

Xiang-Heng Xiao

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207
ext. papers

7,570
ext. citations

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L-index

#	Paper	IF	Citations
196	High Mobility MoS Transistor with Low Schottky Barrier Contact by Using Atomic Thick h-BN as a Tunneling Layer. <i>Advanced Materials</i> , 2016 , 28, 8302-8308	24	282
195	Electron density modulation of NiCoS nanowires by nitrogen incorporation for highly efficient hydrogen evolution catalysis. <i>Nature Communications</i> , 2018 , 9, 1425	17.4	266
194	Interface engineering for high-performance top-gated MoS ₂ field-effect transistors. <i>Advanced Materials</i> , 2014 , 26, 6255-61	24	227
193	Breaking the Current-Retention Dilemma in Cation-Based Resistive Switching Devices Utilizing Graphene with Controlled Defects. <i>Advanced Materials</i> , 2018 , 30, e1705193	24	157
192	Controllable synthesis, magnetic properties, and enhanced photocatalytic activity of spindlelike mesoporous Fe ₂ O ₃ /ZnO core-shell heterostructures. <i>ACS Applied Materials & Interfaces</i> , 2012 , 4, 3602-9	9.5	155
191	3D Flowerlike Fe ₂ O ₃ @TiO ₂ Core-Shell Nanostructures: General Synthesis and Enhanced Photocatalytic Performance. <i>ACS Sustainable Chemistry and Engineering</i> , 2015 , 3, 2975-2984	8.3	154
190	Plasmon-driven reaction controlled by the number of graphene layers and localized surface plasmon distribution during optical excitation. <i>Light: Science and Applications</i> , 2015 , 4, e342-e342	16.7	154
189	Significantly Enhanced Visible Light Photoelectrochemical Activity in TiO ₂ Nanowire Arrays by Nitrogen Implantation. <i>Nano Letters</i> , 2015 , 15, 4692-8	11.5	138
188	Hydrogen gas sensor based on metal oxide nanoparticles decorated graphene transistor. <i>Nanoscale</i> , 2015 , 7, 10078-84	7.7	135
187	A one-pot route to the synthesis of alloyed Cu/Ag bimetallic nanoparticles with different mass ratios for catalytic reduction of 4-nitrophenol. <i>Journal of Materials Chemistry A</i> , 2015 , 3, 3450-3455	13	128
186	Rational design of sub-parts per million specific gas sensors array based on metal nanoparticles decorated nanowire enhancement-mode transistors. <i>Nano Letters</i> , 2013 , 13, 3287-92	11.5	117
185	Confining Cation Injection to Enhance CBRAM Performance by Nanopore Graphene Layer. <i>Small</i> , 2017 , 13, 1603948	11	113
184	Large-Scale and Controlled Synthesis of Iron Oxide Magnetic Short Nanotubes: Shape Evolution, Growth Mechanism, and Magnetic Properties. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 16092-16103	3.8	113
183	Volume-Enhanced Raman Scattering Detection of Viruses. <i>Small</i> , 2019 , 15, e1805516	11	104
182	Ultrasensitive SERS performance in 3D "sunflower-like" nanoarrays decorated with Ag nanoparticles. <i>Nanoscale</i> , 2017 , 9, 3114-3120	7.7	100
181	Synthesis and Magnetic Properties of Maghemite (gamma-Fe ₂ O ₃) Short-Nanotubes. <i>Nanoscale Research Letters</i> , 2010 , 5, 1474-1479	5	100
180	Transparent, high-performance thin-film transistors with an InGaZnO/aligned-SnO ₂ -nanowire composite and their application in photodetectors. <i>Advanced Materials</i> , 2014 , 26, 7399-404	24	91

