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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

93 papers	1,648 citations	21 h-index	38 g-index
98 ext. papers	2,063 ext. citations	7.4 avg, IF	4.89 L-index

#	Paper	IF	Citations
93	Si/Ge double-layered nanotube array as a lithium ion battery anode. <i>ACS Nano</i> , 2012 , 6, 303-9	16.7	209
92	Advantageous crystalline/morphous phase boundary for enhanced electrochemical water oxidation. <i>Energy and Environmental Science</i> , 2019 , 12, 2443-2454	35.4	172
91	Unusual Na Ion Intercalation/Deintercalation in Metal-Rich CuS for Na-Ion Batteries. <i>ACS Nano</i> , 2018 , 12, 2827-2837	16.7	103
90	Parallelized Reaction Pathway and Stronger Internal Band Bending by Partial Oxidation of Metal Sulfide/Graphene Composites: Important Factors of Synergistic Oxygen Evolution Reaction Enhancement. <i>ACS Catalysis</i> , 2018 , 8, 4091-4102	13.1	79
89	Simultaneously Controllable Doping Sites and the Activity of a W/Ni Codoped TiO ₂ Photocatalyst. <i>ACS Catalysis</i> , 2016 , 6, 2745-2753	13.1	76
88	Hierarchically assembled tubular shell-core-shell heterostructure of hybrid transition metal chalcogenides for high-performance supercapacitors with ultrahigh cyclability. <i>Nano Energy</i> , 2017 , 37, 15-23	17.1	60
87	Electronically Double-Layered Metal Boride Hollow Nanoprism as an Excellent and Robust Water Oxidation Electrocatalysts. <i>Advanced Energy Materials</i> , 2019 , 9, 1803799	21.8	52
86	Electrochemically activated cobalt nickel sulfide for an efficient oxygen evolution reaction: partial amorphization and phase control. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 3592-3602	13	51
85	Effect of nitrogen induced defects in Li dispersed graphene on hydrogen storage. <i>International Journal of Hydrogen Energy</i> , 2013 , 38, 4611-4617	6.7	50
84	Defect engineering toward strong photocatalysis of Nb-doped anatase TiO ₂ : Computational predictions and experimental verifications. <i>Applied Catalysis B: Environmental</i> , 2017 , 206, 520-530	21.8	48
83	Chemical and structural engineering of transition metal boride towards excellent and sustainable hydrogen evolution reaction. <i>Nano Energy</i> , 2020 , 67, 104245	17.1	41
82	TiO ₂ nanotube branched tree on a carbon nanofiber nanostructure as an anode for high energy and power lithium ion batteries. <i>Nano Research</i> , 2014 , 7, 491-501	10	38
81	Understanding the interplay of stability and efficiency in A-site engineered lead halide perovskites. <i>APL Materials</i> , 2020 , 8, 070901	5.7	35
80	Improving Electrochemical Pb Detection Using a Vertically Aligned 2D MoS Nanofilm. <i>Analytical Chemistry</i> , 2019 , 91, 11770-11777	7.8	32
79	Microstructural control of new intercalation layered titanoniobates with large and reversible d-spacing for easy Na ion uptake. <i>Science Advances</i> , 2017 , 3, e1700509	14.3	32
78	Synergetic control of band gap and structural transformation for optimizing TiO ₂ photocatalysts. <i>Applied Catalysis B: Environmental</i> , 2017 , 210, 513-521	21.8	27
77	Self-assembled heterojunction of metal sulfides for improved photocatalysis. <i>Chemical Engineering Journal</i> , 2020 , 395, 125092	14.7	27

76	Ultrasonic Plasma Engineering Toward Facile Synthesis of Single-Atom M-N/N-Doped Carbon (M = Fe, Co) as Superior Oxygen Electrocatalyst in Rechargeable Zinc-Air Batteries. <i>Nano-Micro Letters</i> , 2021 , 13, 60	19.5	26
