# Yongming Sun

List of Publications by Year
in descending order

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| | | 20817 | 43889 |
|---|---|---|---|
| 92 | 18,544 | 60 | 91 |
| papers | citations | h-index | g-index |

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|---|---|---|---|
| 93 | 93 | 93 | 17051 |
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Stressâ€Regulation Design of Lithium Alloy Electrode toward Stable Battery Cycling. Energy and Environmental Materials, 2023, 6, . | 12.8 | 11 |
| 2 | Implications of Na-ion solvation on Na anodeâ€“electrolyte interphase. Trends in Chemistry, 2022, 4, 48-59. | 8.5 | 26 |
| 3 | Reversible aqueous Zn battery anode enabled by a stable complexation adsorbent interface. EcoMat, 2022, 4, . | 11.9 | 23 |
| 4 | Insights on â€œnitrate saltâ€•in lithium anode for stabilized solid electrolyte interphase. , 2022, 4, 12-20. | | 22 |
| 5 | Ultrafast Metal Electrodeposition Revealed by In Situ Optical Imaging and Theoretical Modeling towards Fastâ€Charging Zn Battery Chemistry. Angewandte Chemie, 2022, 134, . | 2.0 | 13 |
| 6 | Stable interphase chemistry of textured Zn anode for rechargeable aqueous batteries. Science Bulletin, 2022, 67, 716-724. | 9.0 | 80 |
| 7 | Ultrafast Metal Electrodeposition Revealed by In Situ Optical Imaging and Theoretical Modeling towards Fastâ€Charging Zn Battery Chemistry. Angewandte Chemie - International Edition, 2022, 61, . | 13.8 | 82 |
| 8 | Stabilized Li metal anode with robust C-Li3N interphase for high energy density batteries. Energy Storage Materials, 2022, 46, 563-569. | 18.0 | 28 |
| 9 | Embedment of red phosphorus in anthracite matrix for stable battery anode. Rare Metals, 2022, 41, 2819-2825. | 7.1 | 2 |
| 10 | Li plating on alloy with superior electro-mechanical stability for high energy density anode-free batteries. Energy Storage Materials, 2022, 49, 135-143. | 18.0 | 23 |
| 11 | Realizing High Utilization of High-Mass-Loading Sulfur Cathode via Electrode Nanopore Regulation. Nano Letters, 2022, 22, 5982-5989. | 9.1 | 14 |
| 12 | Enhanced processability and electrochemical cyclability of metallic sodium at elevated temperature using sodium alloy composite. Energy Storage Materials, 2021, 35, 310-316. | 18.0 | 26 |
| 13 | A Replacement Reaction Enabled Interdigitated Metal/Solid Electrolyte Architecture for Battery Cycling at 20 mA cm<sup>â€“2</sup> and 20 mAh cm<sup>â€“2</sup>. Journal of the American Chemical Society, 2021, 143, 3143-3152. | 13.7 | 132 |
| 14 | Roomâ€Temperature Sodiumâ€“Sulfur Batteries and Beyond: Realizing Practical High Energy Systems through Anode, Cathode, and Electrolyte Engineering. Advanced Energy Materials, 2021, 11, 2003493. | 19.5 | 114 |
| 15 | Addressing the Low Solubility of a Solid Electrolyte Interphase Stabilizer in an Electrolyte by Composite Battery Anode Design. ACS Applied Materials & Interfaces, 2021, 13, 13354-13361. | 8.0 | 23 |
| 16 | Manipulating Oxidation of Silicon with Fresh Surface Enabling Stable Battery Anode. Nano Letters, 2021, 21, 3127-3133. | 9.1 | 33 |
| 17 | A Saltâ€inâ€Metal Anode: Stabilizing the Solid Electrolyte Interphase to Enable Prolonged Battery Cycling. Advanced Functional Materials, 2021, 31, 2010602. | 14.9 | 69 |
