Guosheng Shao

List of Publications by Year
in descending order

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352 papers	12,789 citations	20797 60 h-index	43868 91 g-index
361 all docs	361 docs citations	361 times ranked	12472 citing authors

#	Article	IF	Citations
1	An efficient room-temperature silicon-based light-emitting diode. Nature, 2001, 410, 192-194.	13.7	612
2	Two-dimensional Ruddlesdenâ€“Popper layered perovskite solar cells based on phase-pure thin films. Nature Energy, 2021, 6, 38-45.	19.8	342
3	Porous Carbons: Structureâ€Oriented Design and Versatile Applications. Advanced Functional Materials, 2020, 30, 1909265.	7.8	316
4	Phase Pure 2D Perovskite for Highâ€Performance 2Dâ€“3D Heterostructured Perovskite Solar Cells. Advanced Materials, 2018, 30, e1805323.	11.1	244
5	Buried Interfaces in Halide Perovskite Photovoltaics. Advanced Materials, 2021, 33, e2006435.	11.1	214
6	Mn-doped TiO2 nanopowders with remarkable visible light photocatalytic activity. Materials Letters, 2011, 65, 2051-2054.	1.3	195
7	Inkjet manipulated homogeneous large size perovskite grains for efficient and large-area perovskite solar cells. Nano Energy, 2018, 46, 203-211.	8.2	155
8	Red Shift in Manganese- and Iron-Doped TiO₂: A DFT+U Analysis. Journal of Physical Chemistry C, 2009, 113, 6800-6808.	1.5	154
9	Oxidation of Nbâ€“Siâ€“Crâ€“Al in situ composites with Mo, Ti and Hf additions. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2006, 441, 26-38.	2.6	146
10	A flexible metallic <scp>TiC</scp> nanofiber/vertical graphene <scp>1D</scp>/<scp>2D</scp> heterostructured as active electrocatalyst for advanced <scp>Liâ€“S</scp> batteries. InformaÄnÃ-MateriÃ¡ly, 2021, 3, 790-803.	8.5	142
11	On the oxidation behaviour of MoSi2. Intermetallics, 2001, 9, 125-136.	1.8	137
12	Electronic Structures of Manganese-Doped Rutile TiO₂ from First Principles. Journal of Physical Chemistry C, 2008, 112, 18677-18685.	1.5	135
13	Photogenerated Electron Transfer Process in Heterojunctions: In Situ Irradiation XPS. Small Methods, 2020, 4, 2000214.	4.6	129
14	Vertically aligned graphene nanosheets on multi-yolk/shell structured TiC@C nanofibers for stable Liâ€“S batteries. Energy Storage Materials, 2020, 27, 159-168.	9.5	124
15	The formation of onion-like carbon-encapsulated cobalt carbide core/shell nanoparticles by the laser ablation of metallic cobalt in acetone. Carbon, 2013, 55, 108-115.	5.4	119
16	Recent Advances in Effective Reduction of Graphene Oxide for Highly Improved Performance Toward Electrochemical Energy Storage. Energy and Environmental Materials, 2018, 1, 5-12.	7.3	119
17	Pinecone biomass-derived hard carbon anodes for high-performance sodium-ion batteries. RSC Advances, 2017, 7, 41504-41511.	1.7	117
18	Construction of solid-state Z-scheme carbon-modified TiO2/WO3 nanofibers with enhanced photocatalytic hydrogen production. Journal of Power Sources, 2016, 328, 28-36.	4.0	114

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19	A study of the effects of Hf and Sn additions on the microstructure of Nbss/Nb5Si3 based in situ composites. Intermetallics, 2007, 15, 69-76.	1.8	110
20	Template-oriented synthesis of monodispersed SnS2@SnO2 hetero-nanoflowers for Cr(VI) photoreduction. Applied Catalysis B: Environmental, 2016, 192, 17-25.	10.8	108
21	Prediction of amorphous phase stability in the metalâ€“silicon systems. Journal of Applied Physics, 2001, 90, 724-727.	1.1	107
22	Plasmon enhancement on photocatalytic hydrogen production over the Z-scheme photosynthetic heterojunction system. Applied Catalysis B: Environmental, 2017, 210, 297-305.	10.8	107
23	Prediction of phase selection in rapid solidification using time dependent nucleation theory. Acta Metallurgica Et Materialia, 1994, 42, 2937-2942.	1.9	104
