Xianfu Wang

List of Publications by Year
in descending order

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102	11,590	31976 53	28297 105
papers	citations	h-index	g-index

105	105	105	13748
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Flexible Energyâ€Storage Devices: Design Consideration and Recent Progress. Advanced Materials, 2014, 26, 4763-4782.	21.0	1,153
2	Hierarchical Three-Dimensional ZnCo₂O₄ Nanowire Arrays/Carbon Cloth Anodes for a Novel Class of High-Performance Flexible Lithium-Ion Batteries. Nano Letters, 2012, 12, 3005-3011.	9.1	967
3	Fiberâ€Based Flexible Allâ€Solidâ€State Asymmetric Supercapacitors for Integrated Photodetecting System. Angewandte Chemie - International Edition, 2014, 53, 1849-1853.	13.8	387
4	An artificial hybrid interphase for an ultrahigh-rate and practical lithium metal anode. Energy and Environmental Science, 2021, 14, 4115-4124.	30.8	376
5	New Energy Storage Option: Toward ZnCo₂O₄ Nanorods/Nickel Foam Architectures for High-Performance Supercapacitors. ACS Applied Materials & Interfaces, 2013, 5, 10011-10017.	8.0	362
6	NiCo2O4 nanowire arrays supported on Ni foam for high-performance flexible all-solid-state supercapacitors. Journal of Materials Chemistry A, 2013, 1, 2468.	10.3	344
7	Morphology evolution of urchin-like NiCo2O4 nanostructures and their applications as psuedocapacitors and photoelectrochemical cells. Journal of Materials Chemistry, 2012, 22, 21647.	6.7	310
8	Adsorptionâ€Catalysis Design in the Lithiumâ€Sulfur Battery. Advanced Energy Materials, 2020, 10, 1903008.	19.5	275
9	Strategies toward Highâ€Loading Lithiumâ€“Sulfur Battery. Advanced Energy Materials, 2020, 10, 2000082.	19.5	272
10	Intercalation pseudo-capacitive TiNb2O7@carbon electrode for high-performance lithium ion hybrid electrochemical supercapacitors with ultrahigh energy density. Nano Energy, 2015, 15, 104-115.	16.0	263
11	Identification of Key Reversible Intermediates in Selfâ€Reconstructed Nickelâ€Based Hybrid Electrocatalysts for Oxygen Evolution. Angewandte Chemie - International Edition, 2019, 58, 17458-17464.	13.8	255
12	Flexible coaxial-type fiber supercapacitor based on NiCo2O4 nanosheets electrodes. Nano Energy, 2014, 8, 44-51.	16.0	248
13	Rechargeable Mg-Ion Batteries Based on WSe₂ Nanowire Cathodes. ACS Nano, 2013, 7, 8051-8058.	14.6	244
14	Threeâ€Dimensional Hierarchical GeSe₂ Nanostructures for High Performance Flexible Allâ€Solidâ€State Supercapacitors. Advanced Materials, 2013, 25, 1479-1486.	21.0	236
15	Bimetal Schottky Heterojunction Boosting Energyâ€Saving Hydrogen Production from Alkaline Water via Urea Electrocatalysis. Advanced Functional Materials, 2020, 30, 2000556.	14.9	216
16	Highâ€Performance Organicâ€Inorganic Hybrid Photodetectors Based on P3HT:CdSe Nanowire Heterojunctions on Rigid and Flexible Substrates. Advanced Functional Materials, 2013, 23, 1202-1209.	14.9	213
17	High-performance energy-storage devices based on WO3 nanowire arrays/carbon cloth integrated electrodes. Journal of Materials Chemistry A, 2013, 1, 7167.	10.3	203
18	Engineered nanomembranes for smart energy storage devices. Chemical Society Reviews, 2016, 45, 1308-1330.	38.1	167

