

Xiao-Lin Wei

List of Publications by Year in descending order

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76
papers

3,433
citations

147566

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docs citations

77
times ranked

5574
citing authors

#	ARTICLE	IF	CITATIONS
1	Facile approach to prepare Fe ₂ P/C nanofiber heterostructure via electrospinning as highly performance self-supporting anode for Li/Na ion batteries. <i>Electrochimica Acta</i> , 2022, 403, 139682.	2.6	10
2	Water-processable and Multiscale-Designed Vanadium Oxide Cathodes with Predominant Zn ²⁺ Intercalation Pseudocapacitance toward High Gravimetric/Areal/Volumetric Capacity. <i>Small</i> , 2022, 18, e2105796.	5.2	19
3	Understanding the Influence of C-Doping on CO ₂ Photoreduction at SnS ₂ Nanosheets: A First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2022, 126, 1271-1280.	1.5	4
4	Fabrication of MnSe/SnSe@C heterostructures for high-performance Li/Na storage. <i>New Journal of Chemistry</i> , 2022, 46, 5848-5860.	1.4	10
5	Surface Defect Modulation with Intercalation Ion Doping Vanadium Oxide to Enhance Zinc Storage Performance. <i>Energy & Fuels</i> , 2022, 36, 2872-2879.	2.5	2
6	Creating Unidirectional Fast Ion Diffusion Channels in G/NiS ₂ @MoS ₂ Heterostructures for High-Performance Sodium-Ion Batteries. <i>Small</i> , 2022, 18, e2200782.	5.2	24
7	Rational Design of an Interfacial Bilayer for Aqueous Dendrite-Free Zinc Anodes. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 954-960.	4.0	14
8	Intrinsic anion vacancy of Mo ₆ X ₆ (X = S, Se, Te) nanowires as a promising nitrogen fixation catalysis: A first-principles study. <i>Chemical Physics Letters</i> , 2022, 802, 139752.	1.2	0
9	The unique carrier mobility of monolayer Janus MoSSe nanoribbons: a first-principles study. <i>Dalton Transactions</i> , 2021, 50, 10252-10260.	1.6	8
10	Ultrafine Co _{0.85} Se nanocrystals dispersed in 3D CNT network as a flexible free-standing anode for high-performance lithium-ion battery. <i>New Journal of Chemistry</i> , 2021, 45, 12168-12177.	1.4	1
11	Modified Graphene Sheets as Promising Cathode Catalysts for Li-O ₂ Batteries: A First-Principles Study. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4363-4370.	1.5	12
12	Hollow Co ₃ O ₄ @N-doped carbon nanocrystals anchored on carbon nanotubes for freestanding anode with superior Li/Na storage performance. <i>Chemical Engineering Journal</i> , 2021, 415, 128861.	6.6	19
13	Heterostructured multi-yolk-shell SnO ₂ /Mn ₂ SnO ₄ @C nanoboxes for stable and highly efficient Li/Na storage. <i>Journal of Power Sources</i> , 2021, 506, 230243.	4.0	19
14	Stability and electronic properties of $\sqrt{2} \times \sqrt{2}$ -Mo ₆ S ₆ nanowires encapsulated inside carbon nanotubes. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2021, 134, 114891.	1.3	0
15	Single transition metal atom modified MoSe ₂ as a promising electrocatalyst for nitrogen Fixation: A first-principles study. <i>Chemical Physics Letters</i> , 2021, 780, 138939.	1.2	5
16	A 2D ZnSe/BiOX vertical heterostructure as a promising photocatalyst for water splitting: a first-principles study. <i>Journal Physics D: Applied Physics</i> , 2020, 53, 055108.	1.3	13
17	Freestanding, Hierarchical, and Porous Bilayered Na _x V ₂ O ₅ ·nH ₂ O/rGO/CNT Composites as High-Performance Cathode Materials for Nonaqueous K-Ion Batteries and Aqueous Zinc-Ion Batteries. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 706-716.	4.0	82
18	Mesoporous Mn-doped and carbon-coated NaTi ₂ (PO ₄) ₃ nanocrystals as an anode material for improved performance of sodium-ion hybrid capacitors. <i>Journal of Materials Science: Materials in Electronics</i> , 2020, 31, 17550-17562.	1.1	5

