorial: using nanoneedles for intracellular delivery. Nature Protocols, 2021, 16, 4539-4563. | 5.5 | 47 |
| 36 | Integrated Multiplex Sensing Bandage for In Situ Monitoring of Early Infected Wounds. ACS Sensors, 2021, 6, 3112-3124. | 4.0 | 28 |

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| 37 | Three-dimensional gold nanoparticles-modified graphene hydrogel for high-sensitive NO2 and NH3 detection with enhanced resistance to humidity. Sensors and Actuators B: Chemical, 2021, 344, 130259. | 4.0 | 16 |
| 38 | Synchronized intracellular and extracellular recording of action potentials by three-dimensional nanoroded electroporation. Biosensors and Bioelectronics, 2021, 192, 113501. | 5.3 | 15 |
| 39 | Accurate and efficient intracellular delivery biosensing system by nanostrawed electroporation array. Biosensors and Bioelectronics, 2021, 194, 113583. | 5.3 | 8 |
| 40 | Wearable and Implantable Intraocular Pressure Biosensors: Recent Progress and Future Prospects. Advanced Science, 2021, 8, 2002971. | 5.6 | 28 |
| 41 | Ionâ€Conductive Hydrogelâ€Based Stretchable, Selfâ€Healing, and Transparent NO<sub>2</sub> Sensor with High Sensitivity and Selectivity at Room Temperature. Small, 2021, 17, e2104997. | 5.2 | 55 |
| 42 | Flexible Tongue Electrode Array System for In Vivo Mapping of Electrical Signals of Taste Sensation. ACS Sensors, 2021, 6, 4108-4117. | 4.0 | 1 |
| 43 | Microneedles for transdermal diagnostics: Recent advances and new horizons. Biomaterials, 2020, 232, 119740. | 5.7 | 143 |
| 44 | Anomalous dispersion of bioinspired flower-like microparticles for oil/water separation. Nanotechnology, 2020, 31, 095712. | 1.3 | 5 |
| 45 | Slippery Liquid-Attached Surface for Robust Biofouling Resistance. ACS Biomaterials Science and Engineering, 2020, 6, 358-366. | 2.6 | 44 |
| 46 | Ultrahigh Sensitivity of Flexible Thermistors Based on 3D Porous Graphene Characterized by Imbedded Microheaters. Advanced Electronic Materials, 2020, 6, 2000451. | 2.6 | 7 |
| 47 | Anti-biofouling NH3 gas sensor based on reentrant thorny ZnO/graphene hybrid nanowalls. Microsystems and Nanoengineering, 2020, 6, 41. | 3.4 | 19 |
| 48 | Vertical nanowire array-based biosensors: device design strategies and biomedical applications. Journal of Materials Chemistry B, 2020, 8, 7609-7632. | 2.9 | 21 |
| 49 | Intracellular recording of cardiomyocyte action potentials by nanobranched microelectrode array. Biosensors and Bioelectronics, 2020, 169, 112588. | 5.3 | 26 |
| 50 | Emerging Roles of 1D Vertical Nanostructures in Orchestrating Immune Cell Functions. Advanced Materials, 2020, 32, e2001668. | 11.1 | 45 |
| 51 | Microneedles loaded with anti-PD-1â€“cisplatin nanoparticles for synergistic cancer immuno-chemotherapy. Nanoscale, 2020, 12, 18885-18898. | 2.8 | 67 |
| 52 | Stretchable, Stable, and Room-Temperature Gas Sensors Based on Self-Healing and Transparent Organohydrogels. ACS Applied Materials & Interfaces, 2020, 12, 52070-52081. | 4.0 | 57 |
| 53 | Specific recognition of ion channel blocker by high-content cardiomyocyte electromechanical integrated correlation. Biosensors and Bioelectronics, 2020, 162, 112273. | 5.3 | 23 |
| 54 | Nanoneedle Platforms: The Many Ways to Pierce the Cell Membrane. Advanced Functional Materials, 2020, 30, 1909890. | 7.8 | 58 |