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19	Coreâ€“Shell CuCo₂O₄@MnO₂ Nanowires on Carbon Fabrics as Highâ€Performance Materials for Flexible, Allâ€Solidâ€State, Electrochemical Capacitors. ChemElectroChem, 2014, 1, 559-564.	3.4	149
20	TiO₂ Feather Duster as Effective Polysulfides Restrictor for Enhanced Electrochemical Kinetics in Lithiumâ€“Sulfur Batteries. Small, 2017, 13, 1701013.	10.0	147
21	Flexible fiber energy storage and integrated devices: recent progress and perspectives. Materials Today, 2015, 18, 265-272.	14.2	146
22	Lithiophilic montmorillonite serves as lithium ion reservoir to facilitate uniform lithium deposition. Nature Communications, 2019, 10, 4973.	12.8	144
23	Gas sensors, thermistor and photodetector based on ZnS nanowires. Journal of Materials Chemistry, 2012, 22, 6845.	6.7	140
24	Electronic Modulation of Electrocatalytically Active Center of Cu₇S₄ Nanodisks by Cobalt-Doping for Highly Efficient Oxygen Evolution Reaction. ACS Nano, 2017, 11, 12230-12239.	14.6	139
25	Hierarchical silicon nanowires-carbon textiles matrix as a binder-free anode for high-performance advanced lithium-ion batteries. Scientific Reports, 2013, 3, 1622.	3.3	136
26	TiO2 modified FeS Nanostructures with Enhanced Electrochemical Performance for Lithium-Ion Batteries. Scientific Reports, 2013, 3, 2007.	3.3	133
27	Flexible, Planarâ€Integrated, Allâ€Solidâ€State Fiber Supercapacitors with an Enhanced Distributedâ€Capacitance Effect. Small, 2013, 9, 1998-2004.	10.0	133
28	Nanorod-assembled Co3O4 hexapods with enhanced electrochemical performance for lithium-ion batteries. Journal of Materials Chemistry, 2012, 22, 23541.	6.7	132
29	Hierarchical MnCo₂O₄nanosheet arrays/carbon cloths as integrated anodes for lithium-ion batteries with improved performance. Nanoscale, 2014, 6, 8858-8864.	5.6	121
30	Redox Chemistry of Molybdenum Trioxide for Ultrafast Hydrogenâ€Ion Storage. Angewandte Chemie - International Edition, 2018, 57, 11569-11573.	13.8	116
31	Heterostructured NiS₂/ZnIn₂S₄ Realizing Toroid-like Li₂O₂ Deposition in Lithiumâ€“Oxygen Batteries with Low-Donor-Number Solvents. ACS Nano, 2020, 14, 3490-3499.	14.6	113
32	Optimizing Redox Reactions in Aprotic Lithiumâ€“Sulfur Batteries. Advanced Energy Materials, 2020, 10, 2002180.	19.5	112
33	Atomic Structure Modification for Electrochemical Nitrogen Reduction to Ammonia. Advanced Energy Materials, 2020, 10, 1903172.	19.5	110
34	Advanced rechargeable lithium-ion batteries based on bendable ZnCo2O4-urchins-on-carbon-fibers electrodes. Nano Research, 2013, 6, 525-534.	10.4	109
35	ZnS Nanostructures: Synthesis, Properties, and Applications. Critical Reviews in Solid State and Materials Sciences, 2013, 38, 57-90.	12.3	104
36	SnO₂@TiO₂ Heterojunction Nanostructures for Lithiumâ€Ion Batteries and Selfâ€Powered UV Photodetectors with Improved Performances. ChemElectroChem, 2014, 1, 108-115.	3.4	104

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37	Ultralong-life and high-rate web-like Li4Ti5O12 anode for high-performance flexible lithium-ion batteries. Nano Research, 2014, 7, 1073-1082.	10.4	100
38	Largeâ€Scale Ultrathin 2D Wideâ€Bandgap BiOBr Nanoflakes for Gateâ€Controlled Deepâ€Ultraviolet Phototransistors. Advanced Materials, 2020, 32, e1908242.	21.0	100
