# Keyu Xie

List of Publications by Year
in descending order

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|---|---|---|---|
| 110<br>papers | 7,060<br>citations | 70961<br>41<br>h-index | 58464<br>82<br>g-index |
| 110<br>all docs | 110<br>docs citations | 110<br>times ranked | 9183<br>citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Accordion Frameworks Enable Freeâ€Standing, High Si Content Anode for Liâ€ion Batteries. Energy and Environmental Materials, 2023, 6, . | 7.3 | 2 |
| 2 | Understanding the Coffee ring Effect on Selfâ€discharge Behavior of Printed microâ€Supercapacitors. Energy and Environmental Materials, 2022, 5, 321-326. | 7.3 | 6 |
| 3 | SnO2/SnxMo1â^'xO3â^'x solid solution nanocomposites: Demonstration of enhanced lithium storage behavior with general synergistic effects. Journal of Alloys and Compounds, 2022, 895, 162607. | 2.8 | 3 |
| 4 | Effect of the supergravity on the formation and cycle life of non-aqueous lithium metal batteries. Nature Communications, 2022, 13, 5. | 5.8 | 20 |
| 5 | Collaborative enhancement of luminous efficacy and fracture toughness based on interface design of Al2O3/YAG:Ce3+ eutectic phosphor ceramic grown by laser floating zone melting. Ceramics International, 2022, 48, 10144-10154. | 2.3 | 3 |
| 6 | Highly improved efficiency and stability of planar perovskite solar cells via bifunctional phytic acid dipotassium anchored SnO2 electron transport layer. Applied Surface Science, 2022, 588, 152943. | 3.1 | 14 |
| 7 | An ion sieving conjugated microporous thermoset ultrathin membrane for high-performance Li-S battery. Energy Storage Materials, 2022, 49, 1-10. | 9.5 | 10 |
| 8 | CO<sub>2</sub>â€Induced Melting and Solvation Reconfiguration of Phaseâ€Change Electrolyte. Advanced Materials, 2022, 34, e2202869. | 11.1 | 4 |
| 9 | Constructing ambivalent imidazopyridinium-linked covalent organic frameworks. , 2022, 1, 382-392. | | 38 |
| 10 | Self-ball milling strategy to construct high-entropy oxide coated LiNi0.8Co0.1Mn0.1O2 with enhanced electrochemical performance. Journal of Advanced Ceramics, 2022, 11, 882-892. | 8.9 | 23 |
| 11 | Monoanion-regulated high-voltage nitrile-based solid electrolyte with compatible lithium inertness. Energy Storage Materials, 2021, 34, 640-647. | 9.5 | 18 |
| 12 | Defect-rich carbon nitride as electrolyte additive for in-situ electrode interface modification in lithium metal battery. Chemical Engineering Journal, 2021, 407, 127123. | 6.6 | 17 |
| 13 | A multiphase sodium vanadium phosphate cathode material for high-rate sodium-ion batteries. Journal of Materials Science and Technology, 2021, 66, 121-127. | 5.6 | 19 |
| 14 | Regulating electrodeposition behavior through enhanced mass transfer for stable lithium metal anodes. Journal of Energy Chemistry, 2021, 55, 580-587. | 7.1 | 22 |
| 15 | Uniform-dispersed ZnS quantum dots loading on graphene as a promising anode for potassium-ion batteries. Chinese Chemical Letters, 2021, 32, 1117-1120. | 4.8 | 21 |
| 16 | A scalable snowballing strategy to construct uniform rGO-wrapped LiNi0.8Co0.1Mn0.1O2 with enhanced processability and electrochemical performance. Applied Surface Science, 2021, 542, 148663. | 3.1 | 18 |
| 17 | A Highâ€Performance Lithium Metal Battery with Ionâ€Selective Nanofluidic Transport in a Conjugated Microporous Polymer Protective Layer. Advanced Materials, 2021, 33, e2006323. | 11.1 | 64 |