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19	Scalable In Situ Reactive Assembly of Polypyrrole-Coated MnO ₂ Nanowire and Carbon Nanotube Composite as Freestanding Cathodes for High Performance Aqueous Zn-Ion Batteries. ChemElectroChem, 2020, 7, 2762-2770.	1.7	45
20	Yolk-shell spheres constructed of ultrathin MoSe ₂ nanosheets as a high-performance anode for sodium dual ion batteries. Solid State Ionics, 2020, 353, 115373.	1.3	27
21	Intrinsic defect engineered Janus MoSSe sheet as a promising photocatalyst for water splitting. RSC Advances, 2020, 10, 10816-10825.	1.7	22
22	Porous N-doped carbon sheets wrapped MnO in 3D carbon networks as high-performance anode for Li-ion batteries. Electrochimica Acta, 2020, 342, 136115.	2.6	37
23	Bonding-antibonding state transition induces multiple electron modulations toward oxygen reduction reaction electrocatalysis. New Journal of Chemistry, 2020, 44, 8191-8197.	1.4	6
24	Role of intrinsic dipole on photocatalytic water splitting for Janus MoSSe/nitrides heterostructure: A first-principles study. Progress in Natural Science: Materials International, 2019, 29, 335-340.	1.8	28
25	Free-standing 3D composite of CoO nanocrystals anchored on carbon nanotubes as high-power anodes in Li-Ion hybrid supercapacitors. Journal of Power Sources, 2019, 437, 226934.	4.0	57
26	Well-dispersed MnO-quantum-dots/N-doped carbon layer anchored on carbon nanotube as free-standing anode for high-performance Li-Ion batteries. Electrochimica Acta, 2019, 319, 302-311.	2.6	16
27	Tuning the electronic properties of monolayer MoS ₂ , MoSe ₂ and MoSSe by applying z-axis strain. Chemical Physics Letters, 2019, 730, 191-197.	1.2	29
28	Hierarchically Pomegranate-Like MnO@porous Carbon Microspheres as an Enhanced Capacity Anode for Lithium-Ion Batteries. ChemElectroChem, 2019, 6, 2891-2900.	1.7	15
29	Hierarchical MoS ₂ @N-Doped Carbon Hollow Spheres with Enhanced Performance in Sodium Dual-Ion Batteries. ChemElectroChem, 2019, 6, 661-667.	1.7	24
30	Ultra-low thermal conductivity of two-dimensional phononic crystals in the incoherent regime. Npj Computational Materials, 2018, 4, .	3.5	99
31	Tunable dipole and carrier mobility for a few layer Janus MoSSe structure. Journal of Materials Chemistry C, 2018, 6, 1693-1700.	2.7	164
32	3D nanocomposite architecture constructed by reduced graphene oxide, thermally-treated protein and mesoporous NaTi ₂ (PO ₄) ₃ nanocrystals as free-standing electrodes for advanced sodium ion battery. Journal of Materials Science: Materials in Electronics, 2018, 29, 9258-9267.	1.1	10
33	Engineering Ultrathin C ₃ N ₄ Quantum Dots on Graphene as a Metal-Free Water Reduction Electrocatalyst. ACS Catalysis, 2018, 8, 3965-3970.	5.5	130
34	Hierarchical Porous Nitrogen-Doped Carbon Constructed of Crumpled and Interconnected Graphene-Like Nanosheets for Sodium-Ion Batteries and All-Solid-State Symmetric Supercapacitors. ChemElectroChem, 2018, 5, 546-557.	1.7	18
35	Three-dimensional interconnected Ni(Fe)OxHy nanosheets on stainless steel mesh as a robust integrated oxygen evolution electrode. Nano Research, 2018, 11, 1294-1300.	5.8	103
36	The effects of subsurface Ov and Tiint of anatase (100) surface on CO ₂ conversion: A first-principles study. Computational Materials Science, 2018, 155, 424-430.	1.4	8

