Ya-Jun Cheng

List of Publications by Year
in descending order

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Version: 2024-02-01

99 papers	4,163 citations	159358 30 h-index	118652 62 g-index
104 all docs	104 docs citations	104 times ranked	5599 citing authors

#	Article	IF	Citations
1	Anatase titanium dioxide as rechargeable ion battery electrode - A chronological review. Energy Storage Materials, 2022, 45, 201-264.	9.5	45
2	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.	4.0	4
3	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.	6.6	13
4	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.	4.6	22
5	Ultrafine SnO₂/Sn Nanoparticles Embedded into an In Situ Generated Meso-/Macroporous Carbon Matrix with a Tunable Pore Size. Langmuir, 2022, 38, 1689-1697.	1.6	2
6	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
7	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
8	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.	4.0	10
9	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.	1.8	31
10	Emcoating Architecture Construction via CO₂/H₂ Coupling Treatment Doubles Reversible Capacity of NbO₂/C Anode. ChemSusChem, 2022, 15, .	3.6	2
11	Bronzeâ€Phase TiO₂ as Anode Materials in Lithium and Sodiumâ€Ion Batteries. Advanced Functional Materials, 2022, 32, .	7.8	53
12	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.	2.4	11
13	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
14	Distinctive Formation of Bifunctional ZnCoS-rGO 3D Hollow Microsphere Flowers with Excellent Energy Storage Performances. Chemistry of Materials, 2022, 34, 5896-5911.	3.2	15
15	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.	2.5	9
16	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.	4.0	3
17	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.	2.6	3
18	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.	2.2	9

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19	SnO₂/Sn/Carbon nanohybrid lithiumâ€ion battery anode with high reversible capacity and excellent cyclic stability. Nano Select, 2021, 2, 642-653.	1.9	10
20	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.	5.2	40
21	Mutual Performance Enhancement within Dual Nâ€doped TiO 2 /Si/C Nanohybrid Lithiumâ€ion Battery Anode. ChemistrySelect, 2021, 6, 141-153.	0.7	5
22	Porous silicon derived from 130Ânm StÃ¶ber silica as lithiumâ€ion battery anode. Nano Select, 2021, 2, 1554-1565.	1.9	0
23	Superâ€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
24	Continuous fast pyrolysis synthesis of TiO₂/C nanohybrid lithiumâ€ion battery anode. Nano Select, 2021, 2, 1770-1778.	1.9	1
25	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.	2.5	5
26	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
27	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.	4.0	17
28	Multidimensional Morphology Control for PSâ€bâ€P₄VP Templated Mesoporous Iron (III) Oxide Thin Films. Advanced Materials Interfaces, 2021, 8, 2100141.	1.9	6
29	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
30	A fast and efficient method for selective extraction of lithium from spent lithium iron phosphate battery. Environmental Technology and Innovation, 2021, 23, 101569.	3.0	29
31	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.	0.7	1
32	Carbon-emcoating architecture boosts lithium storage of Nb2O5. Science China Materials, 2021, 64, 1071-1086.	3.5	7
33	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
34	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.	4.0	23
35	Spatial Effects between Two 3D Selfâ€Supported Carbonâ€Nanotubeâ€Based Skeleton as Binderâ€Free Cathodes for Lithiumâ€Sulfur Batteries. ChemistrySelect, 2020, 5, 11383-11390.	0.7	4
36	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.	4.0	18