24	Highly oriented Ge-doped hematite nanosheet arrays for photoelectrochemical water oxidation. Nano Energy, 2014, 9, 282-290.	8.2	104
25	Direct evidence of 2D/1D heterojunction enhancement on photocatalytic activity through assembling MoS2 nanosheets onto super-long TiO2 nanofibers. Applied Surface Science, 2020, 504, 144361.	3.1	100
26	One-dimensional Z-scheme TiO 2 /WO 3 /Pt heterostructures for enhanced hydrogen generation. Applied Surface Science, 2017, 391, 211-217.	3.1	99
27	Lithiumâ€“Sulfur Batteries Meet Electrospinning: Recent Advances and the Key Parameters for High Gravimetric and Volume Energy Density. Advanced Science, 2022, 9, e2103879.	5.6	98
28	Thermodynamic reassessment of the Moâ€“Si and Alâ€“Moâ€“Si systems. Intermetallics, 2000, 8, 953-962.	1.8	96
29	Room temperature fabrication of p-channel Cu₂O thin-film transistors on flexible polyethylene terephthalate substrates. Applied Physics Letters, 2012, 101, 042114.	1.5	96
30	Electronic Properties of Rutile TiO₂ with Nonmetal Dopants from First Principles. Journal of Physical Chemistry C, 2011, 115, 8274-8282.	1.5	92
31	Constructing 2D layered MoS 2 nanosheets-modified Z-scheme TiO 2 /WO 3 nanofibers ternary nanojunction with enhanced photocatalytic activity. Applied Surface Science, 2018, 430, 466-474.	3.1	92
32	The effects of Ti and Mo additions on the microstructure of Nb-silicide based in situ composites. Intermetallics, 2006, 14, 227-235.	1.8	91
33	Oneâ€Step Inkjet Printed Perovskite in Air for Efficient Light Harvesting. Solar Rrl, 2018, 2, 1700217.	3.1	90
34	Thermodynamic modelling of the Yâ€“Zn and Mgâ€“Znâ€“Y systems. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2006, 30, 286-295.	0.7	89
35	Microwave-assisted growth of In₂O₃ nanoparticles on WO₃ nanoplates to improve H₂S-sensing performance. Journal of Materials Chemistry A, 2014, 2, 18867-18874.	5.2	88
36	Normal-pressure microwave rapid synthesis of hierarchical SnO₂@rGO nanostructures with superhigh surface areas as high-quality gas-sensing and electrochemical active materials. Nanoscale, 2014, 6, 13690-13700.	2.8	88

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37	Low-temperature and highly selective NO-sensing performance of WO3 nanoplates decorated with silver nanoparticles. Sensors and Actuators B: Chemical, 2013, 185, 445-455.	4.0	86
38	Role of materials chemistry on the electrical/electronic properties of CuO thin films. Acta Materialia, 2015, 85, 122-131.	3.8	86
39	Ruddlesdenâ€“Popper Perovskite for Stable Solar Cells. Energy and Environmental Materials, 2018, 1, 221-231.	7.3	85
40	Enhanced performances of dye-sensitized solar cells based on Au-TiO 2 and Ag-TiO 2 plasmonic hybrid nanocomposites. Applied Surface Science, 2018, 430, 415-423.	3.1	84
41	Reviewâ€”Research Progress on Layered Transition Metal Oxide Cathode Materials for Sodium Ion Batteries. Journal of the Electrochemical Society, 2021, 168, 050524.	1.3	82
42	Dye-sensitized solar cells based on TiO2 nanoparticles/nanobelts double-layered film with improved photovoltaic performance. Applied Surface Science, 2014, 319, 75-82.	3.1	78
43	Effect of Chromium and Niobium Doping on the Morphology and Electrochemical Performance of High-Voltage Spinel LiNi_{0.5}Mn_{1.5}O₄ Cathode Material. ACS Applied Materials & Interfaces, 2016, 8, 9116-9124.	4.0	78
44	Dual Evolution in Defect and Morphology of Singleâ€Atom Dispersed Carbon Based Oxygen Electrocatalyst. Advanced Functional Materials, 2021, 31, 2010472.	7.8	78
45	From anti-perovskite to double anti-perovskite: tuning lattice chemistry to achieve super-fast Li⁺ transport in cubic solid lithium halogenâ€“chalcogenides. Journal of Materials Chemistry A, 2018, 6, 73-83.	5.2	77
46	Chemical bath deposited rutile TiO 2 compact layer toward efficient planar heterojunction perovskite solar cells. Applied Surface Science, 2017, 391, 337-344.	3.1	76
