Jianguo Wen

List of Publications by Year
in descending order

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85 papers	5,525 citations	172457 29 h-index	79698 73 g-index
91 all docs	91 docs citations	91 times ranked	7485 citing authors

#	Article	IF	Citations
1	Ultralow-loading platinum-cobalt fuel cell catalysts derived from imidazolate frameworks. Science, 2018, 362, 1276-1281.	12.6	735
2	A lithiumâ€“oxygen battery based on lithium superoxide. Nature, 2016, 529, 377-382.	27.8	633
3	A nanostructured cathode architecture for low charge overpotential in lithium-oxygen batteries. Nature Communications, 2013, 4, 2383.	12.8	379
4	Observation of Microstructural Evolution in Li Battery Cathode Oxide Particles by In Situ Electron Microscopy. Advanced Energy Materials, 2013, 3, 1098-1103.	19.5	336
5	Effectively suppressing dissolution of manganese from spinel lithium manganate via a nanoscale surface-doping approach. Nature Communications, 2014, 5, 5693.	12.8	255
6	Understanding Co roles towards developing Co-free Ni-rich cathodes for rechargeable batteries. Nature Energy, 2021, 6, 277-286.	39.5	255
7	Origin of structural degradation in Li-rich layered oxide cathode. Nature, 2022, 606, 305-312.	27.8	206
8	Effect of the size-selective silver clusters on lithium peroxide morphology in lithiumâ€“oxygen batteries. Nature Communications, 2014, 5, 4895.	12.8	186
9	Imaging the Atomic Surface Structures of CeO₂ Nanoparticles. Nano Letters, 2014, 14, 191-196.	9.1	183
10	Correlation between manganese dissolution and dynamic phase stability in spinel-based lithium-ion battery. Nature Communications, 2019, 10, 4721.	12.8	182
11	Enabling the high capacity of lithium-rich anti-fluorite lithium iron oxide by simultaneous anionic and cationic redox. Nature Energy, 2017, 2, 963-971.	39.5	140
12	Alloyingâ€“realloying enabled high durability for Ptâ€“Pd-3d-transition metal nanoparticle fuel cell catalysts. Nature Communications, 2021, 12, 859.	12.8	137
13	Two-dimensional superconductivity and anisotropic transport at KTaO ₃ (111) interfaces. Science, 2021, 371, 716-721.	12.6	136
14	Amorphization mechanism of SrIrO ₃ electrocatalyst: How oxygen redox initiates ionic diffusion and structural reorganization. Science Advances, 2021, 7, .	10.3	122
15	Growth of Au on Pt Icosahedral Nanoparticles Revealed by Low-Dose In Situ TEM. Nano Letters, 2015, 15, 2711-2715.	9.1	106
16	Effect of doping on the performance of high-crystalline SrMnO3 perovskite nanofibers as a supercapacitor electrode. Ceramics International, 2018, 44, 21982-21992.	4.8	102
17	Interfacial Effects on Lithium Superoxide Disproportionation in Li-O₂ Batteries. Nano Letters, 2015, 15, 1041-1046.	9.1	92
18	Rational design of mechanically robust Ni-rich cathode materials via concentration gradient strategy. Nature Communications, 2021, 12, 6024.	12.8	80