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37	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.	4.0	24
38	Epoxy Resin Enables Facile Scalable Synthesis of CuO/C Nanohybrid Lithiumâ€Ion Battery Anode with Enhanced Electrochemical Performance. ChemistrySelect, 2020, 5, 5479-5487.	0.7	2
39	A Chronicle Review of Nonsilicon (Sn, Sb, Ge)â€Based Lithium/Sodiumâ€Ion Battery Alloying Anodes. Small Methods, 2020, 4, 2000218.	4.6	220
40	Titania Thin Films: Key Factors for Templateâ€Oriented Porous Titania Synthesis: Solvents and Catalysts (Small Methods 3/2020). Small Methods, 2020, 4, 2070012.	4.6	0
41	Poly(siloxane imide) Binder for Siliconâ€Based Lithiumâ€Ion Battery Anodes via Rigidness/Softness Coupling. Chemistry - an Asian Journal, 2020, 15, 2674-2680.	1.7	17
42	Key Factors for Templateâ€Oriented Porous Titania Synthesis: Solvents and Catalysts. Small Methods, 2020, 4, 1900689.	4.6	14
43	Microporous Binder for the Silicon-Based Lithium-Ion Battery Anode with Exceptional Rate Capability and Improved Cyclic Performance. Langmuir, 2020, 36, 2003-2011.	1.6	22
44	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.	3.1	19
45	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.	1.8	4
46	Dental Resin Monomer Enables Unique NbO₂/Carbon Lithiumâ€Ion Battery Negative Electrode with Exceptional Performance. Advanced Functional Materials, 2019, 29, 1904961.	7.8	26
47	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.	1.9	14
48	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.	2.3	17
49	Role of Nickel Nanoparticles in Highâ€Performance TiO₂/Ni/Carbon Nanohybrid Lithium/Sodiumâ€Ion Battery Anodes. Chemistry - an Asian Journal, 2019, 14, 1557-1569.	1.7	13
50	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.	5.2	42
51	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
52	Silicon lithium-ion battery anode with enhanced performance: Multiple effects of silver nanoparticles. Journal of Materials Science and Technology, 2018, 34, 1902-1911.	5.6	44
53	Scalable in Situ Synthesis of Li₄Ti₅O₁₂/Carbon Nanohybrid with Supersmall Li₄Ti₅O₁₂Nanoparticles Homogeneously Embedded in Carbon Matrix. ACS Applied Materials & Interfaces, 2018, 10, 2591-2602.	4.0	47
54	Si/Ag/C Nanohybrids with in Situ Incorporation of Super-Small Silver Nanoparticles: Tiny Amount, Huge Impact. ACS Nano, 2018, 12, 861-875.	7.3	67

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55	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.	1.5	15
56	Next-Generation Energy Storage Materials Explored by Advanced Scanning Techniques. Scanning, 2018, 2018, 1-3.	0.7	0
57	Self-Templating Construction of 3D Hierarchical Macro-/Mesoporous Silicon from 0D Silica Nanoparticles. ACS Nano, 2017, 11, 889-899.	7.3	100
58	Silicon based lithium-ion battery anodes: A chronicle perspective review. Nano Energy, 2017, 31, 113-143.	8.2	1,122
59	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.	4.0	36
60	Highly selective electrodeposition of sub-10 nm crystalline noble metallic nanorods inside vertically aligned multiwall carbon nanotubes. Nanotechnology, 2016, 27, 275604.	1.3	1
61	Template-free synthesis of titania architectures with controlled morphology evolution. Journal of Materials Science, 2016, 51, 3941-3956.	1.7	8
62	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
63	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.	5.2	7
64	Facile Scalable Synthesis of TiO₂/Carbon Nanohybrids with Ultrasmall TiO₂ Nanoparticles Homogeneously Embedded in Carbon Matrix. ACS Applied Materials & Interfaces, 2015, 7, 24247-24255.	4.0	36
65	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.	0.1	3
66	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
67	Green Facile Scalable Synthesis of Titania/Carbon Nanocomposites: New Use of Old Dental Resins. ACS Applied Materials & Interfaces, 2014, 6, 18461-18468.	4.0	38
68	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
69	Surface functionalized barium sulfate nanoparticles: controlled in situ synthesis and application in bone cement. Journal of Materials Chemistry B, 2014, 2, 1264-1274.	2.9	28
70	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
71	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
72	Stabilization of highly crosslinked ultra high molecular weight polyethylene with natural polyphenols. Polymer Degradation and Stability, 2014, 105, 197-205.	2.7	22