75	Few-layered metallic 1T-MoS/TiO with exposed (001) facets: two-dimensional nanocomposites for enhanced photocatalytic activities. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 28207-28215	3.6	24
74	In situ reduction and exfoliation of g-C ₃ N ₄ nanosheets with copious active sites via a thermal approach for effective water splitting. <i>Catalysis Science and Technology</i> , 2019 , 9, 1004-1012	5.5	23
73	Electronically-Coupled Phase Boundaries in Fe ₂ O ₃ /Fe ₃ O ₄ Nanocomposite Photoanodes for Enhanced Water Oxidation. <i>ACS Applied Nano Materials</i> , 2019 , 2, 334-342	5.6	23
72	Roles of an oxygen Frenkel pair in the photoluminescence of Bi ³⁺ -doped Y ₂ O ₃ : computational predictions and experimental verifications. <i>Journal of Materials Chemistry C</i> , 2014 , 2, 6017-6024	7.1	20
71	Dissimilar anisotropy of electron versus hole bulk transport in anatase TiO ₂ : Implications for photocatalysis. <i>Physical Review B</i> , 2017 , 95,	3.3	17
70	Correlated visible-light absorption and intrinsic magnetism of SrTiO ₃ due to oxygen deficiency: bulk or surface effect?. <i>Inorganic Chemistry</i> , 2015 , 54, 3759-65	5.1	17
69	Laser-engineered oxygen vacancies for improving the NO ₂ sensing performance of SnO ₂ nanowires. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 27205-27211	13	16
68	Unsymmetrical Small Molecules for Broad-Band Photoresponse and Efficient Charge Transport in Organic Phototransistors. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 25066-25074	9.5	14
67	Partial Dehydration in Hydrated Tungsten Oxide Nanoplates Leads to Excellent and Robust Bifunctional Oxygen Reduction and Hydrogen Evolution Reactions in Acidic Media. <i>ACS Sustainable Chemistry and Engineering</i> , 2020 , 8, 9507-9518	8.3	13
66	Ferroelectric control of magnetic anisotropy of FePt/BaTiO ₃ magnetoelectric heterojunction: A density functional theory study. <i>Journal of Applied Physics</i> , 2013 , 113, 17C729	2.5	13
65	Impact of Mg-Doping Site Control in the Performance of Li ₄ Ti ₅ O ₁₂ Li-Ion Battery Anode: First-Principles Predictions and Experimental Verifications. <i>Journal of Physical Chemistry C</i> , 2017 , 121, 14994-15001	3.8	12
64	Unexpected Roles of Interstitially Doped Lithium in Blue and Green Light Emitting YO:Bi: A Combined Experimental and Computational Study. <i>Inorganic Chemistry</i> , 2017 , 56, 12139-12147	5.1	12
63	Lattice Distortion in In ₃ SbTe ₂ Phase Change Material with Substitutional Bi. <i>Scientific Reports</i> , 2015 , 5, 12867	4.9	12
62	ALD-assisted synthesis of V ₂ O ₅ nanoislands on SnO ₂ nanowires for improving NO ₂ sensing performance. <i>Applied Surface Science</i> , 2020 , 509, 144821	6.7	12
61	Insights on boosting oxygen evolution reaction performance via boron incorporation into nitrogen-doped carbon electrocatalysts. <i>Applied Surface Science</i> , 2020 , 528, 146979	6.7	11
60	Structural evolution of graphene in air at the electrical breakdown limit. <i>Carbon</i> , 2016 , 99, 466-471	10.4	11
59	In-situ Raman spectroscopy of current-carrying graphene microbridge. <i>Journal of Raman Spectroscopy</i> , 2014 , 45, 168-172	2.3	11

58	Boosting nitrogen-doping and controlling interlayer spacing in pre-reduced graphene oxides. <i>Nano Energy</i> , 2020 , 78, 105286	17.1	11
