Ya-Jun Cheng

List of Publications by Year
in descending order

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Version: 2024-02-01

99 papers	4,163 citations	159585 30 h-index	118850 62 g-index
104 all docs	104 docs citations	104 times ranked	5599 citing authors

#	Article	IF	Citations
1	Silicon based lithium-ion battery anodes: A chronicle perspective review. Nano Energy, 2017, 31, 113-143.	16.0	1,122
2	A Chronicle Review of Nonsilicon (Sn, Sb, Ge)â€Based Lithium/Sodiumâ€Ion Battery Alloying Anodes. Small Methods, 2020, 4, 2000218.	8.6	220
3	Super-tough double-network hydrogels reinforced by covalently compositing with silica-nanoparticles. Soft Matter, 2012, 8, 6048.	2.7	197
4	Super Tough, Ultrastretchable, and Thermoresponsive Hydrogels with Functionalized Triblock Copolymer Micelles as Macro-Cross-Linkers. ACS Macro Letters, 2014, 3, 496-500.	4.8	176
5	Morphology Phase Diagram of Ultrathin Anatase TiO2Films Templated by a Single PS-b-PEO Block Copolymer. Journal of the American Chemical Society, 2006, 128, 4658-4674.	13.7	166
6	On the Adhesion between Fine Particles and Nanocontacts:Â An Atomic Force Microscope Study. Langmuir, 2006, 22, 2171-2184.	3.5	156
7	Self-Templating Construction of 3D Hierarchical Macro-/Mesoporous Silicon from 0D Silica Nanoparticles. ACS Nano, 2017, 11, 889-899.	14.6	100
8	In situ formation of silver nanoparticles in photocrosslinking polymers. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 97B, 124-131.	3.4	93
9	Magnetic nanohydroxyapatite/PVA composite hydrogels for promoted osteoblast adhesion and proliferation. Colloids and Surfaces B: Biointerfaces, 2013, 103, 318-325.	5.0	93
10	Fabrication and characterization of nanostructured titania films with integrated function from inorganicâ€“organic hybrid materials. Chemical Society Reviews, 2012, 41, 5131.	38.1	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.	5.8	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.	7.8	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.	6.7	68
14	Si/Ag/C Nanohybrids with in Situ Incorporation of Super-Small Silver Nanoparticles: Tiny Amount, Huge Impact. ACS Nano, 2018, 12, 861-875.	14.6	67
15	Cocktail therapy towards high temperature/high voltage lithium metal battery via solvation sheath structure tuning. Energy Storage Materials, 2021, 38, 599-608.	18.0	53
16	Bronzeâ€Phase TiO₂ as Anode Materials in Lithium and Sodiumâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	14.9	53
17	Nanowear on Polymer Films of Different Architecture. Langmuir, 2007, 23, 3150-3156.	3.5	51
18	Scalable in Situ Synthesis of Li₄Ti₅O₁₂/Carbon Nanohybrid with Supersmall Li₄Ti₅O₁₂Nanoparticles Homogeneously Embedded in Carbon Matrix. ACS Applied Materials & Interfaces, 2018, 10, 2591-2602.	8.0	47

