

Ya-Jun Cheng

List of Publications by Year in descending order

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5599
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| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Silicon based lithium-ion battery anodes: A chronicle perspective review. Nano Energy, 2017, 31, 113-143. | 8.2 | 1,122 |
| 2 | A Chronicle Review of Nonsilicon (Sn, Sb, Ge)-Based Lithium/Sodium-Ion Battery Alloying Anodes. Small Methods, 2020, 4, 2000218. | 4.6 | 220 |
| 3 | Super-tough double-network hydrogels reinforced by covalently compositing with silica-nanoparticles. Soft Matter, 2012, 8, 6048. | 1.2 | 197 |
| 4 | Super Tough, Ultrastretchable, and Thermoresponsive Hydrogels with Functionalized Triblock Copolymer Micelles as Macro-Cross-Linkers. ACS Macro Letters, 2014, 3, 496-500. | 2.3 | 176 |
| 5 | Morphology Phase Diagram of Ultrathin Anatase TiO ₂ Films Templated by a Single PS-b-PEO Block Copolymer. Journal of the American Chemical Society, 2006, 128, 4658-4674. | 6.6 | 166 |
| 6 | On the Adhesion between Fine Particles and Nanocontacts: An Atomic Force Microscope Study. Langmuir, 2006, 22, 2171-2184. | 1.6 | 156 |
| 7 | Self-Templating Construction of 3D Hierarchical Macro-/Mesoporous Silicon from 0D Silica Nanoparticles. ACS Nano, 2017, 11, 889-899. | 7.3 | 100 |
| 8 | <i>In situ</i> formation of silver nanoparticles in photocrosslinking polymers. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 97B, 124-131. | 1.6 | 93 |
| 9 | Magnetic nanohydroxyapatite/PVA composite hydrogels for promoted osteoblast adhesion and proliferation. Colloids and Surfaces B: Biointerfaces, 2013, 103, 318-325. | 2.5 | 93 |
| 10 | Fabrication and characterization of nanostructured titania films with integrated function from inorganic-organic hybrid materials. Chemical Society Reviews, 2012, 41, 5131. | 18.7 | 90 |
| 11 | Tough nanocomposite double network hydrogels reinforced with clay nanorods through covalent bonding and reversible chain adsorption. Journal of Materials Chemistry B, 2014, 2, 1539. | 2.9 | 90 |
| 12 | Silicon/carbon lithium-ion battery anode with 3D hierarchical macro-/mesoporous silicon network: Self-templating synthesis via magnesiothermic reduction of silica/carbon composite. Journal of Power Sources, 2019, 412, 93-104. | 4.0 | 77 |
| 13 | Tough and Fatigue Resistant Biomimetic Hydrogels of Interlaced Self-Assembled Conjugated Polymer Belts with a Polyelectrolyte Network. Chemistry of Materials, 2014, 26, 3522-3529. | 3.2 | 68 |
| 14 | Si/Ag/C Nanohybrids with <i>In Situ</i> Incorporation of Super-Small Silver Nanoparticles: Tiny Amount, Huge Impact. ACS Nano, 2018, 12, 861-875. | 7.3 | 67 |
| 15 | Cocktail therapy towards high temperature/high voltage lithium metal battery via solvation sheath structure tuning. Energy Storage Materials, 2021, 38, 599-608. | 9.5 | 53 |
| 16 | Bronze-Phase TiO ₂ as Anode Materials in Lithium and Sodium-Ion Batteries. Advanced Functional Materials, 2022, 32, . | 7.8 | 53 |
| 17 | Nanowear on Polymer Films of Different Architecture. Langmuir, 2007, 23, 3150-3156. | 1.6 | 51 |
| 18 | Scalable <i>In Situ</i> Synthesis of Li ₄ Ti ₅ O ₁₂ /Carbon Nanohybrid with Supersmall Li ₄ Ti ₅ O ₁₂ Nanoparticles Homogeneously Embedded in Carbon Matrix. ACS Applied Materials & Interfaces, 2018, 10, 2591-2602. | 4.0 | 47 |