57	C-doped ZnS-ZnO/Rh nanosheets as multijunctioned photocatalysts for effective H ₂ generation from pure water under solar simulating light. <i>Applied Catalysis B: Environmental</i> , 2021 , 297, 120473	21.8	10
56	Effect of nucleated Cu phase on magnetic properties and electronic structures in bcc Fe: Ab initio study. <i>Journal of Applied Physics</i> , 2009 , 106, 083910	2.5	9
55	Electronic Structures and Atomic Surface Diffusion in Cr/Fe(001) and Fe/Cr(001) Systems: First-Principles Study. <i>Japanese Journal of Applied Physics</i> , 2008 , 47, 5076-5078	1.4	9
54	Electronic structure, thermodynamic stability and high-temperature sensing properties of Er-BiAlON ceramics. <i>Scientific Reports</i> , 2020 , 10, 4952	4.9	8
53	Magnesium-doped zinc oxide electrochemically grown on fluorine-doped tin oxide substrate. <i>Journal of Nanoscience and Nanotechnology</i> , 2012 , 12, 3677-81	1.3	8
52	Interface-dependent magnetic anisotropy of Fe/BaTiO ₃ : A first principles study. <i>Journal of Applied Physics</i> , 2011 , 109, 07D909	2.5	8
51	Structural Evolutions of Vertically Aligned Two-Dimensional MoS ₂ Layers Revealed by in Situ Heating Transmission Electron Microscopy. <i>Journal of Physical Chemistry C</i> , 2019 , 123, 27843-27853	3.8	7
50	Interface-Dependent Spin-Reorientation Energy Barrier in Fe/MgO(001) Thin Film. <i>IEEE Electron Device Letters</i> , 2011 , 32, 1287-1289	4.4	7
49	Theoretical dopant screening and processing optimization for vanadium disulfide as cathode material for Li-air batteries: A density functional theory study. <i>Applied Surface Science</i> , 2020 , 508, 145276	6.7	7
48	Revisiting surface chemistry in TiO ₂ : A critical role of ionic passivation for pH-independent and anti-corrosive photoelectrochemical water oxidation. <i>Chemical Engineering Journal</i> , 2021 , 407, 126929	14.7	7
47	Understanding of relationship between dopant and substitutional site to develop novel phase-change materials based on In ₃ SbTe ₂ . <i>Japanese Journal of Applied Physics</i> , 2019 , 58, SB002	1.4	6
46	Surface structures and magnetic anisotropies of a Fe/Pt (001) surface: An ab initio study. <i>Journal of Applied Physics</i> , 2011 , 109, 07B764	2.5	6
45	Fundamental Understanding of the Formation Mechanism for Graphene Quantum Dots Fabricated by Pulsed Laser Fragmentation in Liquid: Experimental and Theoretical Insight. <i>Small</i> , 2020 , 16, e2003538	1.1	6
44	Theoretical Approach toward Optimum Anion-Doping on MXene Catalysts for Hydrogen Evolution Reaction: an Ab Initio Thermodynamics Study. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 37035-37043	9.5	6
43	Electric field-driven one-step formation of vertical p-n junction TiO ₂ nanotubes exhibiting strong photocatalytic hydrogen production. <i>Journal of Materials Chemistry A</i> , 2021 , 9, 2239-2247	13	6
42	Material design for Ge ₂ Sb ₂ Te ₅ phase-change material with thermal stability and lattice distortion. <i>Scripta Materialia</i> , 2019 , 170, 16-19	5.6	5
41	p-Type Conductivity of Hydrated Amorphous V ₂ O ₅ and Its Enhanced Photocatalytic Performance in ZnO/V ₂ O ₅ /rGO. <i>ACS Applied Electronic Materials</i> , 2019 , 1, 1881-1889	4	5

40	Detecting gas molecules via atomic magnetization. <i>Dalton Transactions</i> , 2014 , 43, 13070-5	4.3	5
39	Molecular dynamics simulation of film growth characterization of Fe and Cu on Cu(111) surface in the early stages of the deposition process. <i>Current Applied Physics</i> , 2011 , 11, S65-S68	2.6	5