| 18 | An overview of flow cell architecture design and optimization for electrochemical CO<sub>2</sub> reduction. Journal of Materials Chemistry A, 2021, 9, 20897-20918. | 5.2 | 61 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Hybrid printed three-dimensionally integrated micro-supercapacitors for compact on-chip application. Applied Physics Reviews, 2021, 8, . | 5.5 | 10 |
| 20 | Highly Enhanced Efficiency of Planar Perovskite Solar Cells by an Electron Transport Layer Using Phytic Acidâ€“Complexed SnO<sub>2</sub> Colloids. Solar Rrl, 2021, 5, 2100067. | 3.1 | 16 |
| 21 | Highâ€Energy Aqueous Sodiumâ€ion Batteries. Angewandte Chemie - International Edition, 2021, 60, 11943-11948. | 7.2 | 100 |
| 22 | Highâ€Energy Aqueous Sodiumâ€ion Batteries. Angewandte Chemie, 2021, 133, 12050-12055. | 1.6 | 13 |
| 23 | Fast decomposition of Li2CO3/C actuated by single-atom catalysts for Li-CO2 batteries. Science China Materials, 2021, 64, 2139-2147. | 3.5 | 21 |
| 24 | One-step additive manufacturing and microstructure evolution of melt-grown Al2O3/GdAlO3/ZrO2 eutectic ceramics by laser directed energy deposition. Journal of the European Ceramic Society, 2021, 41, 3547-3558. | 2.8 | 32 |
| 25 | Single crystal Cu (110) inducing lateral growth of electrodeposition Li for dendrite-free Li metal-based batteries. Journal of Power Sources, 2021, 501, 229969. | 4.0 | 11 |
| 26 | Composite electrode based on single-atom Ni doped graphene for planar carbon-based perovskite solar cells. Materials and Design, 2021, 209, 109972. | 3.3 | 21 |
| 27 | Recent nanosheet-based materials for monovalent and multivalent ions storage. Energy Storage Materials, 2020, 25, 382-403. | 9.5 | 14 |
| 28 | Prepotassiated V<sub>2</sub>O<sub>5</sub> as the Cathode Material for Highâ€Voltage Potassiumâ€ion Batteries. Energy Technology, 2020, 8, 1900796. | 1.8 | 27 |
| 29 | Reducedâ€Grapheneâ€Oxideâ€Guided Directional Growth of Planar Lithium Layers. Advanced Materials, 2020, 32, e1907079. | 11.1 | 70 |
| 30 | Multifunctional Silanization Interface for Highâ€Energy and Lowâ€Gassing Lithium Metal Pouch Cells. Advanced Energy Materials, 2020, 10, 1903362. | 10.2 | 31 |
| 31 | TiO2 Nanosheet-Redox Graphene Oxide/Sulphur Cathode for High-Performance Lithium-Sulphur Batteries. Journal of Nanoscience and Nanotechnology, 2020, 20, 1715-1722. | 0.9 | 1 |
| 32 | Solution-Processable Covalent Organic Framework Electrolytes for All-Solid-State Liâ€“Organic Batteries. ACS Energy Letters, 2020, 5, 3498-3506. | 8.8 | 114 |
| 33 | Stabilizing surface chemical and structural Ni-rich cathode via a non-destructive surface reinforcement strategy. Nano Energy, 2020, 78, 105239. | 8.2 | 30 |
| 34 | Inducing rapid polysulfide transformation through enhanced interfacial electronic interaction for lithiumâ€“sulfur batteries. Nanoscale, 2020, 12, 13980-13986. | 2.8 | 14 |
| 35 | Tunable electronic properties of TiO2 nanocrystals by in situ dopamine functionalization for planar perovskite solar cells. Electrochimica Acta, 2020, 354, 136720. | 2.6 | 12 |
| 36 | Design principles of pseudocapacitive carbon anode materials for ultrafast sodium and potassium-ion batteries. Journal of Materials Chemistry A, 2020, 8, 7756-7764. | 5.2 | 16 |