179	Low-Cost, Disposable, Flexible and Highly Reproducible Screen Printed SERS Substrates for the Detection of Various Chemicals. <i>Scientific Reports</i> , 2015 , 5, 10208	4.9	89
178	Floating gate memory-based monolayer MoS ₂ transistor with metal nanocrystals embedded in the gate dielectrics. <i>Small</i> , 2015 , 11, 208-13	11	85
177	Controlled synthesis of magnetic iron oxides@SnO ₂ quasi-hollow core-shell heterostructures: formation mechanism, and enhanced photocatalytic activity. <i>Nanoscale</i> , 2011 , 3, 4676-84	7.7	84
176	Sub-ppb detection of acetone using Au-modified flower-like hierarchical ZnO structures. <i>Sensors and Actuators B: Chemical</i> , 2015 , 219, 209-217	8.5	82
175	Facile method to synthesize magnetic iron oxides/TiO ₂ hybrid nanoparticles and their photodegradation application of methylene blue. <i>Nanoscale Research Letters</i> , 2011 , 6, 533	5	82
174	Ultrasensitive SERS Substrate Integrated with Uniform Subnanometer Scale Blot Spots Created by a Graphene Spacer for the Detection of Mercury Ions. <i>Small</i> , 2017 , 13, 1603347	11	79
173	Mechanism of the enhancement and quenching of ZnO photoluminescence by ZnO-Ag coupling. <i>Europhysics Letters</i> , 2011 , 93, 57009	1.6	79
172	Rational design of amorphous indium zinc oxide/carbon nanotube hybrid film for unique performance transistors. <i>Nano Letters</i> , 2012 , 12, 3596-601	11.5	78
171	Controllable electrical properties of metal-doped In ₂ O ₃ nanowires for high-performance enhancement-mode transistors. <i>ACS Nano</i> , 2013 , 7, 804-10	16.7	76
170	Ag-decorated ultra-thin porous single-crystalline ZnO nanosheets prepared by sunlight induced solvent reduction and their highly sensitive detection of ethanol. <i>Sensors and Actuators B: Chemical</i> , 2015 , 209, 975-982	8.5	76
169	Fully Tensile Strained PdPb/Pd Tetragonal Nanosheets Enhance Oxygen Reduction Catalysis. <i>Nano Letters</i> , 2019 , 19, 1336-1342	11.5	74
168	Tube-like ternary Fe ₂ O ₃ @SnO ₂ @Cu ₂ O sandwich heterostructures: synthesis and enhanced photocatalytic properties. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 13088-97	9.5	70
167	SiO ₂ /Ag/SiO ₂ /TiO ₂ multi-shell structures: plasmon enhanced photocatalysts with wide-spectral-response. <i>Journal of Materials Chemistry A</i> , 2013 , 1, 13128	13	64
166	Active Electron Density Modulation of Co O ₂ -Based Catalysts Enhances their Oxygen Evolution Performance. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 6929-6935	16.4	61
165	Rational Design of ZnO:H/ZnO Bilayer Structure for High-Performance Thin-Film Transistors. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 7862-8	9.5	61
164	The Midas Touch Transformation of TiO ₂ Nanowire Arrays during Visible Light Photoelectrochemical Performance by Carbon/Nitrogen Coimplantation. <i>Advanced Energy Materials</i> , 2018 , 8, 1800165	21.8	60
163	Template and silica interlayer tailorable synthesis of spindle-like multilayer Fe ₂ O ₃ /Ag/SnO ₂ ternary hybrid architectures and their enhanced photocatalytic activity. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 1113-24	9.5	60
162	Scalable integration of indium zinc oxide/photosensitive-nanowire composite thin-film transistors for transparent multicolor photodetectors array. <i>Advanced Materials</i> , 2014 , 26, 2919-24	24	57