| # | ARTICLE | IF | CITATIONS |
|----|---|-----|-----------|
| 19 | Anatase titanium dioxide as rechargeable ion battery electrode - A chronological review. <i>Energy Storage Materials</i> , 2022, 45, 201-264. | 9.5 | 45 |
| 20 | Silicon lithium-ion battery anode with enhanced performance: Multiple effects of silver nanoparticles. <i>Journal of Materials Science and Technology</i> , 2018, 34, 1902-1911. | 5.6 | 44 |
| 21 | Ultrathin Anatase TiO ₂ Films with Stable Vesicle Morphology Templated by PMMA-b-PEO. <i>Small</i> , 2007, 3, 1379-1382. | 5.2 | 42 |
| 22 | Rational design of 3D N-doped carbon nanosheet framework encapsulated ultrafine ZnO nanocrystals as superior performance anode materials in lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2019, 7, 25155-25164. | 5.2 | 42 |
| 23 | From ~20 °C to 150 °C: a lithium secondary battery with a wide temperature window obtained via manipulated competitive decomposition in electrolyte solution. <i>Journal of Materials Chemistry A</i> , 2021, 9, 9307-9318. | 5.2 | 40 |
| 24 | Effects of filler type and content on mechanical properties of photopolymerizable composites measured across two-dimensional combinatorial arrays. <i>Acta Biomaterialia</i> , 2009, 5, 2084-2094. | 4.1 | 39 |
| 25 | Green Facile Scalable Synthesis of Titania/Carbon Nanocomposites: New Use of Old Dental Resins. <i>ACS Applied Materials & Interfaces</i> , 2014, 6, 18461-18468. | 4.0 | 38 |
| 26 | Natural polyphenol-stabilised highly crosslinked UHMWPE with high mechanical properties and low wear for joint implants. <i>Journal of Materials Chemistry B</i> , 2013, 1, 4727. | 2.9 | 36 |
| 27 | Facile Scalable Synthesis of TiO ₂ /Carbon Nanohybrids with Ultrasmall TiO ₂ Nanoparticles Homogeneously Embedded in Carbon Matrix. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 24247-24255. | 4.0 | 36 |
| 28 | Silicon Oxycarbide/Carbon Nanohybrids with Tiny Silicon Oxycarbide Particles Embedded in Free Carbon Matrix Based on Photoactive Dental Methacrylates. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 13982-13992. | 4.0 | 36 |
| 29 | Surface-Supported, Highly Ordered Macroporous Crystalline TiO ₂ Thin Films Robust up to 1000 °C. <i>Chemistry of Materials</i> , 2008, 20, 6580-6582. | 3.2 | 35 |
| 30 | Fabrication of hollow porous PLGA microspheres for controlled protein release and promotion of cell compatibility. <i>Chinese Chemical Letters</i> , 2013, 24, 710-714. | 4.8 | 31 |
| 31 | Direct Regeneration of Spent Lithium Iron Phosphate via a Low-Temperature Molten Salt Process Coupled with a Reductive Environment. <i>Industrial & Engineering Chemistry Research</i> , 2022, 61, 3831-3839. | 1.8 | 31 |
| 32 | Morphology Transition in Ultrathin Titania Films: From Pores to Lamellae. <i>Macromolecular Rapid Communications</i> , 2007, 28, 1392-1396. | 2.0 | 30 |
| 33 | A fast and efficient method for selective extraction of lithium from spent lithium iron phosphate battery. <i>Environmental Technology and Innovation</i> , 2021, 23, 101569. | 3.0 | 29 |
| 34 | Nanostructured TiO ₂ Films Templated by Amphiphilic Dendritic Core-Shell Macromolecules: From Isolated Nanorings to Continuous 2D Mesoporous Networks. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 8400-8403. | 7.2 | 28 |