39	Ultrathin In₂O₃ Nanowires with Diameters below 4 nm: Synthesis, Reversible Wettability Switching Behavior, and Transparent Thin-Film Transistor Applications. ACS Nano, 2011, 5, 6148-6155.	14.6	98
40	Growth of Directly Transferable In₂O₃ Nanowire Mats for Transparent Thinâ€film Transistor Applications. Advanced Materials, 2011, 23, 771-775.	21.0	96
41	Zn_2GeO_4 and In_2Ge_2O_7 nanowire mats based ultraviolet photodetectors on rigid and flexible substrates. Optics Express, 2012, 20, 2982.	3.4	96
42	Graphene quantum dots as the nucleation sites and interfacial regulator to suppress lithium dendrites for high-loading lithium-sulfur battery. Nano Energy, 2020, 68, 104373.	16.0	95
43	SnO2-microtube-assembled cloth for fully flexible self-powered photodetector nanosystems. Nanoscale, 2013, 5, 7831.	5.6	91
44	High Edge Selectivity of In Situ Electrochemical Pt Deposition on Edgeâ€Rich Layered WS₂ Nanosheets. Advanced Materials, 2018, 30, 1704779.	21.0	84
45	Sprayâ€Painted Binderâ€Free SnSe Electrodes for Highâ€Performance Energyâ€Storage Devices. ChemSusChem, 2014, 7, 308-313.	6.8	81
46	Singleâ€Crystalline pâ€Type Zn₃As₂ Nanowires for Fieldâ€Effect Transistors and Visibleâ€Light Photodetectors on Rigid and Flexible Substrates. Advanced Functional Materials, 2013, 23, 2681-2690.	14.9	79
47	Fast fabrication of a WO3Â·2H2O thin film with improved electrochromic properties. Journal of Materials Chemistry, 2012, 22, 19904.	6.7	73
48	Recent Advances in 2D Superconductors. Advanced Materials, 2021, 33, e2006124.	21.0	68
49	Constructing optimized wire electrodes for fiber supercapacitors. Nano Energy, 2014, 10, 99-107.	16.0	59
50	Ultrabroadband Photodetectors up to 10.6 Âµm Based on 2D Fe₃O₄ Nanosheets. Advanced Materials, 2020, 32, e2002237.	21.0	57
51	Indium Oxide Nanospirals Made of Kinked Nanowires. ACS Nano, 2011, 5, 2155-2161.	14.6	55
52	In Situ Formed Gradient Bandgapâ€Tunable Perovskite for Ultrahighâ€Speed Color/Spectrumâ€Sensitive Photodetectors via Electronâ€Donor Control. Advanced Materials, 2020, 32, e1908108.	21.0	55
53	Synthesis, characterizations and improved gas-sensing performance of SnO2 nanospike arrays. Journal of Materials Chemistry, 2011, 21, 19086.	6.7	54
54	Single-crystalline metal germanate nanowireâ€“carbon textiles as binder-free, self-supported anodes for high-performance lithium storage. Nanoscale, 2013, 5, 10291.	5.6	53

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55	Threeâ€Dimensional Structural Engineering for Energyâ€Storage Devices: From Microscope to Macroscope. ChemElectroChem, 2014, 1, 975-1002.	3.4	53
56	Flexible TiO2/cellulose acetate hybrid film as a recyclable photocatalyst. RSC Advances, 2014, 4, 12640.	3.6	51
57	Highly Reversible Lithium Storage in Hierarchical Ca₂Ge₇O₁₆ Nanowire Arrays/Carbon Textile Anodes. Chemistry - A European Journal, 2013, 19, 8650-8656.	3.3	50
58	Flexible high-energy asymmetric supercapacitors based on MnO@C composite nanosheet electrodes. Journal of Materials Chemistry A, 2017, 5, 804-813.	10.3	49
59	Metal oxide nanowire transistors. Journal of Materials Chemistry, 2012, 22, 13428.	6.7	45
60	Identification of Key Reversible Intermediates in Selfâ€Reconstructed Nickelâ€Based Hybrid Electrocatalysts for Oxygen Evolution. Angewandte Chemie, 2019, 131, 17619-17625.	2.0	45