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19	Anatase titanium dioxide as rechargeable ion battery electrode - A chronological review. Energy Storage Materials, 2022, 45, 201-264.	18.0	45
20	Silicon lithium-ion battery anode with enhanced performance: Multiple effects of silver nanoparticles. Journal of Materials Science and Technology, 2018, 34, 1902-1911.	10.7	44
21	Ultrathin Anatase TiO2 Films with Stable Vesicle Morphology Templated by PMMA-b-PEO. Small, 2007, 3, 1379-1382.	10.0	42
22	Rational design of 3D N-doped carbon nanosheet framework encapsulated ultrafine ZnO nanocrystals as superior performance anode materials in lithium ion batteries. Journal of Materials Chemistry A, 2019, 7, 25155-25164.	10.3	42
23	From â˜'20 Â°C to 150 Â°C: a lithium secondary battery with a wide temperature window obtained via manipulated competitive decomposition in electrolyte solution. Journal of Materials Chemistry A, 2021, 9, 9307-9318.	10.3	40
24	Effects of filler type and content on mechanical properties of photopolymerizable composites measured across two-dimensional combinatorial arrays. Acta Biomaterialia, 2009, 5, 2084-2094.	8.3	39
25	Green Facile Scalable Synthesis of Titania/Carbon Nanocomposites: New Use of Old Dental Resins. ACS Applied Materials & Interfaces, 2014, 6, 18461-18468.	8.0	38
26	Natural polyphenol-stabilised highly crosslinked UHMWPE with high mechanical properties and low wear for joint implants. Journal of Materials Chemistry B, 2013, 1, 4727.	5.8	36
27	Facile Scalable Synthesis of TiO₂/Carbon Nanohybrids with Ultrasmall TiO₂ Nanoparticles Homogeneously Embedded in Carbon Matrix. ACS Applied Materials & Interfaces, 2015, 7, 24247-24255.	8.0	36
28	Silicon Oxycarbide/Carbon Nanohybrids with Tiny Silicon Oxycarbide Particles Embedded in Free Carbon Matrix Based on Photoactive Dental Methacrylates. ACS Applied Materials & Interfaces, 2016, 8, 13982-13992.	8.0	36
29	Surface-Supported, Highly Ordered Macroporous Crystalline TiO₂ Thin Films Robust up to 1000 Â°C. Chemistry of Materials, 2008, 20, 6580-6582.	6.7	35
30	Fabrication of hollow porous PLGA microspheres for controlled protein release and promotion of cell compatibility. Chinese Chemical Letters, 2013, 24, 710-714.	9.0	31
31	Direct Regeneration of Spent Lithium Iron Phosphate via a Low-Temperature Molten Salt Process Coupled with a Reductive Environment. Industrial & Engineering Chemistry Research, 2022, 61, 3831-3839.	3.7	31
32	Morphology Transition in Ultrathin Titania Films: From Pores to Lamellae. Macromolecular Rapid Communications, 2007, 28, 1392-1396.	3.9	30
33	A fast and efficient method for selective extraction of lithium from spent lithium iron phosphate battery. Environmental Technology and Innovation, 2021, 23, 101569.	6.1	29
34	Nanostructured TiO₂ Films Templated by Amphiphilic Dendritic Coreâ€"Doubleâ€Shell Macromolecules: From Isolated Nanorings to Continuous 2D Mesoporous Networks. Angewandte Chemie - International Edition, 2008, 47, 8400-8403.	13.8	28
35	Surface functionalized barium sulfate nanoparticles: controlled in situ synthesis and application in bone cement. Journal of Materials Chemistry B, 2014, 2, 1264-1274.	5.8	28
36	Dental Resin Monomer Enables Unique NbO₂/Carbon Lithiumâ€Ion Battery Negative Electrode with Exceptional Performance. Advanced Functional Materials, 2019, 29, 1904961.	14.9	26

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37	Modification of the Morphology of P(S-b-EO) Templated Thin TiO2 Films by Swelling with PS Homopolymer. Langmuir, 2007, 23, 10299-10306.	3.5	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. ACS Applied Materials & Interfaces, 2020, 12, 43785-43797.	8.0	24
39	Stable Electrode/Electrolyte Interface for High-Voltage NCM 523 Cathode Constructed by Synergistic Positive and Passive Approaches. ACS Applied Materials & Interfaces, 2021, 13, 57107-57117.	8.0	23
40	Stabilization of highly crosslinked ultra high molecular weight polyethylene with natural polyphenols. Polymer Degradation and Stability, 2014, 105, 197-205.	5.8	22
41	Microporous Binder for the Silicon-Based Lithium-Ion Battery Anode with Exceptional Rate Capability and Improved Cyclic Performance. Langmuir, 2020, 36, 2003-2011.	3.5	22
42	CO₂ treatment enables non-hazardous, reliable, and efficacious recovery of spent Li(Ni_{0.5}Co_{0.2}Mn_{0.3})O₂ cathodes. Green Chemistry, 2022, 24, 779-789.	9.0	22
43	The first supramolecular architectures assembled by infinite hydrogen-bonded, protonated nucleobaseâ€“water ribbons and unusual polyiodide frameworks. CrystEngComm, 2001, 3, 237-242.	2.6	21
44	Investigation of micromechanical cantilever sensors with microfocus grazing incidence small-angle x-ray scattering. Applied Physics Letters, 2006, 89, 054101.	3.3	20
45	Vacuumâ€Free, Allâ€Solution, and Allâ€Air Processed Organic Photovoltaics with over 11% Efficiency and Promoted Stability Using Layerâ€byâ€Layer Codoped Polymeric Electrodes. Solar Rrl, 2020, 4, 1900543.	5.8	19
46	Mesoporous GeO_x/Ge/C as a Highly Reversible Anode Material with High Specific Capacity for Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2020, 12, 47002-47009.	8.0	18
47	Synergistic effects from super-small sized TiO2 and SiOx nanoparticles within TiO2/SiOx/carbon nanohybrid lithium-ion battery anode. Ceramics International, 2019, 45, 14327-14337.	4.8	17
48	Poly(siloxane imide) Binder for Siliconâ€Based Lithiumâ€Ion Battery Anodes via Rigidness/Softness Coupling. Chemistry - an Asian Journal, 2020, 15, 2674-2680.	3.3	17
49	Sulfur is a New High-Performance Additive toward High-Voltage LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ Cathode: Tiny Amount, Huge Impact. ACS Applied Materials & Interfaces, 2021, 13, 18648-18657.	8.0	17
50	Novel sheet-like supramolecular architectures constructed from infinite hydrogen-bonded, protonated adenineâ€“waterâ€“halide and polyiodide ribbons. New Journal of Chemistry, 2002, 26, 1360-1364.	2.8	15
51	Scalable Synthesis of Hierarchical Antimony/Carbon Micro-/Nanohybrid Lithium/Sodium-Ion Battery Anodes Based on Dimethacrylate Monomer. Acta Metallurgica Sinica (English Letters), 2018, 31, 910-922.	2.9	15
52	Distinctive Formation of Bifunctional ZnCoS-rGO 3D Hollow Microsphere Flowers with Excellent Energy Storage Performances. Chemistry of Materials, 2022, 34, 5896-5911.	6.7	15
53	MnO/Metal/Carbon Nanohybrid Lithiumâ€Ion Battery Anode With Enhanced Electrochemical Performance: Universal Facile Scalable Synthesis and Fundamental Understanding. Advanced Materials Interfaces, 2019, 6, 1900335.	3.7	14
54	Key Factors for Templateâ€Oriented Porous Titania Synthesis: Solvents and Catalysts. Small Methods, 2020, 4, 1900689.	8.6	14