| 35 | Surface functionalized barium sulfate nanoparticles: controlled in situ synthesis and application in bone cement. <i>Journal of Materials Chemistry B</i> , 2014, 2, 1264-1274. | 2.9 | 28 |
| 36 | Dental Resin Monomer Enables Unique NbO ₂ /Carbon Lithium-Ion Battery Negative Electrode with Exceptional Performance. <i>Advanced Functional Materials</i> , 2019, 29, 1904961. | 7.8 | 26 |

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|----|--|-----|-----------|
| 37 | Modification of the Morphology of P(S-b-EO) Templated Thin TiO ₂ Films by Swelling with PS Homopolymer. <i>Langmuir</i> , 2007, 23, 10299-10306. | 1.6 | 24 |
| 38 | Rational Design and Mechanical Understanding of Three-Dimensional Macro-/Mesoporous Silicon Lithium-Ion Battery Anodes with a Tunable Pore Size and Wall Thickness. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 43785-43797. | 4.0 | 24 |
| 39 | Stable Electrode/Electrolyte Interface for High-Voltage NCM 523 Cathode Constructed by Synergistic Positive and Passive Approaches. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 57107-57117. | 4.0 | 23 |
| 40 | Stabilization of highly crosslinked ultra high molecular weight polyethylene with natural polyphenols. <i>Polymer Degradation and Stability</i> , 2014, 105, 197-205. | 2.7 | 22 |
| 41 | Microporous Binder for the Silicon-Based Lithium-Ion Battery Anode with Exceptional Rate Capability and Improved Cyclic Performance. <i>Langmuir</i> , 2020, 36, 2003-2011. | 1.6 | 22 |
| 42 | CO ₂ treatment enables non-hazardous, reliable, and efficacious recovery of spent Li(Ni _{0.5} Co _{0.2} Mn _{0.3})O ₂ cathodes. <i>Green Chemistry</i> , 2022, 24, 779-789. | 4.6 | 22 |
| 43 | The first supramolecular architectures assembled by infinite hydrogen-bonded, protonated nucleobase-water ribbons and unusual polyiodide frameworks. <i>CrystEngComm</i> , 2001, 3, 237-242. | 1.3 | 21 |
| 44 | Investigation of micromechanical cantilever sensors with microfocus grazing incidence small-angle x-ray scattering. <i>Applied Physics Letters</i> , 2006, 89, 054101. | 1.5 | 20 |
| 45 | Vacuum-Free, All-Air Processed Organic Photovoltaics with over 11% Efficiency and Promoted Stability Using Layer-by-Layer Codoped Polymeric Electrodes. <i>Solar Rrl</i> , 2020, 4, 1900543. | 3.1 | 19 |
| 46 | Mesoporous GeO ₂ /Ge/C as a Highly Reversible Anode Material with High Specific Capacity for Lithium-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 47002-47009. | 4.0 | 18 |
| 47 | Synergistic effects from super-small sized TiO ₂ and SiO _x nanoparticles within TiO ₂ /SiO _x /carbon nanohybrid lithium-ion battery anode. <i>Ceramics International</i> , 2019, 45, 14327-14337. | 2.3 | 17 |
| 48 | Poly(siloxane imide) Binder for Silicon-Based Lithium-Ion Battery Anodes via Rigidity/Softness Coupling. <i>Chemistry - an Asian Journal</i> , 2020, 15, 2674-2680. | 1.7 | 17 |
| 49 | Sulfur is a New High-Performance Additive toward High-Voltage LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ Cathode: Tiny Amount, Huge Impact. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 18648-18657. | 4.0 | 17 |