47	Work Function and Electron Affinity of Semiconductors: Doping Effect and Complication due to Fermi Level Pinning. Energy and Environmental Materials, 2021, 4, 273-276.	7.3	75
48	Enhancing efficiency of planar structure perovskite solar cells using Sn-doped TiO2 as electron transport layer at low temperature. Electrochimica Acta, 2018, 261, 227-235.	2.6	74
49	Effective promotion of spacial charge separation in direct Z-scheme WO3/CdS/WS2 tandem heterojunction with enhanced visible-light-driven photocatalytic H2 evolution. Chemical Engineering Journal, 2020, 398, 125602.	6.6	73
50	In situ sulfur-doped graphene nanofiber network as efficient metal-free electrocatalyst for polysulfides redox reactions in lithiumâ€“sulfur batteries. Journal of Energy Chemistry, 2020, 47, 281-290.	7.1	72
51	Theoretical design of solid electrolytes with superb ionic conductivity: alloying effect on Li⁺ transportation in cubic Li₆PA₅X chalcogenides. Journal of Materials Chemistry A, 2017, 5, 21846-21857.	5.2	70
52	Ti₃C₂ MXene as an â€œenergy band bridgeâ€• to regulate the heterointerface mass transfer and electron reversible exchange process for Liâ€“S batteries. Journal of Materials Chemistry A, 2020, 8, 25255-25267.	5.2	70
53	Rational Designs for Lithiumâ€Sulfur Batteries with Low Electrolyte/Sulfur Ratio. Advanced Functional Materials, 2021, 31, 2010499.	7.8	70
54	Synthesis and Ag-loading-density-dependent photocatalytic activity of Ag@TiO2 hybrid nanocrystals. Applied Surface Science, 2013, 284, 921-929.	3.1	69

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55	First Principle Material Genome Approach for All Solidâ€State Batteries. Energy and Environmental Materials, 2019, 2, 234-250.	7.3	69
56	Electronic properties of rutile TiO2 doped with 4d transition metals: First-principles study. Journal of Alloys and Compounds, 2013, 551, 118-124.	2.8	68
57	Mild solution-processed metal-doped TiO2 compact layers for hysteresis-less and performance-enhanced perovskite solar cells. Journal of Power Sources, 2017, 372, 235-244.	4.0	66
58	Thermodynamic assessment of the Nbâ€“Siâ€“Al system. Intermetallics, 2004, 12, 655-664.	1.8	65
59	Hierarchical Fe₂O₃@WO₃ nanostructures with ultrahigh specific surface areas: microwave-assisted synthesis and enhanced H₂S-sensing performance. RSC Advances, 2015, 5, 328-337.	1.7	65
60	In Situ Fabrication of Nano Porous NiO-Capped Ni3P film as Anode for Li-Ion Battery with Different Lithiation Path and Significantly Enhanced Electrochemical Performance. Electrochimica Acta, 2016, 220, 258-266.	2.6	64
61	A novel reduction approach to fabricate quantum-sized SnO2-conjugated reduced graphene oxide nanocomposites as non-enzymatic glucose sensors. Physical Chemistry Chemical Physics, 2014, 16, 8801.	1.3	61
62	Effects of intensive forced melt convection on the mechanical properties of Fe containing Alâ€“Si based alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 445-446, 65-72.	2.6	60
63	Tracking charge transfer pathways in SrTiO3/CoP/Mo2C nanofibers for enhanced photocatalytic solar fuel production. Chinese Journal of Catalysis, 2022, 43, 507-518.	6.9	59
64	Molecular Beam Epitaxy Scalable Growth of Waferâ€Scale Continuous Semiconducting Monolayer MoTe₂ on Inert Amorphous Dielectrics. Advanced Materials, 2019, 31, e1901578.	11.1	58
65	Prediction of amorphous phase stability in metallic alloys. Journal of Applied Physics, 2000, 88, 4443.	1.1	57
66	Origin of significant visible-light absorption properties of Mn-doped TiO2 thin films. Acta Materialia, 2012, 60, 1974-1985.	3.8	56
67	On the oxidation behavior of (Zr,Nb)2Fe under simulated nuclear reactor conditions. Corrosion Science, 2016, 112, 718-723.	3.0	55
68	Controllable construction of hierarchically CdIn2S4/CNFs/Co4S3 nanofiber networks towards photocatalytic hydrogen evolution. Chemical Engineering Journal, 2021, 419, 129213.	6.6	53