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19	Synthesis of quenchable amorphous diamond. Nature Communications, 2017, 8, 322.	12.8	74
20	Doubling the critical current density of high temperature superconducting coated conductors through proton irradiation. Applied Physics Letters, 2013, 103, .	3.3	70
21	Atomically Precise Strategy to a PtZn Alloy Nanocluster Catalyst for the Deep Dehydrogenation of n-Butane to 1,3-Butadiene. ACS Catalysis, 2018, 8, 10058-10063.	11.2	67
22	Tribological Behavior of NiAl-Layered Double Hydroxide Nanoplatelets as Oil-Based Lubricant Additives. ACS Applied Materials & Interfaces, 2017, 9, 30891-30899.	8.0	59
23	Pressure-induced tuning of lattice distortion in a high-entropy oxide. Communications Chemistry, 2019, 2, .	4.5	53
24	Highly crystalline sodium manganese ferrocyanide microcubes for advanced sodium ion battery cathodes. Journal of Materials Chemistry A, 2019, 7, 22248-22256.	10.3	51
25	Selective Growth of a Discontinuous Subnanometer Pd Film on Carbon Defects for Liâ€“O₂ Batteries. ACS Energy Letters, 2019, 4, 2782-2786.	17.4	50
26	Semi-artificial Photosynthetic CO₂ Reduction through Purple Membrane Re-engineering with Semiconductor. Journal of the American Chemical Society, 2019, 141, 11811-11815.	13.7	44
27	Electrophilic Organoiridium(III) Pincer Complexes on Sulfated Zirconia for Hydrocarbon Activation and Functionalization. Journal of the American Chemical Society, 2019, 141, 6325-6337.	13.7	38
28	Enhanced Electrochemical Performance of Sodium Manganese Ferrocyanide by Na₃(VOPO₄)₂F Coating for Sodium-Ion Batteries. ACS Applied Materials & Interfaces, 2019, 11, 37685-37692.	8.0	33
29	Tribochemical Conversion of Methane to Graphene and Other Carbon Nanostructures: Implications for Friction and Wear. ACS Applied Nano Materials, 2020, 3, 8060-8067.	5.0	32
30	Catalytically Active Oil-Based Lubricant Additives Enabled by Calcining Niâ€“Al Layered Double Hydroxides. Journal of Physical Chemistry Letters, 2020, 11, 113-120.	4.6	31
31	Intermediate Sr₂Co_{1.5}Fe_{0.5}O_{6â^Î´} Tetragonal Structure between Perovskite and Brownmillerite as a Model Catalyst with Layered Oxygen Deficiency for Enhanced Electrochemical Water Oxidation. ACS Catalysis, 2021, 11, 4327-4337.	11.2	31
32	High Nickel and No Cobaltâ”€The Pursuit of Next-Generation Layered Oxide Cathodes. ACS Applied Materials & Interfaces, 2022, 14, 23056-23065.	8.0	30
33	Enhanced long-term cyclability in Li-Rich layered oxides by electrochemically constructing a LixTM3-xO4-type spinel shell. Nano Energy, 2020, 77, 105188.	16.0	29
34	Two-way tuning of structural order in metallic glasses. Nature Communications, 2020, 11, 314.	12.8	29
35	A novel reversible fluorescent probe for the highly sensitive detection of nitro and peroxide organic explosives using electrospun BaWO₄ nanofibers. Journal of Materials Chemistry C, 2019, 7, 14949-14961.	5.5	27
36	Achieving High Stability and Performance in P2â€Type Mnâ€Based Layered Oxides with Tetravalent Cations for Sodiumâ€Ion Batteries. Small, 2022, 18, e2201086.	10.0	25