161	Controlled synthesis of monodisperse sub-100 nm hollow SnO ₂ nanospheres: a template- and surfactant-free solution-phase route, the growth mechanism, optical properties, and application as a photocatalyst. <i>Chemistry - A European Journal</i> , 2011 , 17, 9708-19	4.8	57
160	Beehive-Inspired Macroporous SERS Probe for Cancer Detection through Capturing and Analyzing Exosomes in Plasma. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 5136-5146	9.5	54
159	Controllable synthesis of recyclable core-shell Fe ₂ O ₃ @SnO ₂ hollow nanoparticles with enhanced photocatalytic and gas sensing properties. <i>Physical Chemistry Chemical Physics</i> , 2013 , 15, 8228-36	3.6	52
158	Preparation and characterization of spindle-like Fe ₃ O ₄ mesoporous nanoparticles. <i>Nanoscale Research Letters</i> , 2011 , 6, 89	5	52
157	WSe ₂ /GeSe heterojunction photodiode with giant gate tunability. <i>Nano Energy</i> , 2018 , 49, 103-108	17.1	49
156	Wetting properties and SERS applications of ZnO/Ag nanowire arrays patterned by a screen printing method. <i>Journal of Materials Chemistry C</i> , 2016 , 4, 6371-6379	7.1	48
155	Integration of High-k Oxide on MoS ₂ by Using Ozone Pretreatment for High-Performance MoS ₂ Top-Gated Transistor with Thickness-Dependent Carrier Scattering Investigation. <i>Small</i> , 2015 , 11, 5932-8 ¹¹		48
154	Greatly reduced leakage current in BiFeO ₃ thin film by oxygen ion implantation. <i>Journal Physics D: Applied Physics</i> , 2007 , 40, 5775-5777	3	48
153	Shape-controlled iron oxide nanocrystals: synthesis, magnetic properties and energy conversion applications. <i>CrystEngComm</i> , 2016 , 18, 6303-6326	3.3	47
152	Preparation of M@BiFeO ₃ Nanocomposites (M = Ag, Au) Bowl Arrays with Enhanced Visible Light Photocatalytic Activity. <i>Journal of the American Ceramic Society</i> , 2015 , 98, 2255-2263	3.8	46
151	Non-centrosymmetric Au-SnO ₂ hybrid nanostructures with strong localization of plasmonic for enhanced photocatalysis application. <i>Nanoscale</i> , 2013 , 5, 5628-36	7.7	46
150	Fe-Doped BiOCl Nanosheets with Light-Switchable Oxygen Vacancies for Photocatalytic Nitrogen Fixation. <i>ACS Applied Energy Materials</i> , 2019 , 2, 8394-8398	6.1	45
149	In situ Oxidation and Self-Assembly Synthesis of Dumbbell-like Fe ₂ O ₃ /Ag/AgX (X = Cl, Br, I) Heterostructures with Enhanced Photocatalytic Properties. <i>ACS Sustainable Chemistry and Engineering</i> , 2016 , 4, 1521-1530	8.3	41
148	In situ Raman scattering study on a controllable plasmon-driven surface catalysis reaction on Ag nanoparticle arrays. <i>Nanotechnology</i> , 2012 , 23, 335701	3.4	41
147	Enhanced photocatalysis by coupling of anatase TiO ₂ film to triangular Ag nanoparticle island. <i>Nanoscale Research Letters</i> , 2012 , 7, 239	5	40
146	A Review of Recent Applications of Ion Beam Techniques on Nanomaterial Surface Modification: Design of Nanostructures and Energy Harvesting. <i>Small</i> , 2019 , 15, e1901820	11	38
145	Size effects of Ag nanoparticles on plasmon-induced enhancement of photocatalysis of Ag-Fe ₃ O ₄ nanocomposites. <i>Journal of Colloid and Interface Science</i> , 2014 , 427, 29-34	9.3	38
144	Exploring Bi Te Nanoplates as Versatile Catalysts for Electrochemical Reduction of Small Molecules. <i>Advanced Materials</i> , 2020 , 32, e1906477	24	37