38	The role of structural variations in the magnetism of Fe/Cu(111): First-principles calculations. <i>Computational Materials Science</i> , 2010 , 49, S291-S296	3.2	5
37	Mapping Point Defects of Brookite TiO ₂ for Photocatalytic Activity Beyond Anatase and P25. <i>Journal of Physical Chemistry C</i> , 2020 , 124, 10376-10384	3.8	5
36	Fluorine-doped graphene oxide prepared by direct plasma treatment for supercapacitor application. <i>Chemical Engineering Journal</i> , 2022 , 428, 132086	14.7	5
35	Atomic behavior of carbon atoms on a Si removed 3C-SiC (111) surface during the early stage of epitaxial graphene growth. <i>Journal of Applied Physics</i> , 2012 , 111, 104324	2.5	4
34	Effects of uniaxial strains on the magnetic properties and the electronic structures of Fe/graphene system: An ab initio study. <i>Journal of Applied Physics</i> , 2012 , 111, 07C306	2.5	4
33	Surface diffusion coefficient determination by uniaxial tensile strain in Pb/Cu(111) surface systems. <i>Current Applied Physics</i> , 2011 , 11, S400-S403	2.6	4
32	Shape-Dependent Magnetic Moment and Formation Energy of Fe Heterostructures on Cu(111): An Ab initio Study. <i>Japanese Journal of Applied Physics</i> , 2010 , 49, 06GH14	1.4	4
31	Manipulatable Interface Electric Field and Charge Transfer in a 2D/2D Heterojunction Photocatalyst via Oxygen Intercalation. <i>Catalysts</i> , 2020 , 10, 469	4	3
30	Hydrogen-free defects in hydrogenated black TiO. <i>Physical Chemistry Chemical Physics</i> , 2018 , 20, 19871-19876	1.9	3
29	Effects of Y Dopant on Lattice Distortion and Electrical Properties of In ₃ SbTe ₂ Phase-Change Material. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017 , 11, 1700275	2.5	3
28	Atomic structures and behaviors of a fcc Cu(111) surface with submonolayer Pb coverage. <i>Computational Materials Science</i> , 2010 , 47, 693-697	3.2	3
27	Energetics of Pb heterostructures formation on the Cu (111) in the early stage of the deposition process. <i>Journal of Applied Physics</i> , 2010 , 107, 114315	2.5	3
26	Alkaline oxygen evolution: exploring synergy between fcc and hcp cobalt nanoparticles entrapped in N-doped graphene. <i>Materials Today Chemistry</i> , 2022 , 23, 100668	6.2	3
25	Shape change of submicron nickel particles under hydrogen and nickel chloride vapor. <i>Applied Surface Science</i> , 2020 , 509, 145274	6.7	3
24	Triple-Vertex Linkage of (BO) ₃ -Tetrahedra in a Borosulfate: Synthesis, Crystal Structure, and Quantum-Chemical Investigation of Sr[B ₃ O ₆ (SO ₄) ₂ (SO ₃ H) ₂]. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 19740-19743	16.4	3
23	Layer Orientation-Engineered Two-Dimensional Platinum Ditelluride for High-Performance Direct Alcohol Fuel Cells. <i>ACS Energy Letters</i> , 3481-3487	20.1	3

22	Rational nanopositioning of homogeneous amorphous phase on crystalline tungsten oxide for boosting solar water oxidation. <i>Chemical Engineering Journal</i> , 2022 , 438, 135532	14.7	3
21	Near surface electric field enhancement: Pyridinic-N rich few-layer graphene encapsulating cobalt catalysts as highly active and stable bifunctional ORR/OER catalyst for seawater batteries. <i>Applied Catalysis B: Environmental</i> , 2022 , 310, 121361	21.8	3