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| 37 | A multifunctional electrolyte with highly-coordinated solvation structure-in-nonsolvent for rechargeable lithium batteries. Journal of Energy Chemistry, 2020, 51, 362-371. | 7.1 | 18 |
| 38 | Degradation Mechanism of LiNi0.5Co0.2Mn0.3O2/Graphite Cells at Elevated State of Charge and High Temperature. Journal of the Electrochemical Society, 2020, 167, 160528. | 1.3 | 8 |
| 39 | Highly Lithiophilic Cobalt Nitride Nanobrush as a Stable Host for High-Performance Lithium Metal Anodes. ACS Applied Materials & Interfaces, 2019, 11, 30992-30998. | 4.0 | 40 |
| 40 | Toward High-Performance Li Metal Anode via Difunctional Protecting Layer. Frontiers in Chemistry, 2019, 7, 572. | 1.8 | 12 |
| 41 | Concentrated LiODFB Electrolyte for Lithium Metal Batteries. Frontiers in Chemistry, 2019, 7, 494. | 1.8 | 12 |
| 42 | Formation of Stable Mixed LiF and Liâ€Alâ€Alloy Reinforced Interface Film for Lithium Metal Anodes. ChemistrySelect, 2019, 4, 7673-7678. | 0.7 | 7 |
| 43 | Realizing Interfacial Electronic Interaction within ZnS Quantum Dots/Nâ€rGO Heterostructures for Efficient Liâ€“CO<sub>2</sub> Batteries. Advanced Energy Materials, 2019, 9, 1901806. | 10.2 | 101 |
| 44 | Normalized Lithium Growth from the Nucleation Stage for Dendriteâ€Free Lithium Metal Anodes. Angewandte Chemie - International Edition, 2019, 58, 18246-18251. | 7.2 | 60 |
| 45 | Covalentâ€Organicâ€Frameworkâ€Based Liâ€“CO<sub>2</sub> Batteries. Advanced Materials, 2019, 31, e1905879. | 19.1 | 129 |
| 46 | Normalized Lithium Growth from the Nucleation Stage for Dendriteâ€Free Lithium Metal Anodes. Angewandte Chemie, 2019, 131, 18414-18419. | 1.6 | 10 |
| 47 | Synergetic enhancement of polysulfide chemisorption and electrocatalysis over bicontinuous MoN@N-rich carbon porous nano-octahedra for Liâ€“S batteries. Journal of Materials Chemistry A, 2019, 7, 21934-21943. | 5.2 | 37 |
| 48 | An artificial Li3PO4 solid electrolyte interphase layer to achieve petal-shaped deposition of lithium. Solid State Ionics, 2019, 333, 101-104. | 1.3 | 12 |
| 49 | Single-Atom Coated Separator for Robust Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2019, 11, 25147-25154. | 4.0 | 152 |
| 50 | High-Performance Solid Composite Polymer Electrolyte for all Solid-State Lithium Battery Through Facile Microstructure Regulation. Frontiers in Chemistry, 2019, 7, 388. | 1.8 | 32 |
| 51 | Towards high energy-high power dendrite-free lithium metal batteries: The novel hydrated vanadium oxide/grapheneâ€–silicon nitride/lithium system. Journal of Power Sources, 2019, 417, 14-20. | 4.0 | 9 |
| 52 | Expedient synthesis of E -hydrazone esters and 1 H -indazole scaffolds through heterogeneous single-atom platinum catalysis. Science Advances, 2019, 5, eaay1537. | 4.7 | 31 |
| 53 | Surface modification via a nanosized nitride material to stabilize lithium metal anode. Ceramics International, 2019, 45, 8045-8048. | 2.3 | 9 |
| 54 | Flexible Sub-Micro Carbon Fiber@CNTs as Anodes for Potassium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 5015-5021. | 4.0 | 69 |

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|---|---|---|---|
| 55 | Hosting Ultrahigh Areal Capacity and Dendrite-free Lithium via Porous Scaffold. ACS Sustainable Chemistry and Engineering, 2018, 6, 4776-4783. | 3.2 | 15 |