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37	Bifunctional Janus Particles as Multivalent Synthetic Nanoparticle Antibodies (SNAbs) for Selective Depletion of Target Cells. Nano Letters, 2021, 21, 875-886.	9.1	24
38	Epitaxial Er-doped Y2O3 on silicon for quantum coherent devices. APL Materials, 2020, 8, .	5.1	23
39	Assembly of Î³-Fe2O3/polyaniline nanofilms with tuned dipolar interaction. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	21
40	Stabilized Lithium, Manganese-Rich Layered Cathode Materials Enabled by Integrating Co-Doping and Nanocoating. ACS Applied Materials & Interfaces, 2021, 13, 22597-22607.	8.0	21
41	(S)TEM-EELS as an advanced characterization technique for lithium-ion batteries. Materials Chemistry Frontiers, 2021, 5, 5186-5193.	5.9	20
42	Rate mechanism of vanadium oxide coated tin dioxide nanowire electrode for lithium ion battery. Nano Energy, 2017, 42, 294-299.	16.0	18
43	Surfaceâ€Mediated Interconnections of Nanoparticles in Cellulosic Fibrous Materials toward 3D Sensors. Advanced Materials, 2020, 32, e2002171.	21.0	18
44	Size- and concentration-dependent Eu2+/Eu3+ mixed luminescent characteristics of rare-earth-doped CaF2 nanoparticles and their monolithic epoxy nanocomposites. Journal of Alloys and Compounds, 2021, 857, 157591.	5.5	18
45	A stable rhodium single-site catalyst encapsulated within dendritic mesoporous nanochannels. Nanoscale, 2018, 10, 1047-1055.	5.6	17
46	Fast luminescence from rare-earth-codoped BaSiF6 nanowires with high aspect ratios. Journal of Materials Chemistry C, 2018, 6, 7285-7294.	5.5	17
47	High-Rate Long Cycle-Life Li-Air Battery Aided by Bifunctional InX₃ (X = I and Br) Redox Mediators. ACS Applied Materials & Interfaces, 2021, 13, 4915-4922.	8.0	17
48	Predicting Morphological Evolution during Coprecipitation of MnCO₃ Battery Cathode Precursors Using Multiscale Simulations Aided by Targeted Synthesis. Chemistry of Materials, 2020, 32, 9126-9139.	6.7	15
49	Kinetic Growth Regimes of Hydrothermally Synthesized Potassium Tantalate Nanoparticles. Nano Letters, 2018, 18, 5186-5191.	9.1	14
50	Atomistic manipulation of reversible oxidation and reduction in Ag with an electron beam. Nanoscale, 2019, 11, 10756-10762.	5.6	14
51	The Effect of Potassium Impurities Deliberately Introduced into Activated Carbon Cathodes on the Performance of Lithiumâ€“Oxygen Batteries. ChemSusChem, 2015, 8, 4235-4241.	6.8	13
52	Luminescence characteristics of rare-earth-doped barium hexafluorogermanate BaGeF6 nanowires: fast subnanosecond decay time and high sensitivity in H2O2 detection. RSC Advances, 2018, 8, 39296-39306.	3.6	13
53	Facile and scalable dry surface doping technique to enhance the electrochemical performance of LiNi0.64Mn0.2Co0.16O2 cathode materials. Journal of Materials Chemistry A, 2020, 8, 19866-19872.	10.3	12
54	Visualizing Anisotropic Oxygen Diffusion in Ceria under Activated Conditions. Physical Review Letters, 2020, 124, 056002.	7.8	12

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55	Electric field control of magnon spin currents in an antiferromagnetic insulator. Science Advances, 2021, 7, eabg1669.	10.3	12
56	Magnetic Effect of Dopants on Bright and Dark Excitons in Strongly Confined Mn-Doped CsPbI₃ Quantum Dots. Nano Letters, 2021, 21, 9543-9550.	9.1	12
57	In Situ Formed Ir₃Li Nanoparticles as Active Cathode Material in Liâ€“Oxygen Batteries. Journal of Physical Chemistry A, 2019, 123, 10047-10056.	2.5	11
58	Process Engineering to Increase the Layered Phase Concentration in the Immediate Products of Flame Spray Pyrolysis. ACS Applied Materials & Interfaces, 2021, 13, 26915-26923.	8.0	11
59	Valence Effects of Fe Impurity for Recovered LiNi_{0.6}Co_{0.2}Mn_{0.2}O₂ Cathode Materials. ACS Applied Energy Materials, 2021, 4, 10356-10367.	5.1	11
60	New Compounds and Phase Selection of Nickel Sulfides via Oxidation State Control in Molten Hydroxides. Journal of the American Chemical Society, 2021, 143, 13646-13654.	13.7	10
61	Dynamics of Transformation from Platinum Icosahedral Nanoparticles to Larger FCC Crystal at Millisecond Time Resolution. Scientific Reports, 2017, 7, 17243.	3.3	9
62	Machine learning the metastable phase diagram of covalently bonded carbon. Nature Communications, 2022, 13, .	12.8	9
63	Ultrafast formation of a transient two-dimensional diamondlike structure in twisted bilayer graphene. Physical Review B, 2020, 102, .	3.2	8
64	Activation of Low-Valent, Multiply Mâ€“M Bonded Group VI Dimers toward Catalytic Olefin Metathesis via Surface Organometallic Chemistry. Organometallics, 2020, 39, 1035-1045.	2.3	8
65	Dopant site-dependent luminescence from rare-earth doped dibarium octafluorohafnate Ba₂HfF₈ nanocubes for radiation detection. Journal of Materials Chemistry C, 2021, 9, 1721-1729.	5.5	8
66	Insights into the extraction of photogenerated holes from CdSe/CdS nanorods for oxidative organic catalysis. Journal of Materials Chemistry A, 2021, 9, 12690-12699.	10.3	8
67	Advanced nanoscale characterization of aluminum nanoparticles with modified surface morphology via atmospheric helium and carbon monoxide plasmas. Journal of Applied Physics, 2021, 129, .	2.5	7
68	Rare-earth-doped electrospun scheelite CaWO4 nanofibers with excitation-dependent photoluminescence and high-linearity cathodoluminescence for ratiometric UV wavelength and radiation sensors. Optical Materials, 2022, 126, 112130.	3.6	7
69	Ultrathin Porous Hydrocarbon Membranes Templated by Nanoparticle Assemblies. Nano Letters, 2021, 21, 166-174.	9.1	6
70	Electrospun porous Laâ€“Srâ€“Coâ€“Niâ€“O nanofibers for highly sensitive non-enzymatic glucose detection. Materials Advances, 2022, 3, 2096-2103.	5.4	6
71	Lithium-Ion Battery Materials as Tunable, â€œRedox Non-Innocentâ€•Catalyst Supports. ACS Catalysis, 0, , 7233-7242.	11.2	6
72	Discovery of Gold Nanoparticles in Marcellus Shale. ACS Earth and Space Chemistry, 2021, 5, 129-135.	2.7	4