20	Interface-Driven Phase Transition of Phase-Change Material. <i>Crystal Growth and Design</i> , 2019 , 19, 2123-2130	21.9	2
19	Surface structure effect on the magnetic anisotropy of Co/Pd (001) thin film: A first principles study. <i>Thin Solid Films</i> , 2015 , 589, 252-257	2.2	2
18	Effects of biaxial strains on the magnetic properties of Co-graphene heterojunctions. <i>Journal of Applied Physics</i> , 2012 , 111, 113922	2.5	2
17	Defect engineering of TiNb ₂ O ₇ compound for enhanced Li-ion battery anode performances. <i>Electrochimica Acta</i> , 2021 , 139603	6.7	2
16	Effects of an in vacancy on local distortion of fast phase transition in Bi-doped In ₃ SbTe ₂ . <i>Journal of the Korean Physical Society</i> , 2017 , 71, 946-949	0.6	1
15	First-principles study on the atomic and electronic structures of graphene-protected magnetic Fe/Ni(111) thin film. <i>Current Applied Physics</i> , 2012 , 12, S37-S40	2.6	1
14	Magnetic anisotropy variation of Fe single atom on Ti/Al(001) surface by the change of Ti-Al surface phase. <i>Journal of Nanoscience and Nanotechnology</i> , 2011 , 11, 6364-7	1.3	1
13	Atomic-Scale Simulations of Early Stage of Oxidation of Vicinal Si(001) Surfaces Using a Reactive Force-Field Potentials. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 10PF01	1.4	1
12	Atomic-Scale Investigation on the Ti/Fe(001) Interface Structure: Molecular Dynamics Simulations and Ab initio Calculations. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 01BE07	1.4	1
11	Rationally designed CuSb _{1-x} Bi _x S ₂ as a promising photovoltaic material: Theoretical and experimental study. <i>Scripta Materialia</i> , 2020 , 179, 107-112	5.6	0
10	Chemical Processing of Mixed-Cation Hybrid Perovskites: Stabilizing Effects of Configurational Entropy 2021 , 1-31		0
9	Strategy to utilize amorphous phase of semiconductor toward excellent and reliable photochemical water splitting performance: Roles of interface dipole moment and reaction parallelization. <i>International Journal of Energy Research</i> ,	4.5	0
8	Effects of Y Dopant on Lattice Distortion and Electrical Properties of In ₃ SbTe ₂ Phase-Change Material (Phys. Status Solidi RRL 11/2017). <i>Physica Status Solidi - Rapid Research Letters</i> , 2017 , 11, 1770356	2.5	0
7	Electronic Structures and Magnetism of Al/Fe(001) Thin-Film Systems: First-Principles Calculations. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 01BF03	1.4	
6	Electron Accumulation in LaAlO ₃ /SrTiO ₃ Interfaces by the Broken Symmetry of Crystal Field. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 10PF03	1.4	
5	Stress-induced wurtzite to hexagonal phase transformation in zinc oxide nanowires. <i>Journal of Nanoscience and Nanotechnology</i> , 2011 , 11, 10595-8	1.3	

4	Magnetic Properties of Strained L10-ordered FePt and CoPt: An ab initio Study. <i>Applied Science and Convergence Technology</i> , 2014 , 23, 273-278	0.8
3	Atomic-Scale Investigation on the Ti/Fe(001) Interface Structure: Molecular Dynamics Simulations and Ab initio Calculations. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 01BE07	1.4
2	Electronic Structures and Magnetism of Al/Fe(001) Thin-Film Systems: First-Principles Calculations. <i>Japanese Journal of Applied Physics</i> , 2011 , 50, 01BF03	1.4
1	Magnetic Properties of Iron on Strained Graphene: Density Functional Theory Study. <i>Japanese Journal of Applied Physics</i> , 2012 , 51, 06FD13	1.4