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55	Role of Nickel Nanoparticles in Highâ€Performance TiO₂/Ni/Carbon Nanohybrid Lithium/Sodiumâ€ion Battery Anodes. Chemistry - an Asian Journal, 2019, 14, 1557-1569.	3.3	13
56	Protective and ion conductive: High-Rate Ni-Rich cathode with enhanced cyclic stability via One-Step bifunctional dual-layer coating. Chemical Engineering Journal, 2022, 431, 134031.	12.7	13
57	Morphology Evolution in Mesoporous Titania Block Copolymer Composite Films with Increasing Sol-Gel Reaction Time. European Journal of Inorganic Chemistry, 2013, 2013, 1127-1133.	2.0	12
58	Controlled In Situ Nanocavitation in Polymeric Materials. Advanced Materials, 2011, 23, 409-413.	21.0	11
59	Controlled in situ synthesis of surface functionalized BaSO4 nanoparticles for improved bone cement reinforcement. Journal of Materials Chemistry B, 2013, 1, 4043.	5.8	11
60	Template-Induced Growth of Sputter-Deposited Gold Nanoparticles on Ordered Porous TiO₂ Thin Films for Surface-Enhanced Raman Scattering Sensors. ACS Applied Nano Materials, 2022, 5, 7492-7501.	5.0	11
61	SnO₂/Sn/Carbon nanohybrid lithiumâ€ion battery anode with high reversible capacity and excellent cyclic stability. Nano Select, 2021, 2, 642-653.	3.7	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. ACS Applied Materials & Interfaces, 2022, 14, 16245-16257.	8.0	10
63	Effects of Sample Preparation on Bacterial Colonization of Polymers. Langmuir, 2010, 26, 2659-2664.	3.5	9
64	A Facile Route to Reassemble Titania Nanoparticles Into Ordered Chainâ€like Networks on Substrate. Macromolecular Rapid Communications, 2012, 33, 218-224.	3.9	9
65	Impact of CO₂ activation on the structure, composition, and performance of Sb/C nanohybrid lithium/sodium-ion battery anodes. Nanoscale Advances, 2021, 3, 1942-1953.	4.6	9
66	Direct Recycling of Spent LiNi_{0.5}Co_{0.2}Mn_{0.3}O₂ Cathodes Based on Single Oxalic Acid Leaching and Regeneration under Mild Conditions Assisted by Lithium Acetate. Energy & Fuels, 2022, 36, 6552-6559.	5.1	9
67	Generalized Synthesis of Mesoporous Rare Earth Oxide Thin Films through Amphiphilic Ionic Block Copolymer Templating. European Journal of Inorganic Chemistry, 2013, 2013, 1251-1257.	2.0	8
68	Template-free synthesis of titania architectures with controlled morphology evolution. Journal of Materials Science, 2016, 51, 3941-3956.	3.7	8
69	Exciton diffusion controlled quantum efficiency in hybrid dye sensitized solar cells. Physical Chemistry Chemical Physics, 2009, 11, 1604.	2.8	7
70	Solvothermal synthesis of hierarchical Eu₂O₃ nanostructures templated by PS-b-PMAA: morphology control via simple variation of water contents. Journal of Materials Chemistry A, 2015, 3, 5789-5793.	10.3	7
71	Carbon-emcoating architecture boosts lithium storage of Nb2O5. Science China Materials, 2021, 64, 1071-1086.	6.3	7
72	Multidimensional Morphology Control for PSâ€bâ€P₄VP Templated Mesoporous Iron (III) Oxide Thin Films. Advanced Materials Interfaces, 2021, 8, 2100141.	3.7	6