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| 55 | Antibody-free isolation and regulation of adherent cancer cells via hybrid branched microtube-sandwiched hydrodynamic system. Nanoscale, 2020, 12, 5103-5113. | 2.8 | 8 |
| 56 | Degradable porous nanoflower substrate-embedded microfluidic device for capture, release and in situ manipulation of cancer cells. Applied Materials Today, 2020, 19, 100617. | 2.3 | 8 |
| 57 | Constructing Electrophoretic Displays on Foldable Paper-Based Electrodes by a Facile Transferring Method. ACS Applied Electronic Materials, 2020, 2, 1335-1342. | 2.0 | 13 |
| 58 | Ultrasensitive and Stretchable Temperature Sensors Based on Thermally Stable and Self-Healing Organohydrogels. ACS Applied Materials & Interfaces, 2020, 12, 19069-19079. | 4.0 | 145 |
| 59 | Revealing the Role of Surface Co-modification in Boosting the Gas Sensing Performance of Graphene Using Experimental and Theoretical Evidences. Sensors and Actuators B: Chemical, 2020, 316, 128162. | 4.0 | 6 |
| 60 | Green Synthesis of 3D Chemically Functionalized Graphene Hydrogel for High-Performance NH<sub>3</sub> and NO<sub>2</sub> Detection at Room Temperature. ACS Applied Materials & Interfaces, 2020, 12, 20623-20632. | 4.0 | 60 |
| 61 | Recent Advances in Gas and Humidity Sensors Based on 3D Structured and Porous Graphene and Its Derivatives. , 2020, 2, 1381-1411. | | 50 |
| 62 | Smartphone-powered iontophoresis-microneedle array patch for controlled transdermal delivery. Microsystems and Nanoengineering, 2020, 6, 112. | 3.4 | 52 |
| 63 | Biodegradable Therapeutic Microneedle Patch for Rapid Antihypertensive Treatment. ACS Applied Materials & Interfaces, 2019, 11, 30575-30584. | 4.0 | 25 |
| 64 | Intracellular Delivery and Sensing System Based on Electroplated Conductive Nanostraw Arrays. ACS Applied Materials & Interfaces, 2019, 11, 43936-43948. | 4.0 | 56 |
| 65 | Protection of Nanostructures-Integrated Microneedle Biosensor Using Dissolvable Polymer Coating. ACS Applied Materials & Interfaces, 2019, 11, 4809-4819. | 4.0 | 42 |
| 66 | Multifunctional Branched Nanostraw-Electroporation Platform for Intracellular Regulation and Monitoring of Circulating Tumor Cells. Nano Letters, 2019, 19, 7201-7209. | 4.5 | 61 |
| 67 | An intrinsically stretchable humidity sensor based on anti-drying, self-healing and transparent organohydrogels. Materials Horizons, 2019, 6, 595-603. | 6.4 | 297 |
| 68 | Functionalized Spiky Particles for Intracellular Biomolecular Delivery. ACS Central Science, 2019, 5, 960-969. | 5.3 | 19 |
| 69 | Hierarchical graphene/nanorods-based H2O2 electrochemical sensor with self-cleaning and anti-biofouling properties. Sensors and Actuators B: Chemical, 2019, 289, 15-23. | 4.0 | 55 |
| 70 | Rapid-response, reversible and flexible humidity sensing platform using a hydrophobic and porous substrate. Journal of Materials Chemistry B, 2019, 7, 2063-2073. | 2.9 | 42 |
| 71 | High-performance water desalination of heteroatom nitrogen- and sulfur-codoped open hollow tubular porous carbon electrodes via capacitive deionization. Environmental Science: Nano, 2019, 6, 3359-3373. | 2.2 | 31 |
| 72 | Layer dependence of the photoelectrochemical performance of a WSe<sub>2</sub> photocathode characterized using in situ microscale measurements. RSC Advances, 2019, 9, 30925-30931. | 1.7 | 3 |