| 18 | In situ formation of ionically conductive nanointerphase on Si particles for stable battery anode. Science China Chemistry, 2021, 64, 1417-1425. | 8.2 | 28 |

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|---|---|---|---|
| 19 | Ultrafine Sodium Sulfide Clusters Confined in Carbon Nano-polyhedrons as High-Efficiency Presodiation Reagents for Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2021, 13, 27057-27065. | 8.0 | 17 |
| 20 | Manipulating Redox Kinetics of Sulfur Species Using Mottâ€“Schottky Electrocatalysts for Advanced Lithiumâ€“Sulfur Batteries. Nano Letters, 2021, 21, 6656-6663. | 9.1 | 145 |
| 21 | Promises and Challenges of the Practical Implementation of Prelithiation in Lithiumâ€Ion Batteries. Advanced Energy Materials, 2021, 11, 2101565. | 19.5 | 112 |
| 22 | Localizing concentrated electrolyte in pore geometry for highly reversible aqueous Zn metal batteries. Chemical Engineering Journal, 2021, 420, 129642. | 12.7 | 56 |
| 23 | Circumventing chemo-mechanical failure of Sn foil battery anode by grain refinement and elaborate porosity design. Journal of Energy Chemistry, 2021, 62, 477-484. | 12.9 | 19 |
| 24 | Prelithiated Li-Enriched Gradient Interphase toward Practical High-Energy NMCâ€“Silicon Full Cell. ACS Energy Letters, 2021, 6, 320-328. | 17.4 | 50 |
| 25 | Doctorâ€Blade Casting Fabrication of Ultrathin Li Metal Electrode for Highâ€Energyâ€Density Batteries. Advanced Energy Materials, 2021, 11, 2102259. | 19.5 | 40 |
| 26 | Closely Compacted TiNb<sub>2</sub>O<sub>7</sub>-C Assembly for Fast-Charging Battery Anodes. ACS Applied Energy Materials, 2021, 4, 12319-12325. | 5.1 | 3 |
| 27 | Enhanced Chemical Immobilization and Catalytic Conversion of Polysulfide Intermediates Using Metallic Mo Nanoclusters for High-Performance Liâ€“S Batteries. ACS Nano, 2020, 14, 1148-1157. | 14.6 | 125 |
| 28 | Metal/LiF/Li<sub>2</sub>O Nanocomposite for Battery Cathode Prelithiation: Trade-off between Capacity and Stability. Nano Letters, 2020, 20, 546-552. | 9.1 | 72 |
| 29 | Electrolyte-Phobic Surface for the Next-Generation Nanostructured Battery Electrodes. Nano Letters, 2020, 20, 7455-7462. | 9.1 | 25 |
| 30 | Recycling of Lignin and Si Waste for Advanced Si/C Battery Anodes. ACS Applied Materials & Interfaces, 2020, 12, 57055-57063. | 8.0 | 49 |
| 31 | Conformal Prelithiation Nanoshell on LiCoO<sub>2</sub> Enabling High-Energy Lithium-Ion Batteries. Nano Letters, 2020, 20, 4558-4565. | 9.1 | 92 |
| 32 | Fast conversion and controlled deposition of lithium (poly)sulfides in lithium-sulfur batteries using high-loading cobalt single atoms. Energy Storage Materials, 2020, 30, 250-259. | 18.0 | 264 |
| 33 | A novel battery scheme: Coupling nanostructured phosphorus anodes with lithium sulfide cathodes. Nano Research, 2020, 13, 1383-1388. | 10.4 | 13 |
| 34 | Mechanical rolling formation of interpenetrated lithium metal/lithium tin alloy foil for ultrahigh-rate battery anode. Nature Communications, 2020, 11, 829. | 12.8 | 246 |
| 35 | Chemically resistant Cuâ€“Zn/Zn composite anode for long cycling aqueous batteries. Energy Storage Materials, 2020, 27, 205-211. | 18.0 | 307 |
| 36 | A Chemically Polished Zinc Metal Electrode with a Ridge-like Structure for Cycle-Stable Aqueous Batteries. ACS Applied Materials & Interfaces, 2020, 12, 23028-23034. | 8.0 | 65 |