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37	Ultrafast hetero-assembly of monolithic interwoven V ₂ O ₅ nanobelts/carbon nanotubes architectures for high-energy alkali-ion batteries. <i>Journal of Power Sources</i> , 2018, 395, 295-304.	4.0	37
38	Free-standing Hierarchical Porous Assemblies of Commercial TiO ₂ Nanocrystals and Multi-walled Carbon Nanotubes as High-performance Anode Materials for Sodium Ion Batteries. <i>Electrochimica Acta</i> , 2017, 236, 33-42.	2.6	29
39	Protein-assisted assembly of mesoporous nanocrystals and carbon nanotubes for self-supporting high-performance sodium electrodes. <i>Journal of Materials Chemistry A</i> , 2017, 5, 2749-2758.	5.2	24
40	A macroscopic three-dimensional tetrapod-separated graphene-like oxygenated N-doped carbon nanosheet architecture for use in supercapacitors. <i>Journal of Materials Chemistry A</i> , 2016, 4, 9900-9909.	5.2	86
41	A Facile and Low-Cost Route to Heteroatom Doped Porous Carbon Derived from <i>Broussonetia Papyrifera</i> Bark with Excellent Supercapacitance and CO ₂ Capture Performance. <i>Scientific Reports</i> , 2016, 6, 22646.	1.6	52
42	MoS ₂ Quantum Dots Interspersed Li ₄ Ti ₅ O ₁₂ Nanosheets with Enhanced Performance for Li ⁺ and Na ⁺ Ion Batteries. <i>Advanced Functional Materials</i> , 2016, 26, 3349-3358.	7.8	128
43	Lithium-Ion Batteries: Rational Construction of a Functionalized V ₂ O ₅ Nanosphere/MWCNT Layer-by-Layer Nanoarchitecture as Cathode for Enhanced Performance of Lithium-Ion Batteries (Adv.) <i>Tj ETQq1 1 0z784314 rBT /Overle</i>		
44	Two-dimensional topological insulators with tunable band gaps: Single-layer HgTe and HgSe. <i>Scientific Reports</i> , 2015, 5, 14115.	1.6	50
45	Rational Construction of a Functionalized V ₂ O ₅ Nanosphere/MWCNT Layer-by-Layer Nanoarchitecture as Cathode for Enhanced Performance of Lithium-Ion Batteries. <i>Advanced Functional Materials</i> , 2015, 25, 5633-5639.	7.8	62
46	Electronic and magnetism properties of two-dimensional stacked nickel hydroxides and nitrides. <i>Scientific Reports</i> , 2015, 5, 11656.	1.6	10
47	Pristine and defect-containing phosphorene as promising anode materials for rechargeable Li batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 11246-11252.	5.2	136
48	Ce ₂ O ₂ S anchored on graphitized carbon with tunable architectures as a new promising anode for Li-ion batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 10026-10030.	5.2	10
49	First-Principles Study of Phosphorene and Graphene Heterostructure as Anode Materials for Rechargeable Li Batteries. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 5002-5008.	2.1	274
50	Self-assembled FeS ₂ cubes anchored on reduced graphene oxide as an anode material for lithium ion batteries. <i>Journal of Materials Chemistry A</i> , 2015, 3, 2090-2096.	5.2	122
51	Phonon mean free path spectrum and thermal conductivity for Si ^{1-x} Gex nanowires. <i>Applied Physics Letters</i> , 2014, 104, .	1.5	46
52	Quantum confinement in graphene quantum dots. <i>Physica Status Solidi - Rapid Research Letters</i> , 2014, 8, 436-440.	1.2	18
53	Modulating the atomic and electronic structures through alloying and heterostructure of single-layer MoS ₂ . <i>Journal of Materials Chemistry A</i> , 2014, 2, 2101-2109.	5.2	92
54	Electrochemically reduced graphene oxide with porous structure as a binder-free electrode for high-rate supercapacitors. <i>RSC Advances</i> , 2014, 4, 13673.	1.7	48