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| 73 | Stretchable Strain Vector Sensor Based on Parallelly Aligned Vertical Graphene. ACS Applied Materials & Interfaces, 2019, 11, 1294-1302. | 4.0 | 64 |
| 74 | Reduced Graphene Oxide Nanohybridâ€“Assembled Microneedles as Miniâ€Invasive Electrodes for Realâ€Time Transdermal Biosensing. Small, 2019, 15, e1804298. | 5.2 | 74 |
| 75 | Selfâ€Cleaning Ultraviolet Photodetectors Based on Tree Crownâ€Like Microtube Structure. Advanced Materials Interfaces, 2019, 6, 1801251. | 1.9 | 6 |
| 76 | Injectable Slippery Lubricant-Coated Spiky Microparticles with Persistent and Exceptional Biofouling-Resistance. ACS Central Science, 2019, 5, 250-258. | 5.3 | 15 |
| 77 | Hierarchical Spiky Microstrawsâ€Integrated Microfluidic Device for Efficient Capture and In Situ Manipulation of Cancer Cells. Advanced Functional Materials, 2019, 29, 1806484. | 7.8 | 39 |
| 78 | Fabrication of Various Structures of Nanostraw Arrays and Their Applications in Gene Delivery. Advanced Materials Interfaces, 2018, 5, 1701535. | 1.9 | 32 |
| 79 | Nanospikes functionalization as a universal strategy to disperse hydrophilic particles in non-polar media. Nanotechnology, 2018, 29, 185705. | 1.3 | 1 |
| 80 | Tape-Based Photodetector: Transfer Process and Persistent Photoconductivity. ACS Applied Materials & Interfaces, 2018, 10, 16596-16604. | 4.0 | 21 |
| 81 | Anomalous dispersion of magnetic spiky particles for enhanced oil emulsions/water separation. Nanoscale, 2018, 10, 1978-1986. | 2.8 | 35 |
| 82 | 3D superhydrophobic reduced graphene oxide for activated NO<sub>2</sub> sensing with enhanced immunity to humidity. Journal of Materials Chemistry A, 2018, 6, 478-488. | 5.2 | 116 |
| 83 | Facile patterning and transferring method for constructing self-powered UV photodetectors. Applied Physics Express, 2018, 11, 116502. | 1.1 | 8 |
| 84 | Physical activation of innate immunity by spiky particles. Nature Nanotechnology, 2018, 13, 1078-1086. | 15.6 | 158 |
| 85 | Comprehensive Stability Improvement of Silver Nanowire Networks via Self-Assembled Mercapto Inhibitors. ACS Applied Materials & Interfaces, 2018, 10, 37699-37708. | 4.0 | 64 |
| 86 | Microneedle-Mediated Delivery of Lipid-Coated Cisplatin Nanoparticles for Efficient and Safe Cancer Therapy. ACS Applied Materials & Interfaces, 2018, 10, 33060-33069. | 4.0 | 125 |
| 87 | Electrostatic assembly of ultraviolet-curable cellulose-coated silver nanowires as transparent electrodes for nanogenerator. Applied Physics Express, 2018, 11, 075002. | 1.1 | 10 |
| 88 | Reduction of measurement noise in a continuous glucose monitor by coating the sensor with a zwitterionic polymer. Nature Biomedical Engineering, 2018, 2, 894-906. | 11.6 | 150 |
| 89 | Transdermal Delivery of Living and Biofunctional Probiotics through Dissolvable Microneedle Patches. ACS Applied Bio Materials, 2018, 1, 374-381. | 2.3 | 18 |
| 90 | Nanospikes-mediated Anomalous Dispersities of Hydropobic Micro-objects and their Application for Oil Emulsion Cleaning. Scientific Reports, 2018, 8, 12600. | 1.6 | 6 |

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| 91 | Hollow Nanoneedle-Electroporation System To Extract Intracellular Protein Repetitively and Nondestructively. ACS Sensors, 2018, 3, 1675-1682. | 4.0 | 38 |
| 92 | Microfluidic Fabrication of Colloidal Nanomaterials-Encapsulated Microcapsules for Biomolecular Sensing. Nano Letters, 2017, 17, 2015-2020. | 4.5 | 78 |