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|---|---|---|---|
| 37 | Confining ultrafine Li3P nanoclusters in porous carbon for high-performance lithium-ion battery anode. Nano Research, 2020, 13, 1122-1126. | 10.4 | 19 |
| 38 | A Simple Electrodeâ€Level Chemical Presodiation Route by Solution Spraying to Improve the Energy Density of Sodiumâ€Ion Batteries. Advanced Functional Materials, 2019, 29, 1903795. | 14.9 | 85 |
| 39 | Engineering stable electrode-separator interfaces with ultrathin conductive polymer layer for high-energy-density Li-S batteries. Energy Storage Materials, 2019, 23, 261-268. | 18.0 | 149 |
| 40 | Composite lithium electrode with mesoscale skeleton via simple mechanical deformation. Science Advances, 2019, 5, eaau5655. | 10.3 | 79 |
| 41 | Design of Red Phosphorus Nanostructured Electrode for Fast-Charging Lithium-Ion Batteries with High Energy Density. Joule, 2019, 3, 1080-1093. | 24.0 | 168 |
| 42 | Direct electrochemical generation of supercooled sulfur microdroplets well below their melting temperature. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 765-770. | 7.1 | 39 |
| 43 | Robust Pinhole-free Li<sub>3</sub>N Solid Electrolyte Grown from Molten Lithium. ACS Central Science, 2018, 4, 97-104. | 11.3 | 197 |
| 44 | Reversible and selective ion intercalation through the top surface of few-layer MoS2. Nature Communications, 2018, 9, 5289. | 12.8 | 119 |
| 45 | Flexible and stable high-energy lithium-sulfur full batteries with only 100% oversized lithium. Nature Communications, 2018, 9, 4480. | 12.8 | 193 |
| 46 | A Dualâ€Crosslinking Design for Resilient Lithiumâ€Ion Conductors. Advanced Materials, 2018, 30, e1804142. | 21.0 | 128 |
| 47 | Stretchable Lithium Metal Anode with Improved Mechanical and Electrochemical Cycling Stability. Joule, 2018, 2, 1857-1865. | 24.0 | 132 |
| 48 | Self-healing SEI enables full-cell cycling of a silicon-majority anode with a coulombic efficiency exceeding 99.9%. Energy and Environmental Science, 2017, 10, 580-592. | 30.8 | 421 |
| 49 | Electrospun core-shell microfiber separator with thermal-triggered flame-retardant properties for lithium-ion batteries. Science Advances, 2017, 3, e1601978. | 10.3 | 245 |
| 50 | Atomic structure of sensitive battery materials and interfaces revealed by cryoâ€“electron microscopy. Science, 2017, 358, 506-510. | 12.6 | 1,039 |
| 51 | High-performance sodiumâ€“organic battery by realizing four-sodium storage in disodium rhodizonate. Nature Energy, 2017, 2, 861-868. | 39.5 | 372 |
| 52 | Stretchable Lithiumâ€Ion Batteries Enabled by Deviceâ€Scaled Wavy Structure and Elasticâ€Sticky Separator. Advanced Energy Materials, 2017, 7, 1701076. | 19.5 | 158 |
| 53 | Revealing Nanoscale Passivation and Corrosion Mechanisms of Reactive Battery Materials in Gas Environments. Nano Letters, 2017, 17, 5171-5178. | 9.1 | 88 |
| 54 | Stabilized Li3N for efficient battery cathode prelithiation. Energy Storage Materials, 2017, 6, 119-124. | 18.0 | 143 |

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|---|---|---|---|
| 55 | Lithium Sulfide/Metal Nanocomposite as a Highâ€Capacity Cathode Prelithiation Material. Advanced Energy Materials, 2016, 6, 1600154. | 19.5 | 87 |