| 50 | Novel sheet-like supramolecular architectures constructed from infinite hydrogen-bonded, protonated adenine-water-halide and polyiodide ribbons. <i>New Journal of Chemistry</i> , 2002, 26, 1360-1364. | 1.4 | 15 |
| 51 | Scalable Synthesis of Hierarchical Antimony/Carbon Micro-/Nanohybrid Lithium/Sodium-Ion Battery Anodes Based on Dimethacrylate Monomer. <i>Acta Metallurgica Sinica (English Letters)</i> , 2018, 31, 910-922. | 1.5 | 15 |
| 52 | Distinctive Formation of Bifunctional ZnCoS-rGO 3D Hollow Microsphere Flowers with Excellent Energy Storage Performances. <i>Chemistry of Materials</i> , 2022, 34, 5896-5911. | 3.2 | 15 |
| 53 | MnO/Metal/Carbon Nanohybrid Lithium-Ion Battery Anode With Enhanced Electrochemical Performance: Universal Facile Scalable Synthesis and Fundamental Understanding. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900335. | 1.9 | 14 |
| 54 | Key Factors for Template-Oriented Porous Titania Synthesis: Solvents and Catalysts. <i>Small Methods</i> , 2020, 4, 1900689. | 4.6 | 14 |

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|----|---|------|-----------|
| 55 | Role of Nickel Nanoparticles in High-Performance TiO ₂ /Ni/Carbon Nanohybrid Lithium/Sodium-Ion Battery Anodes. <i>Chemistry - an Asian Journal</i> , 2019, 14, 1557-1569. | 1.7 | 13 |
| 56 | Protective and ion conductive: High-Rate Ni-Rich cathode with enhanced cyclic stability via One-Step bifunctional dual-layer coating. <i>Chemical Engineering Journal</i> , 2022, 431, 134031. | 6.6 | 13 |
| 57 | Morphology Evolution in Mesoporous Titania Block Copolymer Composite Films with Increasing Sol-Gel Reaction Time. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 1127-1133. | 1.0 | 12 |
| 58 | Controlled In Situ Nanocavitation in Polymeric Materials. <i>Advanced Materials</i> , 2011, 23, 409-413. | 11.1 | 11 |
| 59 | Controlled in situ synthesis of surface functionalized BaSO ₄ nanoparticles for improved bone cement reinforcement. <i>Journal of Materials Chemistry B</i> , 2013, 1, 4043. | 2.9 | 11 |
| 60 | Template-Induced Growth of Sputter-Deposited Gold Nanoparticles on Ordered Porous TiO ₂ Thin Films for Surface-Enhanced Raman Scattering Sensors. <i>ACS Applied Nano Materials</i> , 2022, 5, 7492-7501. | 2.4 | 11 |
| 61 | SnO ₂ /Sn/Carbon nanohybrid lithium-ion battery anode with high reversible capacity and excellent cyclic stability. <i>Nano Select</i> , 2021, 2, 642-653. | 1.9 | 10 |
| 62 | One Stone for Multiple Birds: A Versatile Cross-Linked Poly(dimethyl siloxane) Binder Boosts Cycling Life and Rate Capability of an NCM 523 Cathode at 4.6 V. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 16245-16257. | 4.0 | 10 |
| 63 | Effects of Sample Preparation on Bacterial Colonization of Polymers. <i>Langmuir</i> , 2010, 26, 2659-2664. | 1.6 | 9 |
| 64 | A Facile Route to Reassemble Titania Nanoparticles Into Ordered Chain-Like Networks on Substrate. <i>Macromolecular Rapid Communications</i> , 2012, 33, 218-224. | 2.0 | 9 |
| 65 | Impact of CO ₂ activation on the structure, composition, and performance of Sb/C nanohybrid lithium/sodium-ion battery anodes. <i>Nanoscale Advances</i> , 2021, 3, 1942-1953. | 2.2 | 9 |