| 56 | Na<sub>3</sub>V<sub>2</sub>(PO<sub>4</sub>)<sub>2</sub>F<sub>3</sub>@C dispersed within carbon nanotube frameworks as a high tap density cathode for high-performance sodium-ion batteries. Journal of Materials Chemistry A, 2018, 6, 6007-6014. | 5.2 | 129 |
| 57 | Suppressing Dendritic Lithium Formation Using Porous Media in Lithium Metal-Based Batteries. Nano Letters, 2018, 18, 2067-2073. | 4.5 | 154 |
| 58 | Three-dimensional macroporous graphene monoliths with entrapped MoS<sub>2</sub>nanoflakes from single-step synthesis for high-performance sodium-ion batteries. RSC Advances, 2018, 8, 2477-2484. | 1.7 | 13 |
| 59 | Coupling plasmonic nanoparticles with TiO2 nanotube photonic crystals for enhanced dye-sensitized solar cells performance. Electrochimica Acta, 2018, 263, 373-381. | 2.6 | 23 |
| 60 | Facile fabrication of permselective g-C 3 N 4 separator for improved lithium-sulfur batteries. Electrochimica Acta, 2018, 272, 60-67. | 2.6 | 41 |
| 61 | Li2O-Reinforced Solid Electrolyte Interphase on Three-Dimensional Sponges for Dendrite-Free Lithium Deposition. Frontiers in Chemistry, 2018, 6, 517. | 1.8 | 20 |
| 62 | Concentrated electrolytes based on dual salts of LiFSI and LiODFB for lithium-metal battery. Electrochimica Acta, 2018, 289, 422-427. | 2.6 | 36 |
| 63 | A Scalable Approach to Dendriteâ€Free Lithium Anodes via Spontaneous Reduction of Sprayâ€Coated Graphene Oxide Layers. Advanced Materials, 2018, 30, e1801213. | 11.1 | 204 |
| 64 | Vertically Grown Edgeâ€Rich Graphene Nanosheets for Spatial Control of Li Nucleation. Advanced Energy Materials, 2018, 8, 1800564. | 10.2 | 145 |
| 65 | Graphene-Boosted, High-Performance Aqueous Zn-Ion Battery. ACS Applied Materials & Interfaces, 2018, 10, 25446-25453. | 4.0 | 269 |
| 66 | Improving the efficiency of dye-sensitized solar cell via tuning the Au plasmons inlaid TiO2 nanotube array photoanode. Journal of Applied Electrochemistry, 2018, 48, 1139-1149. | 1.5 | 10 |
| 67 | Dramatically Enhanced Ion Conductivity of Gel Polymer Electrolyte for Supercapacitor via h-BN Nanosheets Doping. Electrochimica Acta, 2017, 227, 455-461. | 2.6 | 40 |
| 68 | Dual Functionalities of Carbon Nanotube Films for Dendrite-Free and High Energyâ€“High Power Lithiumâ€“Sulfur Batteries. ACS Applied Materials & Interfaces, 2017, 9, 4605-4613. | 4.0 | 67 |
| 69 | Uniform growth of MoS 2 nanosheets on carbon nanofibers with enhanced electrochemical utilization for Li-ion batteries. Electrochimica Acta, 2017, 231, 396-402. | 2.6 | 53 |
| 70 | Enabling effective polysulfide trapping and high sulfur loading via a pyrrole modified graphene foam host for advanced lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2017, 5, 7309-7315. | 5.2 | 52 |
| 71 | Broadband and omnidirectional light harvesting enhancement in photovoltaic devices with aperiodic TiO2 nanotube photonic crystal. Journal of Power Sources, 2017, 345, 12-20. | 4.0 | 13 |
| 72 | Ferroelectricâ€Enhanced Polysulfide Trapping for Lithiumâ€“Sulfur Battery Improvement. Advanced Materials, 2017, 29, 1604724. | 11.1 | 149 |

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| 73 | Carbon Nanotubeâ€“Multilayered Graphene Edge Plane Coreâ€“Shell Hybrid Foams for Ultrahighâ€Performance Electromagneticâ€Interference Shielding. Advanced Materials, 2017, 29, 1701583. | 11.1 | 560 |