| 56 | Entrapment of Polysulfides by a Blackâ€Phosphorusâ€Modified Separator for Lithiumâ€“Sulfur Batteries. Advanced Materials, 2016, 28, 9797-9803. | 21.0 | 453 |
| 57 | Designing high-energy lithiumâ€“sulfur batteries. Chemical Society Reviews, 2016, 45, 5605-5634. | 38.1 | 2,008 |
| 58 | Promises and challenges of nanomaterials for lithium-based rechargeable batteries. Nature Energy, 2016, 1, . | 39.5 | 1,388 |
| 59 | High-capacity battery cathode prelithiation to offset initial lithium loss. Nature Energy, 2016, 1, . | 39.5 | 265 |
| 60 | A Stretchable Graphitic Carbon/Si Anode Enabled by Conformal Coating of a Selfâ€Healing Elastic Polymer. Advanced Materials, 2016, 28, 2455-2461. | 21.0 | 197 |
| 61 | 3D Porous Spongeâ€Inspired Electrode for Stretchable Lithiumâ€Ion Batteries. Advanced Materials, 2016, 28, 3578-3583. | 21.0 | 247 |
| 62 | Carbothermic reduction synthesis of red phosphorus-filled 3D carbon material as a high-capacity anode for sodium ion batteries. Energy Storage Materials, 2016, 4, 130-136. | 18.0 | 167 |
| 63 | In Situ Chemical Synthesis of Lithium Fluoride/Metal Nanocomposite for High Capacity Prelithiation of Cathodes. Nano Letters, 2016, 16, 1497-1501. | 9.1 | 112 |
| 64 | Flexible fiber-shaped supercapacitors based on hierarchically nanostructured composite electrodes. Nano Research, 2015, 8, 1148-1158. | 10.4 | 188 |
| 65 | A Highly Reversible Room-Temperature Sodium Metal Anode. ACS Central Science, 2015, 1, 449-455. | 11.3 | 733 |
| 66 | A phosphoreneâ€“graphene hybrid material as a high-capacity anode for sodium-ion batteries. Nature Nanotechnology, 2015, 10, 980-985. | 31.5 | 1,287 |
| 67 | In-operando optical imaging of temporal and spatial distribution of polysulfides in lithium-sulfur batteries. Nano Energy, 2015, 11, 579-586. | 16.0 | 84 |
| 68 | Flexible Asymmetric Microâ€Supercapacitors Based on Bi<sub>2</sub>O<sub>3</sub> and MnO<sub>2</sub> Nanoflowers: Larger Areal Mass Promises Higher Energy Density. Advanced Energy Materials, 2015, 5, 1401882. | 19.5 | 479 |
| 69 | Electrospun Conformal Li<sub>4</sub>Ti<sub>5</sub>O<sub>12</sub>/C Fibers for Highâ€Rate Lithiumâ€Ion Batteries. ChemElectroChem, 2014, 1, 611-616. | 3.4 | 43 |
| 70 | Insight into the Electrode Mechanism in Lithiumâ€Sulfur Batteries with Ordered Microporous Carbon Confined Sulfur as the Cathode. Advanced Energy Materials, 2014, 4, 1301473. | 19.5 | 418 |
| 71 | A reversible and stable flake-like LiCoO2 cathode for lithium ion batteries. Chemical Communications, 2014, 50, 1962. | 4.1 | 47 |
| 72 | Two-dimensional layered transition metal disulphides for effective encapsulation of high-capacity lithium sulphide cathodes. Nature Communications, 2014, 5, 5017. | 12.8 | 530 |

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|---|---|---|---|
| 73 | Highly porous Li 4 Ti 5 O 12 /C nanofibers for ultrafast electrochemical energy storage. Nano Energy, 2014, 10, 163-171. | 16.0 | 165 |
| 74 | Encapsulation of MnO Nanocrystals in Electrospun Carbon Nanofibers as High-Performance Anode Materials for Lithium-Ion Batteries. Scientific Reports, 2014, 4, 4229. | 3.3 | 131 |
| 75 | Microwaveâ€Induced Inâ€...Situ Synthesis of Zn<sub>2</sub>GeO<sub>4</sub>/Nâ€Doped Graphene Nanocomposites and Their Lithiumâ€Storage Properties. Chemistry - A European Journal, 2013, 19, 6027-6033. | 3.3 | 83 |