| 93 | pH-sensitive polymeric nanoparticles for co-delivery of doxorubicin and curcumin to treat cancer via enhanced pro-apoptotic and anti-angiogenic activities. Acta Biomaterialia, 2017, 58, 349-364. | 4.1 | 155 |
| 94 | Laser heating of metallic nanoparticles for photothermal ablation applications. AIP Advances, 2017, 7, . | 0.6 | 28 |
| 95 | Analgesic Microneedle Patch for Neuropathic Pain Therapy. ACS Nano, 2017, 11, 395-406. | 7.3 | 106 |
| 96 | A Facile and Versatile Method to Endow Biomaterial Devices with Zwitterionic Surface Coatings. Advanced Healthcare Materials, 2017, 6, 1601091. | 3.9 | 51 |
| 97 | Cleavable Multifunctional Targeting Mixed Micelles with Sequential pH-Triggered TAT Peptide Activation for Improved Antihepatocellular Carcinoma Efficacy. Molecular Pharmaceutics, 2017, 14, 3644-3659. | 2.3 | 31 |
| 98 | Slippery surface based on lubricant infused hierarchical silicon nanowire film. RSC Advances, 2017, 7, 55812-55818. | 1.7 | 9 |
| 99 | TiO <sub>2</sub> nanowire-templated hierarchical nanowire network as water-repelling coating. Royal Society Open Science, 2017, 4, 171431. | 1.1 | 6 |
| 100 | Redox-sensitive Pluronic F127-tocopherol micelles: synthesis, characterization, and cytotoxicity evaluation. International Journal of Nanomedicine, 2017, Volume 12, 2635-2644. | 3.3 | 58 |
| 101 | Niosome Encapsulation of Curcumin: Characterization and Cytotoxic Effect on Ovarian Cancer Cells. Journal of Nanomaterials, 2016, 2016, 1-9. | 1.5 | 68 |
| 102 | PCLâ€“F68â€“PCL/PLGAâ€“PEGâ€“PLGA mixed micelles mediated delivery of mitoxantrone for reversing multidrug resistant in breast cancer. RSC Advances, 2016, 6, 35318-35327. | 1.7 | 7 |
| 103 | pH-sensitive micelles based on acid-labile pluronic F68â€“curcumin conjugates for improved tumor intracellular drug delivery. International Journal of Pharmaceutics, 2016, 502, 28-37. | 2.6 | 67 |
| 104 | iRGD-mediated reduction-responsive DSPEâ€“PEG/LAâ€“PLGAâ€“TPGS mixed micelles used in the targeted delivery and triggered release of docetaxel in cancer. RSC Advances, 2016, 6, 28331-28342. | 1.7 | 6 |
| 105 | Determining the Time Window for Dynamic Nanowire Cell Penetration Processes. ACS Nano, 2015, 9, 11667-11677. | 7.3 | 66 |
| 106 | Fabrication of sub-cell size â€œspikyâ€•nanoparticles and their interfaces with biological cells. Journal of Materials Chemistry B, 2015, 3, 5155-5160. | 2.9 | 19 |
| 107 | Fabrication and properties of a supramolecular hybrid hydrogel doped with CdTe quantum dots. RSC Advances, 2015, 5, 58746-58754. | 1.7 | 19 |
| 108 | Quantification of nanowire penetration into living cells. Nature Communications, 2014, 5, 3613. | 5.8 | 129 |

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| 109 | Nanostrawâ€“Electroporation System for Highly Efficient Intracellular Delivery and Transfection. ACS Nano, 2013, 7, 4351-4358. | 7.3 | 257 |
| 110 | Mechanical Model of Vertical Nanowire Cell Penetration. Nano Letters, 2013, 13, 6002-6008. | 4.5 | 161 |
| 111 | Tunable supramolecular hydrogel for in situ encapsulation and sustained release of bioactive lysozyme. Journal of Colloid and Interface Science, 2011, 359, 399-406. | 5.0 | 42 |
| 112 | A novel route to inâ€situ incorporation of silver nanoparticles into supramolecular hydrogel networks. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 740-749. | 2.4 | 27 |