| 74 | Au/TiO<sub>2</sub> Hollow Spheres with Synergistic Effect of Plasmonic Enhancement and Light Scattering for Improved Dye-Sensitized Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 31691-31698. | 4.0 | 49 |
| 75 | Superior Potassium Ion Storage via Vertical MoS<sub>2</sub> â€œNanoâ€Roseâ€•with Expanded Interlayers on Graphene. Small, 2017, 13, 1701471. | 5.2 | 221 |
| 76 | Energy Storage: Superior Potassium Ion Storage via Vertical MoS<sub>2</sub> â€œNanoâ€Roseâ€•with Expanded Interlayers on Graphene (Small 42/2017). Small, 2017, 13, . | 5.2 | 2 |
| 77 | Enhanced Photocarrier Separation in Hierarchical Graphitic-C<sub>3</sub>N<sub>4</sub>-Supported CuInS<sub>2</sub> for Noble-Metal-Free Z-Scheme Photocatalytic Water Splitting. ACS Applied Materials & Interfaces, 2017, 9, 24577-24583. | 4.0 | 99 |
| 78 | Coaxial MoS2@Carbon Hybrid Fibers: A Low-Cost Anode Material for High-Performance Li-Ion Batteries. Materials, 2017, 10, 174. | 1.3 | 33 |
| 79 | Electrochemical and Printable Properties of Polydopamine Decorated Carbon Nanotube Ink. Science of Advanced Materials, 2017, 9, 2039-2044. | 0.1 | 4 |
| 80 | Use of a novel layered titanoniobate as an anode material for long cycle life sodium ion batteries. RSC Advances, 2016, 6, 35746-35750. | 1.7 | 27 |
| 81 | Nanomaterials for Stretchable Energy Storage and Conversion Devices. Nanoscience and Technology, 2016, , 159-191. | 1.5 | 3 |
| 82 | Highly Flexible Graphene/Mn<sub>3</sub>O<sub>4</sub> Nanocomposite Membrane as Advanced Anodes for Li-Ion Batteries. ACS Nano, 2016, 10, 6227-6234. | 7.3 | 291 |
| 83 | Toward Dendrite-Free Lithium Deposition via Structural and Interfacial Synergistic Effects of 3D Graphene@Ni Scaffold. ACS Applied Materials & Interfaces, 2016, 8, 26091-26097. | 4.0 | 152 |
| 84 | A Novel TiO2-Wrapped Activated Carbon Fiber/Sulfur Hybrid Cathode for High Performance Lithium Sulfur Batteries. Electrochimica Acta, 2016, 210, 415-421. | 2.6 | 34 |
| 85 | One-step synthesis of NiCo2S4 ultrathin nanosheets on conductive substrates as advanced electrodes for high-efficient energy storage. Journal of Power Sources, 2016, 306, 100-106. | 4.0 | 163 |
| 86 | All-manganese-based Li-ion batteries with high rate capability and ultralong cycle life. Nano Energy, 2016, 22, 524-532. | 8.2 | 84 |
| 87 | Controlled synthesis of NiCo2S4 nanostructures on nickel foams for high-performance supercapacitors. Energy Storage Materials, 2016, 2, 1-7. | 9.5 | 59 |
| 88 | The importance of raw graphite size to the capacitive properties of graphene oxide. RSC Advances, 2016, 6, 17023-17028. | 1.7 | 10 |
| 89 | Graphene/Sulfur Hybrid Nanosheets from a Spaceâ€Confined â€œSaunaâ€•Reaction for Highâ€Performance Lithiumâ€“Sulfur Batteries. Advanced Materials, 2015, 27, 5936-5942. | 11.1 | 124 |
| 90 | Synthesis of ultralong MnO/C coaxial nanowires as freestanding anodes for high-performance lithium ion batteries. Journal of Materials Chemistry A, 2015, 3, 13699-13705. | 5.2 | 133 |

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| 91 | Advanced engineering of nanostructured carbons for lithiumâ€“sulfur batteries. Nano Energy, 2015, 15, 413-444. | 8.2 | 226 |
| 92 | Enhanced efficiencies in thin and semi-transparent dye-sensitized solar cells under low photon flux conditions using TiO2 nanotube photonic crystal. Journal of Power Sources, 2015, 293, 170-177. | 4.0 | 24 |