69	Polyethyleneimine High-Energy Hydrophilic Surface Interfacial Treatment toward Efficient and Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 32574-32580.	4.0	52
70	A â€œThreeâ€Regionâ€•Configuration for Enhanced Electrochemical Kinetics and Highâ€Areal Capacity Lithiumâ€“Sulfur Batteries. Advanced Functional Materials, 2022, 32, .	7.8	52
71	Thermodynamic modelling of the Crâ€“Nbâ€“Si system. Intermetallics, 2005, 13, 69-78.	1.8	51
72	A thermo-gravimetric and microstructural study of the oxidation of Nbss/Nb5Si3-based in situ composites with Sn addition. Intermetallics, 2007, 15, 270-281.	1.8	51

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73	Amorphous-iron disilicide: A promising semiconductor. Applied Physics Letters, 2001, 79, 1438-1440.	1.5	50
74	Numerical study of metal oxide heterojunction solar cells. Semiconductor Science and Technology, 2011, 26, 085026.	1.0	49
75	Ge-doped hematite nanosheets with tunable doping level, structure and improved photoelectrochemical performance. Nano Energy, 2013, 2, 328-336.	8.2	49
76	Using iron fertilizer to control Cd accumulation in rice plants: A new promising technology. Science in China Series C: Life Sciences, 2008, 51, 245-253.	1.3	48
77	Spontaneous Growth and Chemical Reduction Ability of Ge Nanoparticles. Scientific Reports, 2013, 3, .	1.6	48
78	RGO-functionalized polymer nanofibrous membrane with exceptional surface activity and ultra-low airflow resistance for PM_{2.5} filtration. Environmental Science: Nano, 2018, 5, 1813-1820.	2.2	47
79	On the Ï‰ phase formation in Crâ€“Al and Tiâ€“Alâ€“Cr alloys. Acta Materialia, 2000, 48, 3671-3685.	3.8	46
80	Ultrafast solid-state lithium ion conductor through alloying induced lattice softening of Li₆PS₅Cl. Journal of Materials Chemistry A, 2018, 6, 19231-19240.	5.2	46
81	Multidimensionâ€Controllable Synthesis of Ant Nestâ€Structural Electrode Materials with Unique 3D Hierarchical Porous Features toward Electrochemical Applications. Advanced Functional Materials, 2019, 29, 1808994.	7.8	46
82	Reactive plasma deposition of high quality single phase CuO thin films suitable for metal oxide solar cells. Journal of Alloys and Compounds, 2017, 695, 3116-3123.	2.8	45
83	Construction of a low-defect and highly conductive 3D graphene network to enable a high sulphur content cathode for high performance Liâ€“S/graphene batteries. Journal of Materials Chemistry A, 2018, 6, 22555-22565.	5.2	45
84	Reduced bilateral recombination by functional molecular interface engineering for efficient inverted perovskite solar cells. Nano Energy, 2020, 78, 105249.	8.2	45
85	Complex <scp>permittivityâ€dependent</scp> plasma <scp>confinementâ€assisted</scp> growth of asymmetric vertical graphene nanofiber membrane for <scp>highâ€performance Liâ€S</scp> full cells. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	8.5	45
86	Rheo-processing of an alloy specifically designed for semi-solid metal processing based on the Alâ€“Mgâ€“Si system. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 476, 341-349.	2.6	44
87	Limitation and extrapolation correction of the GGA + U formalism: a case study of Nb-doped anatase TiO2. Journal of Materials Chemistry C, 2013, 1, 3736.	2.7	44
88	Fabrication of Predominantly Mn⁴⁺â€Doped TiO₂ Nanoparticles under Equilibrium Conditions and Their Application as Visibleâ€Light Photocatalyts. Chemistry - an Asian Journal, 2014, 9, 1904-1912.	1.7	44
89	Nanoscale hybrid multidimensional perovskites with alternating cations for high performance photovoltaic. Nano Energy, 2019, 65, 104050.	8.2	44
90	Solvent-regulated solvothermal synthesis and morphology-dependent gas-sensing performance of low-dimensional tungsten oxide nanocrystals. Sensors and Actuators B: Chemical, 2014, 205, 391-400.	4.0	43