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73	Identifying Support Effects in Au-Catalyzed CO Oxidation. ACS Catalysis, 2021, 11, 11921-11928.	11.2	4
74	Chemisorption-Driven Roughening of Hydrothermally Grown KTa_{1â€“x}Nb_xO₃ Nanoparticles. Journal of Physical Chemistry C, 2020, 124, 7988-7993.	3.1	3
75	Superconductivity in Y₄RuGe₈ with a Vacancy-Ordered CeNiSi₂-Type Superstructure. Chemistry of Materials, 2021, 33, 7839-7847.	6.7	3
76	Structure of the (110) <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>L</mml:mi><mml:mi>n</mml:mi><mml:mi>Sc</mml:mi> mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub><mml:mo>Â</mml:mo><mml:mo>(</mml:mo><mml:mi>L</mml surfaces. Physical Review Materials, 2020, 4, .	2.4	3
77	Effects of Superparamagnetic Iron Nanoparticles on Electrocatalysts for the Reduction of Oxygen. Inorganic Chemistry, 2021, 60, 4236-4242.	4.0	2
78	Unveiling the roles of Co and Mn in structural stability for Ni-rich Cathodes. Microscopy and Microanalysis, 2021, 27, 3436-3438.	0.4	2
79	Grain Growth in Nanosized Nickel Deformed in a Confining Environment. Journal of Physical Chemistry C, 2019, 123, 13944-13950.	3.1	1
80	Molecular beam epitaxy of PdO on MgO (001). Physical Review Materials, 2021, 5, .	2.4	1
81	Spontaneous formation of anisotropic microrods from paraffin wax in an aqueous environment. Soft Matter, 2021, 18, 156-161.	2.7	1
82	Complex Fluorine Chemical Potential Effects on the Shape and Compositional Heterogeneity of KTa_{1â€“x}Nb_xO₃ Nanoparticles. Journal of Physical Chemistry C, 2020, 124, 26012-26017.	3.1	1
83	ScOx rich surface terminations on lanthanide scandate nanoparticles. Physical Review Materials, 2021, 5, .	2.4	1
84	Cathodoluminescence of alkaline earth hexafluorometallate nanowires. Microscopy and Microanalysis, 2021, 27, 3276-3278.	0.4	0
85	Photo-induced ultrafast phase transition in twisted bilayer graphene. Microscopy and Microanalysis, 2021, 27, 2954-2956.	0.4	0