| 66 | Direct Recycling of Spent LiNi _{0.5} Co _{0.2} Mn _{0.3} O ₂ Cathodes Based on Single Oxalic Acid Leaching and Regeneration under Mild Conditions Assisted by Lithium Acetate. <i>Energy & Fuels</i> , 2022, 36, 6552-6559. | 2.5 | 9 |
| 67 | Generalized Synthesis of Mesoporous Rare Earth Oxide Thin Films through Amphiphilic Ionic Block Copolymer Templating. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 1251-1257. | 1.0 | 8 |
| 68 | Template-free synthesis of titania architectures with controlled morphology evolution. <i>Journal of Materials Science</i> , 2016, 51, 3941-3956. | 1.7 | 8 |
| 69 | Exciton diffusion controlled quantum efficiency in hybrid dye sensitized solar cells. <i>Physical Chemistry Chemical Physics</i> , 2009, 11, 1604. | 1.3 | 7 |
| 70 | Solvothermal synthesis of hierarchical Eu ₂ O ₃ nanostructures templated by PS-b-PMAA: morphology control via simple variation of water contents. <i>Journal of Materials Chemistry A</i> , 2015, 3, 5789-5793. | 5.2 | 7 |
| 71 | Carbon-emcoating architecture boosts lithium storage of Nb ₂ O ₅ . <i>Science China Materials</i> , 2021, 64, 1071-1086. | 3.5 | 7 |
| 72 | Multidimensional Morphology Control for PS- <i>b</i> -PEO-VP Templated Mesoporous Iron (III) Oxide Thin Films. <i>Advanced Materials Interfaces</i> , 2021, 8, 2100141. | 1.9 | 6 |

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|----|---|-----|-----------|
| 73 | Integrated Spin-Coated Barrier Layers a Reasonable Idea?. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 2007, 37, 315-320. | 0.6 | 5 |
| 74 | From Spherical Mesopores to Worm-Shaped Mesopores: Morphology Transition in Titania-Polystyrene-b-poly(ethylene oxide) Composite Films with Increasing Sol-Gel Reaction Time. European Journal of Inorganic Chemistry, 2014, 2014, 836-844. | 1.0 | 5 |
| 75 | Porous titania/carbon hybrid microspheres templated by in situ formed polystyrene colloids. Journal of Colloid and Interface Science, 2016, 469, 242-256. | 5.0 | 5 |
| 76 | Mutual Performance Enhancement within Dual N-doped TiO ₂ /Si/C Nanohybrid Lithium-Ion Battery Anode. ChemistrySelect, 2021, 6, 141-153. | 0.7 | 5 |
| 77 | Si/Cu/C Nanohybrid Lithium-Ion Battery Anode with <i>In Situ</i> Incorporation of Nonagglomerated Super-Small Copper Nanoparticles Based on Epoxy Resin. Energy & Fuels, 2021, 35, 6250-6264. | 2.5 | 5 |
| 78 | Less is more: tiny amounts of insoluble multi-functional nanoporous additives play a big role in lithium secondary batteries. Journal of Materials Chemistry A, 2022, 10, 8047-8058. | 5.2 | 5 |
| 79 | Fabrication of Metal-Block-Copolymer Composite Films by a Palladium-Catalyzed Electroless Nickel-Plating Process. Macromolecular Rapid Communications, 2005, 26, 613-619. | 2.0 | 4 |
| 80 | Spatial Effects between Two 3D Self-Supported Carbon-Nanotube-Based Skeleton as Binder-Free Cathodes for Lithium-Sulfur Batteries. ChemistrySelect, 2020, 5, 11383-11390. | 0.7 | 4 |
| 81 | In Situ Incorporation of Super-Small Metallic High Capacity Nanoparticles and Mesoporous Structures for High-Performance TiO ₂ /SnO ₂ /Sn/Carbon Nanohybrid Lithium-Ion Battery Anodes. Energy Technology, 2020, 8, 2000034. | 1.8 | 4 |
| 82 | Tailoring the Optical Properties of Sputter-Deposited Gold Nanostructures on Nanostructured Titanium Dioxide Templates Based on In Situ Grazing-Incidence Small-Angle X-ray Scattering Determined Growth Laws. ACS Applied Materials & Interfaces, 2021, 13, 14728-14740. | 4.0 | 4 |