| 93 | Photonic crystals for sensitized solar cells: fabrication, properties, and applications. Journal of Materials Chemistry C, 2015, 3, 10665-10686. | 2.7 | 41 |
| 94 | Facile fabrication of MnO/C coreâ€“shell nanowires as an advanced anode material for lithium-ion batteries. Electrochimica Acta, 2015, 180, 990-997. | 2.6 | 82 |
| 95 | Fabrication of a novel TiO<sub>2</sub>/S composite cathode for high performance lithiumâ€“sulfur batteries. RSC Advances, 2015, 5, 77348-77353. | 1.7 | 29 |
| 96 | Aligned TiO<sub>2</sub> nanotube/nanoparticle heterostructures with enhanced electrochemical performance as three-dimensional anode for lithium-ion microbatteries. Nanotechnology, 2014, 25, 455401. | 1.3 | 11 |
| 97 | A strategy to reduce the angular dependence of a dye-sensitized solar cell by coupling to a TiO<sub>2</sub>nanotube photonic crystal. Nanoscale, 2014, 6, 13060-13067. | 2.8 | 21 |
| 98 | Fabrication of iron oxide nanotube arrays by electrochemical anodization. Corrosion Science, 2014, 88, 66-75. | 3.0 | 60 |
| 99 | Materials and Structures for Stretchable Energy Storage and Conversion Devices. Advanced Materials, 2014, 26, 3592-3617. | 11.1 | 363 |
| 100 | Aperiodic TiO2 Nanotube Photonic Crystal: Full-Visible-Spectrum Solar Light Harvesting in Photovoltaic Devices. Scientific Reports, 2014, 4, 6442. | 1.6 | 32 |
| 101 | Nano-Array Electrodes for Next-Generation Lithium-Ion Batteries. Science of Advanced Materials, 2014, 6, 863-874. | 0.1 | 7 |
| 102 | A Oneâ€Step and Binderâ€Free Method to Fabricate Hierarchical Nickelâ€Based Supercapacitor Electrodes with Excellent Performance. Advanced Functional Materials, 2013, 23, 3675-3681. | 7.8 | 144 |
| 103 | Enhanced Light Harvesting in Dye-Sensitized Solar Cells Coupled with Titania Nanotube Photonic Crystals: A Theoretical Study. ACS Applied Materials & Interfaces, 2013, 5, 13022-13028. | 4.0 | 22 |
| 104 | Iron supported C@Fe3O4 nanotube array: a new type of 3D anode with low-cost for high performance lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 5560. | 6.7 | 77 |
| 105 | Design and coupling of multifunctional TiO2 nanotube photonic crystal to nanocrystalline titania layer as semi-transparent photoanode for dye-sensitized solar cell. Energy and Environmental Science, 2012, 5, 9881. | 15.6 | 130 |
| 106 | Polyaniline nanowire array encapsulated in titania nanotubes as a superior electrode for supercapacitors. Nanoscale, 2011, 3, 2202. | 2.8 | 146 |
| 107 | Direct and Seamless Coupling of TiO<sub>2</sub> Nanotube Photonic Crystal to Dyeâ€Sensitized Solar Cell: A Singleâ€Step Approach. Advanced Materials, 2011, 23, 5624-5628. | 11.1 | 145 |
| 108 | Photovoltaic Devices: Direct and Seamless Coupling of TiO2 Nanotube Photonic Crystal to Dye-Sensitized Solar Cell: A Single-Step Approach (Adv. Mater. 47/2011). Advanced Materials, 2011, 23, 5623-5623. | 11.1 | 2 |

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| 109 | Highly ordered iron oxide nanotube arrays as electrodes for electrochemical energy storage. Electrochemistry Communications, 2011, 13, 657-660. | 2.3 | 286 |
| 110 | Lithium oxalyldifluoroborate/carbonate electrolytes for LiFePO4/artificial graphite lithium-ion cells. Journal of Power Sources, 2010, 195, 5344-5350. | 4.0 | 67 |