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91	Enabling remarkable cycling performance of high-loading MoS2@Graphene anode for sodium ion batteries with tunable cut-off voltage. Journal of Power Sources, 2020, 458, 228040.	4.0	43
92	Enabling Argyrodite Sulfides as Superb Solidâ€State Electrolyte with Remarkable Interfacial Stability Against Electrodes. Energy and Environmental Materials, 2022, 5, 852-864.	7.3	43
93	Ï‰-phase formation in V[sbnd]Al and Ti[sbnd]Al[sbnd]V alloys. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1995, 71, 1389-1408.	0.7	42
94	Study of three-phase equilibrium in the Nb-rich corner of Nbâ€“Siâ€“Cr system. Intermetallics, 2006, 14, 832-837.	1.8	42
95	Mn-doped TiO₂ thin films with significantly improved optical and electrical properties. Journal Physics D: Applied Physics, 2012, 45, 485102.	1.3	42
96	Remote plasma sputtering deposited Nb-doped TiO2 with remarkable transparent conductivity. Solar Energy Materials and Solar Cells, 2016, 149, 310-319.	3.0	40
97	Synthesis of transition metal oxide nanoparticles with ultrahigh oxygen adsorption capacity and efficient catalytic oxidation performance. Journal of Materials Chemistry, 2009, 19, 6097.	6.7	39
98	Fabrication and photovoltaic performance of niobium doped TiO2 hierarchical microspheres with exposed {001} facets and high specific surface area. Applied Surface Science, 2017, 410, 241-248.	3.1	39
99	A theoretical approach to address interfacial problems in all-solid-state lithium ion batteries: tuning materials chemistry for electrolyte and buffer coatings based on Li₆PA₅Cl hali-chalcogenides. Journal of Materials Chemistry A, 2019, 7, 5239-5247.	5.2	39
100	Large-scale synthesis and enhanced visible-light-driven photocatalytic performance of hierarchical Ag/AgCl nanocrystals derived from freeze-dried PVPâ€“Ag+ hybrid precursors with porosity. Applied Catalysis B: Environmental, 2014, 144, 394-407.	10.8	38
101	Lithium Ion Conductivity in Double Antiperovskite Li_{6.5}OS_{1.5}I_{1.5}: Alloying and Boundary Effects. ACS Applied Energy Materials, 2019, 2, 6288-6294.	2.5	38
102	A mechanism assessment for the anti-corrosion of zirconia coating under the condition of subcritical water corrosion. Corrosion Science, 2019, 152, 54-59.	3.0	38
103	Multilevel polarization-fields enhanced capture and photocatalytic conversion of particulate matter over flexible schottky-junction nanofiber membranes. Journal of Hazardous Materials, 2020, 395, 122639.	6.5	38
104	Stable all-solid-state battery enabled with Li6.25PS5.25Cl0.75 as fast ion-conducting electrolyte. Journal of Energy Chemistry, 2021, 53, 147-154.	7.1	38
105	Regulation of energetic hot carriers on Pt/TiO2 with thermal energy for photothermal catalysis. Applied Catalysis B: Environmental, 2022, 309, 121263.	10.8	38
106	Durable self-polishing antifouling Cu-Ti coating by a micron-scale Cu/Ti laminated microstructure design. Journal of Materials Science and Technology, 2021, 79, 62-74.	5.6	37
107	Pinning Bromide Ion with Ionic Liquid in Leadâ€Free Cs₂AgBiBr₆ Double Perovskite Solar Cells. Advanced Functional Materials, 2022, 32, .	7.8	37
108	Theoretical design of double anti-perovskite Na₆SOI₂ as a super-fast ion conductor for solid Na⁺ ion batteries. Journal of Materials Chemistry A, 2018, 6, 19843-19852.	5.2	36

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109	Thermodynamic and kinetic aspects of intermetallic amorphous alloys. Intermetallics, 2003, 11, 313-324.	1.8	35
110	Structural engineering of thin films of vertically aligned TiO2 nanorods. Materials Letters, 2010, 64, 1614-1617.	1.3	35
111	Three-dimensional Porous Networks of Ultra-long Electrospun SnO2 Nanotubes with High Photocatalytic Performance. Nano-Micro Letters, 2015, 7, 86-95.	14.4	35