| 83 | Thermosetting High-Rate and High-Safety Polymer/Inorganic Composite Separator for Lithium-Ion Battery through a Fast Scalable Photo Cross-Linking Process. Energy & Fuels, 2021, 35, 18746-18755. | 2.5 | 4 |
| 84 | In Situ GISAXS Observation and Large Area Homogeneity Study of Slot-Die Printed PS- <i>b</i> -P4VP and PS- <i>b</i> -P4VP/FeCl ₃ Thin Films. ACS Applied Materials & Interfaces, 2022, 14, 3143-3155. | 4.0 | 4 |
| 85 | A Lithium-Ion Battery Cathode with Enhanced Wettability toward an Electrolyte Fabricated by a Fast Light Curing of Photoactive Slurry. Energy & Fuels, 2022, 36, 3313-3318. | 2.5 | 4 |
| 86 | Effect of Sol-Gel Reaction Time on the Morphology Transition in Mesoporous Titania/PS- <i>b</i> -PEO Composite Films. Science of Advanced Materials, 2015, 7, 924-933. | 0.1 | 3 |
| 87 | <i>In Situ</i> Synthesis and Dual Functionalization of Nano Silicon Enabled by a Semisolid Lithium Rechargeable Flow Battery. ACS Applied Materials & Interfaces, 2022, 14, 28748-28759. | 4.0 | 3 |
| 88 | Usefulness of uselessness: Teamwork of wide temperature electrolyte enables LFP/Li cells from -40 °C to 140 °C. Electrochimica Acta, 2022, 425, 140698. | 2.6 | 3 |
| 89 | Epoxy Resin Enables Facile Scalable Synthesis of CuO/C Nanohybrid Lithium-Ion Battery Anode with Enhanced Electrochemical Performance. ChemistrySelect, 2020, 5, 5479-5487. | 0.7 | 2 |
| 90 | Ultrafine SnO ₂ /Sn Nanoparticles Embedded into an <i>In Situ</i> Generated Meso-/Macroporous Carbon Matrix with a Tunable Pore Size. Langmuir, 2022, 38, 1689-1697. | 1.6 | 2 |

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| 91 | Emcoating Architecture Construction via CO ₂ /H ₂ Coupling Treatment Doubles Reversible Capacity of NbO ₂ /C Anode. ChemSusChem, 2022, 15, . | 3.6 | 2 |
| 92 | Enhanced rate performance of lithium-ion battery anodes using a cobalt-incorporated carbon conductive agent. Inorganic Chemistry Frontiers, 2022, 9, 3484-3493. | 3.0 | 2 |
| 93 | Highly selective electrodeposition of sub-10 nm crystalline noble metallic nanorods inside vertically aligned multiwall carbon nanotubes. Nanotechnology, 2016, 27, 275604. | 1.3 | 1 |
| 94 | Continuous fast pyrolysis synthesis of TiO ₂ /C nanohybrid lithium-ion battery anode. Nano Select, 2021, 2, 1770-1778. | 1.9 | 1 |
| 95 | Si/SiOC/Carbon Lithium-ion Battery Negative Electrode with Multiple Buffer Media Derived from Cross-Linked Dimethacrylate and Poly (dimethyl siloxane). ChemistrySelect, 2021, 6, 10348-10354. | 0.7 | 1 |
| 96 | Next-Generation Energy Storage Materials Explored by Advanced Scanning Techniques. Scanning, 2018, 2018, 1-3. | 0.7 | 0 |
| 97 | Titania Thin Films: Key Factors for Template-Oriented Porous Titania Synthesis: Solvents and Catalysts (Small Methods 3/2020). Small Methods, 2020, 4, 2070012. | 4.6 | 0 |
| 98 | Porous silicon derived from 130Ånm Stober silica as lithium-ion battery anode. Nano Select, 2021, 2, 1554-1565. | 1.9 | 0 |
| 99 | Super-Small TiO ₂ Nanoparticles Homogeneously Embedded in Mesoporous Carbon Matrix Based on Dental Methacrylates and KOH Activation. ChemistrySelect, 2021, 6, 1508-1518. | 0.7 | 0 |