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73	Fabrication of hollow porous PLGA microspheres for controlled protein release and promotion of cell compatibility. Chinese Chemical Letters, 2013, 24, 710-714.	4.8	31
74	Magnetic nanohydroxyapatite/PVA composite hydrogels for promoted osteoblast adhesion and proliferation. Colloids and Surfaces B: Biointerfaces, 2013, 103, 318-325.	2.5	93
75	Generalized Synthesis of Mesoporous Rare Earth Oxide Thin Films through Amphiphilic Ionic Block Copolymer Templating. European Journal of Inorganic Chemistry, 2013, 2013, 1251-1257.	1.0	8
76	Controlled in situ synthesis of surface functionalized BaSO4 nanoparticles for improved bone cement reinforcement. Journal of Materials Chemistry B, 2013, 1, 4043.	2.9	11
77	Natural polyphenol-stabilised highly crosslinked UHMWPE with high mechanical properties and low wear for joint implants. Journal of Materials Chemistry B, 2013, 1, 4727.	2.9	36
78	Morphology Evolution in Mesoporous Titania Block Copolymer Composite Films with Increasing Sol-Gel Reaction Time. European Journal of Inorganic Chemistry, 2013, 2013, 1127-1133.	1.0	12
79	Fabrication and characterization of nanostructured titania films with integrated function from inorganicâ€“organic hybrid materials. Chemical Society Reviews, 2012, 41, 5131.	18.7	90
80	Super-tough double-network hydrogels reinforced by covalently compositing with silica-nanoparticles. Soft Matter, 2012, 8, 6048.	1.2	197
81	A Facile Route to Reassemble Titania Nanoparticles Into Ordered Chainâ€like Networks on Substrate. Macromolecular Rapid Communications, 2012, 33, 218-224.	2.0	9
82	Controlled In Situ Nanocavitation in Polymeric Materials. Advanced Materials, 2011, 23, 409-413.	11.1	11
83	In situ formation of silver nanoparticles in photocrosslinking polymers. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2011, 97B, 124-131.	1.6	93
84	Effects of Sample Preparation on Bacterial Colonization of Polymers. Langmuir, 2010, 26, 2659-2664.	1.6	9
85	Effects of filler type and content on mechanical properties of photopolymerizable composites measured across two-dimensional combinatorial arrays. Acta Biomaterialia, 2009, 5, 2084-2094.	4.1	39
86	Exciton diffusion controlled quantum efficiency in hybrid dye sensitized solar cells. Physical Chemistry Chemical Physics, 2009, 11, 1604.	1.3	7
87	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.	7.2	28
88	Surface-Supported, Highly Ordered Macroporous Crystalline TiO₂ Thin Films Robust up to 1000 Â°C. Chemistry of Materials, 2008, 20, 6580-6582.	3.2	35
89	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
90	Modification of the Morphology of P(S-b-EO) Templated Thin TiO2 Films by Swelling with PS Homopolymer. Langmuir, 2007, 23, 10299-10306.	1.6	24

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91	Nanowear on Polymer Films of Different Architecture. Langmuir, 2007, 23, 3150-3156.	1.6	51
92	Morphology Transition in Ultrathin Titania Films: From Pores to Lamellae. Macromolecular Rapid Communications, 2007, 28, 1392-1396.	2.0	30
93	Ultrathin Anatase TiO2 Films with Stable Vesicle Morphology Templated by PMMA-b-PEO. Small, 2007, 3, 1379-1382.	5.2	42
94	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.	6.6	166
95	On the Adhesion between Fine Particles and Nanocontacts:Â An Atomic Force Microscope Study. Langmuir, 2006, 22, 2171-2184.	1.6	156
96	Investigation of micromechanical cantilever sensors with microfocus grazing incidence small-angle x-ray scattering. Applied Physics Letters, 2006, 89, 054101.	1.5	20
97	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
98	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.	1.4	15
99	The first supramolecular architectures assembled by infinite hydrogen-bonded, protonated nucleobaseâ€“water ribbons and unusual polyiodide frameworks. CrystEngComm, 2001, 3, 237-242.	1.3	21