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73	Integrated Spinâ€on 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.	2.0	5
75	Porous titania/carbon hybrid microspheres templated by in situ formed polystyrene colloids. Journal of Colloid and Interface Science, 2016, 469, 242-256.	9.4	5
76	Mutual Performance Enhancement within Dual Nâ€doped TiO 2 /Si/C Nanohybrid Lithiumâ€Ion Battery Anode. ChemistrySelect, 2021, 6, 141-153.	1.5	5
77	Si/Cu/C Nanohybrid Lithium-Ion Battery Anode with in Situ Incorporation of Nonagglomerated Super-Small Copper Nanoparticles Based on Epoxy Resin. Energy & Fuels, 2021, 35, 6250-6264.	5.1	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.	10.3	5
79	Fabrication of Metal-Block-Copolymer Composite Films by a Palladium-Catalyzed Electroless Nickel-Plating Process. Macromolecular Rapid Communications, 2005, 26, 613-619.	3.9	4
80	Spatial Effects between Two 3D Selfâ€Supported Carbonâ€Nanotubeâ€Based Skeleton as Binderâ€Free Cathodes for Lithiumâ€Sulfur Batteries. ChemistrySelect, 2020, 5, 11383-11390.	1.5	4
81	In Situ Incorporation of Superâ€Small Metallic High Capacity Nanoparticles and Mesoporous Structures for Highâ€Performance TiO₂/SnO₂/Sn/Carbon Nanohybrid Lithiumâ€Ion Battery Anodes. Energy Technology, 2020, 8, 2000034.	3.8	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.	8.0	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.	5.1	4
84	In Situ GISAXS Observation and Large Area Homogeneity Study of Slot-Die Printed PS-b-P4VP and PS-b-P4VP/FeCl₃ Thin Films. ACS Applied Materials & Interfaces, 2022, 14, 3143-3155.	8.0	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.	5.1	4
86	Effect of Solâ€“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.	0.7	3
87	In Situ Synthesis and Dual Functionalization of Nano Silicon Enabled by a Semisolid Lithium Rechargeable Flow Battery. ACS Applied Materials & Interfaces, 2022, 14, 28748-28759.	8.0	3
88	Usefulness of uselessness: Teamwork of wide temperature electrolyte enables LFP/Li cells from -40 Â°C to 140 Â°C. Electrochimica Acta, 2022, 425, 140698.	5.2	3
89	Epoxy Resin Enables Facile Scalable Synthesis of CuO/C Nanohybrid Lithiumâ€Ion Battery Anode with Enhanced Electrochemical Performance. ChemistrySelect, 2020, 5, 5479-5487.	1.5	2
90	Ultrafine SnO₂/Sn Nanoparticles Embedded into an In Situ Generated Meso-/Macroporous Carbon Matrix with a Tunable Pore Size. Langmuir, 2022, 38, 1689-1697.	3.5	2

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91	Emcoating Architecture Construction via CO₂/H₂ Coupling Treatment Doubles Reversible Capacity of NbO₂/C Anode. ChemSusChem, 2022, 15, .	6.8	2
92	Enhanced rate performance of lithium-ion battery anodes using a cobalt-incorporated carbon conductive agent. Inorganic Chemistry Frontiers, 2022, 9, 3484-3493.	6.0	2
93	Highly selective electrodeposition of sub-10 nm crystalline noble metallic nanorods inside vertically aligned multiwall carbon nanotubes. Nanotechnology, 2016, 27, 275604.	2.6	1
94	Continuous fast pyrolysis synthesis of TiO₂/C nanohybrid lithiumâ€ion battery anode. Nano Select, 2021, 2, 1770-1778.	3.7	1
95	Si/SiOC/Carbon Lithiumâ€ion Battery Negative Electrode with Multiple Buffer Media Derived from Crossâ€Linked Dimethacrylate and Poly (dimethyl siloxane). ChemistrySelect, 2021, 6, 10348-10354.	1.5	1
96	Next-Generation Energy Storage Materials Explored by Advanced Scanning Techniques. Scanning, 2018, 2018, 1-3.	1.5	0
97	Titania Thin Films: Key Factors for Templateâ€Oriented Porous Titania Synthesis: Solvents and Catalysts (Small Methods 3/2020). Small Methods, 2020, 4, 2070012.	8.6	0
98	Porous silicon derived from 130Ânm StÃ¶ber silica as lithiumâ€ion battery anode. Nano Select, 2021, 2, 1554-1565.	3.7	0
99	Superâ€Small TiO 2 Nanoparticles Homogeneously Embedded in Mesoporous Carbon Matrix Based on Dental Methacrylates and KOH Activation. ChemistrySelect, 2021, 6, 1508-1518.	1.5	0