61	2D Polarized Materials: Ferromagnetic, Ferrovalley, Ferroelectric Materials, and Related Heterostructures. Advanced Materials, 2021, 33, e2004469.	21.0	45
62	Transparent metal oxide nanowire transistors. Nanoscale, 2012, 4, 3001.	5.6	44
63	Ni/Fe Ratio Dependence of Catalytic Activity in Monodisperse Ternary Nickel Iron Phosphide for Efficient Water Oxidation. ChemElectroChem, 2017, 4, 2150-2157.	3.4	44
64	Inâ€‰Situ/Operando Raman Techniques in Lithiumâ€“Sulfur Batteries. Small Structures, 2022, 3, .	12.0	44
65	Blending Fe 3 O 4 into a Ni/NiO composite for efficient and stable bifunctional electrocatalyst. Electrochimica Acta, 2018, 264, 225-232.	5.2	42
66	SnS2 quantum dots growth on MoS2: Atomic-level heterostructure for electrocatalytic hydrogen evolution. Electrochimica Acta, 2019, 300, 45-52.	5.2	42
67	Electric transport, reversible wettability and chemical sensing of single-crystalline zigzag Zn2SnO4 nanowires. Journal of Materials Chemistry, 2011, 21, 17236.	6.7	39
68	Recent Progress on Molybdenum Oxides for Rechargeable Batteries. ChemSusChem, 2019, 12, 755-771.	6.8	37
69	3D Printed Liâ€“S Batteries with In Situ Decorated Li₂S/C Cathode: Interface Engineering Induced Loadingâ€Insensitivity for Scaled Areal Performance. Advanced Energy Materials, 2021, 11, 2100420.	19.5	37
70	Shape evolution and applications in water purification: the case of CVD-grown Zn2SiO4 straw-bundles. Journal of Materials Chemistry, 2012, 22, 5330.	6.7	33
71	Ferroelectric polarization accelerates lithium-ion diffusion for dendrite-free and highly-practical lithium-metal batteries. Nano Energy, 2021, 79, 105481.	16.0	32
72	Porous SnO2 nanoflowers derived from tin sulfide precursors as high performance gas sensors. CrystEngComm, 2012, 14, 6654.	2.6	31

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73	Highly Stretchable Waterproof Fiber Asymmetric Supercapacitors in an Integrated Structure. ACS Applied Materials & Interfaces, 2018, 10, 19820-19827.	8.0	31
74	Genetic engineering of porous sulfur species with molecular target prevents host passivation in lithium sulfur batteries. Energy Storage Materials, 2020, 26, 65-72.	18.0	31
75	Recordâ€Low Subthresholdâ€Swing Negativeâ€Capacitance 2D Fieldâ€Effect Transistors. Advanced Materials, 2020, 32, e2005353.	21.0	31
76	Aluminumâ€Tailored Energy Level and Morphology of Co_{3â''}_xAl_xO₄ Porous Nanosheets toward Highly Efficient Electrocatalysts for Water Oxidation. Small, 2019, 15, e1804886.	10.0	30
77	Electronic and Photoelectronic Memristors Based on 2D Materials. Advanced Electronic Materials, 2022, 8, 2101099.	5.1	28
78	Lowâ€Energy Oxygen Plasma Injection of 2D Bi₂Se₃ Realizes Highly Controllable Resistive Random Access Memory. Advanced Functional Materials, 2022, 32, 2108455.	14.9	27
79	Memristorâ€Integrated Voltageâ€Stabilizing Supercapacitor System. Advanced Materials, 2014, 26, 4999-5004.	21.0	26
80	Enhanced water oxidation activity of 3D porous carbon by incorporation of heterogeneous Ni/NiO nanoparticles. Applied Surface Science, 2020, 530, 147192.	6.1	24
81	Nitrogen-Doped Carbon Coated WS2 Nanosheets as Anode for High-Performance Sodium-Ion Batteries. Frontiers in Chemistry, 2018, 6, 236.	3.6	22
82	Boronâ€Modified Electron Transfer in Metallic 1T MoSe₂ for Enhanced Inherent Activity on Peâ€Catalytic Site toward Hydrogen Evolution. Advanced Materials Interfaces, 2020, 7, 1901560.	3.7	22