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55	Size and boundary scattering controlled contribution of spectral phonons to the thermal conductivity in graphene ribbons. <i>Journal of Applied Physics</i> , 2014, 115, .	1.1	28
56	Self-Assembled Three-Dimensional Graphene-Based Aerogel with Embedded Multifarious Functional Nanoparticles and Its Excellent Photoelectrochemical Activities. <i>ACS Sustainable Chemistry and Engineering</i> , 2014, 2, 741-748.	3.2	143
57	An extremely stable MnO ₂ anode incorporated with 3D porous graphene-like networks for lithium-ion batteries. <i>Journal of Materials Chemistry A</i> , 2014, 2, 3163.	5.2	91
58	A Bond-order Theory on the Phonon Scattering by Vacancies in Two-dimensional Materials. <i>Scientific Reports</i> , 2014, 4, 5085.	1.6	91
59	In situ shape and phase transformation synthesis of Co ₃ S ₄ nanosheet arrays for high-performance electrochemical supercapacitors. <i>RSC Advances</i> , 2013, 3, 22922.	1.7	66
60	Fe ₃ O ₄ @carbon nanocomposites via a simple synthesis as anode materials for rechargeable lithium ion batteries. <i>CrystEngComm</i> , 2013, 15, 9849.	1.3	28
61	Spiral growth of topological insulator Sb ₂ Te ₃ nanoplates. <i>Applied Physics Letters</i> , 2013, 102, .	1.5	32
62	Thermoelectric properties of gamma-graphyne nanoribbons and nanojunctions. <i>Journal of Applied Physics</i> , 2013, 114, .	1.1	49
63	Significantly improved high-rate Li-ion batteries anode by encapsulating tin dioxide nanocrystals into mesotunnels. <i>CrystEngComm</i> , 2013, 15, 8537.	1.3	21
64	R-graphyne: a new two-dimensional carbon allotrope with versatile Dirac-like point in nanoribbons. <i>Journal of Materials Chemistry A</i> , 2013, 1, 5341.	5.2	118
65	Electrostatic properties of few-layer MoS ₂ films. <i>AIP Advances</i> , 2013, 3, .	0.6	46
66	Fermi level tuning of topological insulator Bi ₂ (S ₂ Te _{1-x}) ₃ nanoplates. <i>Journal of Applied Physics</i> , 2013, 113, 024306.	1.1	12
67	Surface and substrate induced effects on thin films of the topological insulators Bi ₂ Se ₃ and Bi ₂ Te ₃ . <i>Physical Review B</i> , 2012, 86, .	1.1	49
68	Synthesis and characterization of few-layer Sb ₂ Te ₃ nanoplates with electrostatic properties. <i>RSC Advances</i> , 2012, 2, 10694.	1.7	19
69	Quantum oscillation of Rashba spin splitting in topological insulator Bi ₂ Se ₃ induced by the quantum size effects of Pb adlayers. <i>Physical Review B</i> , 2012, 86, .	1.1	19
70	Upconversion-P25-graphene composite as an advanced sunlight driven photocatalytic hybrid material. <i>Journal of Materials Chemistry</i> , 2012, 22, 11765.	6.7	119
71	Thermal transport in graphyne nanoribbons. <i>Physical Review B</i> , 2012, 85, .	1.1	103
72	Enhanced gas sensor based on nitrogen-vacancy graphene nanoribbons. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2012, 376, 559-562.	0.9	49

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73	Energy gaps in nitrogen delta-doping graphene: A first-principles study. Applied Physics Letters, 2011, 99, 012107.	1.5	25
74	Modified Morphology of Graphene Sheets by Argon-Atom Bombardment: Molecular Dynamics Simulations. Journal of Nanoscience and Nanotechnology, 2011, 11, 10863-10867.	0.9	3
75	Molecular dynamics simulation of Argon-atom bombardment on graphene sheets. , 2010, , .		0
76	The role of permanent and induced electrostatic dipole moments for Schottky barriers in Janus MXY/graphene heterostructures: a first-principles study. Dalton Transactions, 0, , .	1.6	11