112	X-ray photoelectron spectroscopy studies of Ti-Al and Ti-Al-V alloys using Cr K? radiation. Surface and Interface Analysis, 2001, 31, 734-744.	0.8	34
113	Phase selection and visible light photo-catalytic activity of Fe-doped TiO2 prepared by the hydrothermal method. Materials Research Bulletin, 2011, 46, 442-446.	2.7	34
114	P2-type Na_{2/3}Ni_{1/3}Mn_{2/3}O₂ Cathode Material with Excellent Rate and Cycling Performance for Sodium-Ion Batteries. Journal of the Electrochemical Society, 2019, 166, A3980-A3986.	1.3	34
115	Functional carbon nitride materials for water oxidation: from heteroatom doping to interface engineering. Nanoscale, 2020, 12, 6937-6952.	2.8	34
116	Solidification structures of Tiâ€“Alâ€“Cr alloys. Intermetallics, 1999, 7, 579-587.	1.8	33
117	Electronic structure and bonding inMo3Si,Mo5Si3, andMo(Si,Al)2alloys investigated by x-ray photoelectron spectroscopy and density-functional theory. Physical Review B, 2005, 71, .	1.1	33
118	Investigation of the hydrogen bonding in ice Ih by first-principles density function methods. Journal of Chemical Physics, 2012, 137, 044504.	1.2	33
119	Covalently Connecting Crystal Grains with Polyvinylammonium Carbochain Backbone To Suppress Grain Boundaries for Long-Term Stable Perovskite Solar Cells. ACS Applied Materials & Interfaces, 2017, 9, 6064-6071.	4.0	33
120	High-capacity cathodes for magnesium lithium chlorine tri-ion batteries through chloride intercalation in layered MoS₂: a computational study. Journal of Materials Chemistry A, 2018, 6, 6830-6839.	5.2	33
121	First principles study for band engineering of KNbO₃ with 3d transition metal substitution. RSC Advances, 2019, 9, 7551-7559.	1.7	33
122	Simultaneously boost diffusion length and stability of perovskite for high performance solar cells. Nano Energy, 2019, 59, 721-729.	8.2	33
123	Calculations of charge transfer in Nbâ€“17Al and Vâ€“50Al alloys, using the Auger parameter. Intermetallics, 1999, 7, 937-946.	1.8	32
124	The formation and stacking faults of Fe and Cr containing Laves phase in Zircaloy-4 alloy. Materials Letters, 2017, 191, 203-205.	1.3	32
125	Enhanced efficiency and stability of perovskite solar cells by 2D perovskite vapor-assisted interface optimization. Journal of Energy Chemistry, 2020, 45, 103-109.	7.1	32
126	Nano-porous hollow Li_{0.5}La_{0.5}TiO₃ spheres and electronic structure modulation for ultra-fast H₂S detection. Journal of Materials Chemistry A, 2020, 8, 2376-2386.	5.2	32

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127	Computational design of high efficiency FeSi2 thin-film solar cells. Thin Solid Films, 2011, 519, 8490-8495.	0.8	31
128	The effect of cobalt doping on the morphology and electrochemical performance of high-voltage spinel LiNi0.5Mn1.5O4 cathode material. Solid State Ionics, 2016, 292, 70-74.	1.3	31
129	Simulation of planar Si/Mg 2 Si/Si p-i-n heterojunction solar cells for high efficiency. Solar Energy, 2017, 158, 654-662.	2.9	31
130	Synergistic Cooperation of Rutile TiO₂ {002}, {101}, and {110} Facets for Hydrogen Sensing. ACS Applied Materials & Interfaces, 2018, 10, 28199-28209.	4.0	31
131	Synergistic effect of cation ordered structure and grain boundary engineering on long-term cycling of Li0.35La0.55TiO3-based solid batteries. Journal of the European Ceramic Society, 2019, 39, 3332-3337.	2.8	31
132	In-plane grain boundary induced defect state in hierarchical NiCo-LDH and effect on battery-type charge storage. Nano Research, 2023, 16, 4908-4916.	5.8	31
133	Is there a future for semiconducting silicides? (invited). Microelectronic Engineering, 2000, 50, 223-235.	1.1	30
134	Effect of implantation temperature on dislocation loop formation and origin of 1.55-Î¼m photoluminescence from ion-beam-synthesized FeSi2 precipitates in silicon. Applied Physics Letters, 2003, 83, 42-44.	1.5	30