83	Strong intermolecular polarization to boost polysulfide conversion kinetics for high-performance lithiumâ€“sulfur batteries. Journal of Materials Chemistry A, 2021, 9, 9771-9779.	10.3	21
84	Redox Chemistry of Molybdenum Trioxide for Ultrafast Hydrogenâ€Ion Storage. Angewandte Chemie, 2018, 130, 11743-11747.	2.0	20
85	In-situ phase transition induced nanoheterostructure for overall water splitting. Chemical Engineering Journal, 2021, 409, 128156.	12.7	19
86	In-situ tracking of phase conversion reaction induced metal/metal oxides for efficient oxygen evolution. Science China Materials, 2021, 64, 362-373.	6.3	19
87	Interfacial Capillaryâ€Forceâ€Driven Selfâ€Assembly of Monolayer Colloidal Crystals for Supersensitive Plasmonic Sensors. Small, 2020, 16, e1905480.	10.0	17
88	Atom removal on the basal plane of layered MoS2 leading to extraordinarily enhanced electrocatalytic performance. Electrochimica Acta, 2020, 336, 135740.	5.2	16
89	Synergistic performance of nitrogen and sulfur co-doped Ti3C2TX for electrohydrogenation of N2 to NH3. Journal of Alloys and Compounds, 2021, 869, 159335.	5.5	16
90	Coupling enhancement mechanisms, materials, and strategies for surface-enhanced Raman scattering devices. Analyst, The, 2021, 146, 5008-5032.	3.5	15

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91	In situ evolved NiMo/NiMoO₄ nanorods as a bifunctional catalyst for overall water splitting. Nanotechnology, 2020, 31, 495404.	2.6	14
92	Eliminating anion depletion region and promoting Li+ solvation via anionphilic metal organic framework for dendrite-free lithium deposition. Nano Energy, 2022, 92, 106708.	16.0	14
93	Ionâ€Inserted Metalâ€“Organic Frameworks Accelerate the Mass Transfer Kinetics in Lithiumâ€“Sulfur Batteries. Small, 2021, 17, e2104367.	10.0	13
94	On-chip high-energy interdigital micro-supercapacitors with 3D nanotubular array electrodes. Journal of Materials Chemistry A, 2022, 10, 14051-14059.	10.3	13
95	Ni3S2@Ni5P4 nanosheets as highly productive catalyst for electrocatalytic oxygen evolution. Chemical Engineering Science, 2022, 247, 117020.	3.8	12
96	Tin Microspheres Grown on Carbon Cloth as Binderâ€Free Integrated Anode for High Capacity Lithium Storage. Energy Technology, 2014, 2, 370-375.	3.8	10
97	Self-organized hierarchical zinc phosphide nanoribbonâ€“zinc sulfide nanowire heterostructures. CrystEngComm, 2011, 13, 7305.	2.6	7
98	Low Field Gradient and Highly Enhanced Plasmonic Nanocavity Array for Supersensitive Determination of Multiple Hazardous Chemical Residues. Journal of Physical Chemistry C, 2021, 125, 4710-4719.	3.1	6
99	Singleâ€Nanostructured Electrochemical Detection for Intrinsic Mechanism of Energy Storage: Progress and Prospect. Small, 2018, 14, e1803482.	10.0	4
100	Facile and Rapid Synthesis of Porous Hydrated V2O5 Nanoflakes for High-Performance Zinc Ion Battery Applications. Nanomaterials, 2022, 12, 2400.	4.1	4
101	Self-Roll-Up Technology for Micro-Energy Storage Devices. Wuli Huaxue Xuebao/ Acta Physico - Chimica Sinica, 2017, 33, 18-27.	4.9	2
102	Optimised synthesis of close packed ZnO cloth and its applications in Li-ion batteries and dye-sensitized solar cells. Frontiers of Optoelectronics, 2015, 8, 220-228.	3.7	1