| 76 | Reconstruction of Conformal Nanoscale MnO on Graphene as a Highâ€Capacity and Longâ€Life Anode Material for Lithium Ion Batteries. Advanced Functional Materials, 2013, 23, 2436-2444. | 14.9 | 770 |
| 77 | Controlled Synthesis of Mesoporous MnO/C Networks by Microwave Irradiation and Their Enhanced Lithium-Storage Properties. ACS Applied Materials & Interfaces, 2013, 5, 1997-2003. | 8.0 | 162 |
| 78 | Electrospun porous LiNb3O8 nanofibers with enhanced lithium-storage properties. Journal of Materials Chemistry A, 2013, 1, 15053. | 10.3 | 39 |
| 79 | Self-assembly of hybrid Fe2Mo3O8â€“reduced graphene oxide nanosheets with enhanced lithium storage properties. Journal of Materials Chemistry A, 2013, 1, 4468. | 10.3 | 40 |
| 80 | Synthesis of Amorphous FeOOH/Reduced Graphene Oxide Composite by Infrared Irradiation and Its Superior Lithium Storage Performance. ACS Applied Materials & Interfaces, 2013, 5, 10145-10150. | 8.0 | 52 |
| 81 | Self-assembled mesoporous CoO nanodisks as a long-life anode material for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 13826. | 6.7 | 119 |
| 82 | Electrospun porous ZnCo2O4 nanotubes as a high-performance anode material for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 8916. | 6.7 | 328 |
| 83 | Surface modification of electrospun TiO2 nanofibers via layer-by-layer self-assembly for high-performance lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 4910. | 6.7 | 60 |
| 84 | Porous carbon-modified MnO disks prepared by a microwave-polyol process and their superior lithium-ion storage properties. Journal of Materials Chemistry, 2012, 22, 19190. | 6.7 | 150 |
| 85 | Ultrathin CoO/Graphene Hybrid Nanosheets: A Highly Stable Anode Material for Lithium-Ion Batteries. Journal of Physical Chemistry C, 2012, 116, 20794-20799. | 3.1 | 154 |
| 86 | Ultrafine MoO<sub>2</sub>nanoparticles embedded in a carbon matrix as a high-capacity and long-life anode for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 425-431. | 6.7 | 175 |
| 87 | Layer-by-layer assembled MoO2â€“graphene thin film as a high-capacity and binder-free anode for lithium-ion batteries. Nanoscale, 2012, 4, 4707. | 5.6 | 127 |
| 88 | Hierarchical self-assembly of Mn2Mo3O8â€“graphene nanostructures and their enhanced lithium-storage properties. Journal of Materials Chemistry, 2011, 21, 17229. | 6.7 | 50 |
| 89 | Morphosynthesis of a hierarchical MoO2 nanoarchitecture as a binder-free anode for lithium-ion batteries. Energy and Environmental Science, 2011, 4, 2870. | 30.8 | 245 |
| 90 | Self-Assembled Hierarchical MoO<sub>2</sub>/Graphene Nanoarchitectures and Their Application as a High-Performance Anode Material for Lithium-Ion Batteries. ACS Nano, 2011, 5, 7100-7107. | 14.6 | 611 |

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|---|---|---|---|
| 91 | Electrospinning of carbon-coated MoO2 nanofibers with enhanced lithium-storage properties. Physical Chemistry Chemical Physics, 2011, 13, 16735. | 2.8 | 113 |
| 92 | Large-scale synthesis of Ag1.8Mn8O16 nanorods and their electrochemical lithium-storage properties. Journal of Nanoparticle Research, 2011, 13, 3139-3148. | 1.9 | 14 |