135	The effects of electron and hole transport layer with the electrode work function on perovskite solar cells. Modern Physics Letters B, 2016, 30, 1650341.	1.0	30
136	Fundamental Basis for Distinctive Sensing of H₂ in Humid Environment. Energy and Environmental Materials, 2018, 1, 174-178.	7.3	30
137	Nitrogen-doped vertical graphene nanosheets by high-flux plasma enhanced chemical vapor deposition as efficient oxygen reduction catalysts for Znâ€“air batteries. Journal of Materials Chemistry A, 2020, 8, 23248-23256.	5.2	30
138	In Situ Electrochemical Intercalationâ€Induced Phase Transition to Enhance Catalytic Performance for Lithiumâ€“Sulfur Battery. Small, 2021, 17, e2100065.	5.2	30
139	Efficient silicon light emitting diodes made by dislocation engineering. Physica E: Low-Dimensional Systems and Nanostructures, 2003, 16, 376-381.	1.3	29
140	Accelerating directional charge separation via built-in interfacial electric fields originating from work-function differences. Chinese Journal of Catalysis, 2021, 42, 583-594.	6.9	29
141	Metastability of the σ-phase in transition-metal aluminides: First-principles structural predictions. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1996, 74, 1385-1397.	0.7	28
142	On the crystallographic characteristics of ion beam synthesised Î²â€“FeSi2. Intermetallics, 2000, 8, 1405-1412.	1.8	28
143	Thermodynamic assessment of the Ruâ€“Si and Osâ€“Si systems. Journal of Alloys and Compounds, 2001, 320, 72-79.	2.8	28
144	Ion beam synthesis of superconducting MgB2 thin films. Applied Physics Letters, 2003, 82, 236-238.	1.5	28

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145	On the solidification microstructure of Mgâ€“30Znâ€“2.5Y metalâ€“intermetallic alloy. Intermetallics, 2006, 14, 596-602.	1.8	28
146	Strong interplay between dopant and SnO2 in amorphous transparent (Sn, Nb)O2 anode with high conductivity in electrochemical cycling. Journal of Alloys and Compounds, 2018, 735, 2401-2409.	2.8	28
147	Surficial Structure Retention Mechanism for LiNi_{0.8}Co_{0.15}Al_{0.05}O₂ in a Full Gradient Cathode. ACS Applied Materials & Interfaces, 2019, 11, 31991-31996.	4.0	28
148	Engineering of boron-induced dislocation loops for efficient room-temperature silicon light-emitting diodes. Journal of Applied Physics, 2005, 97, 073512.	1.1	27
149	Glass forming ability of multi-component metallic systems. Intermetallics, 2005, 13, 409-414.	1.8	27
150	Remarkable optical red shift and extremely high optical absorption coefficient of V-Ga co-doped TiO2. Journal of Applied Physics, 2012, 112, .	1.1	27
151	Theoretical tuning of Ruddlesdenâ€“Popper type anti-perovskite phases as superb ion conductors and cathodes for solid sodium ion batteries. Journal of Materials Chemistry A, 2019, 7, 10483-10493.	5.2	27
152	3D CuO Network Supported TiO₂ Nanosheets with Applications for Energy Storage and Water Splitting. Science of Advanced Materials, 2016, 8, 1256-1262.	0.1	27
153	Synthesis of amorphous FeSi2 by ion beam mixing. Nuclear Instruments & Methods in Physics Research B, 2002, 188, 166-169.	0.6	26
154	On the role of dislocation loops in silicon light emitting diodes. Applied Physics Letters, 2005, 87, 201105.	1.5	26
155	Self-aligned TiO2 thin films with remarkable hydrogen sensing functionality. Sensors and Actuators B: Chemical, 2012, 171-172, 165-171.	4.0	26
156	Enhanced thermoelectric performance via randomly arranged nanopores: Excellent transport properties of YbZn2Sb2 nanoporous materials. Acta Materialia, 2012, 60, 1741-1746.	3.8	26
157	In Situ Monitored (N, O)â€Doping of Flexible Vertical Graphene Films with Highâ€Flux Plasma Enhanced Chemical Vapor Deposition for Remarkable Metalâ€Free Redox Catalysis Essential to Alkaline Zincâ€“Air Batteries. Advanced Science, 2022, 9, e2200614.	5.6	26
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