143	One-Pot Reaction and Subsequent Annealing to Synthesis Hollow Spherical Magnetite and Maghemite Nanocages. <i>Nanoscale Research Letters</i> , 2009 , 4, 926-931	5	37
142	Size-Dependent Nickel-Based Electrocatalysts for Selective CO Reduction. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 18572-18577	16.4	37
141	Near-Infrared Light-Triggered Porous AuPd Alloy Nanoparticles To Produce Mild Localized Heat To Accelerate Bone Regeneration. <i>Journal of Physical Chemistry Letters</i> , 2019 , 10, 4185-4191	6.4	36
140	Significant Radiation Tolerance and Moderate Reduction in Thermal Transport of a Tungsten Nanofilm by Inserting Monolayer Graphene. <i>Advanced Materials</i> , 2017 , 29, 1604623	24	36
139	Large-area, well-ordered, uniform-sized bowtie nanoantenna arrays for surface enhanced Raman scattering substrate with ultra-sensitive detection. <i>Applied Physics Letters</i> , 2013 , 103, 041903	3.4	35
138	Side-Gated InO Nanowire Ferroelectric FETs for High-Performance Nonvolatile Memory Applications. <i>Advanced Science</i> , 2016 , 3, 1600078	13.6	34
137	Efficient enhancement of hydrogen production by Ag/Cu ₂ O/ZnO tandem triple-junction photoelectrochemical cell. <i>Applied Physics Letters</i> , 2015 , 106, 123901	3.4	33
136	Surface-Regulated Rhodium-Antimony Nanorods for Nitrogen Fixation. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 8066-8071	16.4	32
135	Efficiency enhancements in Ag nanoparticles-SiO ₂ -TiO ₂ sandwiched structure via plasmonic effect-enhanced light capturing. <i>Nanoscale Research Letters</i> , 2013 , 8, 73	5	32
134	Anchoring of Ag ₆ Si ₂ O ₇ nanoparticles on Fe ₂ O ₃ short nanotubes as a Z-scheme photocatalyst for improving their photocatalytic performances. <i>Dalton Transactions</i> , 2016 , 45, 12745-55	4.3	31
133	Performance Limits of the Self-Aligned Nanowire Top-Gated MoS ₂ Transistors. <i>Advanced Functional Materials</i> , 2017 , 27, 1602250	15.6	31
132	Advanced Catalysts Derived from Composition-Segregated Platinum/Nickel Nanostructures: New Opportunities and Challenges. <i>Advanced Functional Materials</i> , 2019 , 29, 1808161	15.6	30
131	Enhanced radiation tolerance in nitride multilayered nanofilms with small period-thicknesses. <i>Applied Physics Letters</i> , 2012 , 101, 153117	3.4	30
130	Ag Nanoparticles Located on Three-Dimensional Pine Tree-Like Hierarchical TiO Nanotube Array Films as High-Efficiency Plasmonic Photocatalysts. <i>Nanoscale Research Letters</i> , 2017 , 12, 54	5	29
129	Engineering embedded metal nanoparticles with ion beam technology. <i>Applied Physics A: Materials Science and Processing</i> , 2009 , 96, 317-325	2.6	29
128	Improved Thermal Stability of Graphene-Veiled Noble Metal Nanoarrays as Recyclable SERS Substrates. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 40726-40733	9.5	28
127	Obviously Angular, Cuboid-Shaped TiO ₂ Nanowire Arrays Decorated with Ag Nanoparticle as Ultrasensitive 3D Surface-Enhanced Raman Scattering Substrates. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 22711-22718	3.8	28
126	Polymer-supported bimetallic Ag@AgAu nanocomposites: synthesis and catalytic properties. <i>Chemistry - an Asian Journal</i> , 2012 , 7, 1781-8	4.5	27

125	Metal ion-mediated synthesis and shape-dependent magnetic properties of single-crystalline γ -Fe ₂ O ₃ nanoparticles. <i>CrystEngComm</i> , 2014 , 16, 5566-5572	3.3	25
124	Recent progress in perovskite-based photodetectors: the design of materials and structures. <i>Advances in Physics: X</i> , 2019 , 4, 1592709	5.1	22
123	Anion-mediated synthesis of monodisperse silver nanoparticles useful for screen printing of high-conductivity patterns on flexible substrates for printed electronics. <i>RSC Advances</i> , 2015 , 5, 9783-9797	3.7	22
122	Enhancement of third-order nonlinearity in Ag-nanoparticles-contained chalcogenide glasses. <i>Journal of Nanoparticle Research</i> , 2011 , 13, 3693-3697	2.3	22
121	Monolayer graphene on nanostructured Ag for enhancement of surface-enhanced Raman scattering stable platform. <i>Nanotechnology</i> , 2015 , 26, 125603	3.4	21
120	Active Electron Density Modulation of Co ₃ O ₄ -Based Catalysts Enhances their Oxygen Evolution Performance. <i>Angewandte Chemie</i> , 2020 , 132, 6996-7002	3.6	20
119	Rings of saturn-like nanoarrays with high number density of hot spots for surface-enhanced Raman scattering. <i>Applied Physics Letters</i> , 2014 , 105, 033515	3.4	20
118	Micro/Nanosized Nontraditional Evaporated Structures Based on Closely Packed Monolayer Binary Colloidal Crystals and Their Fine Structure Enhanced Properties. <i>Journal of Physical Chemistry C</i> , 2014 , 118, 20521-20528	3.8	20
117	A Comparative Study of the Magnetic Behavior of Single and Tubular Clustered Magnetite Nanoparticles. <i>Journal of Low Temperature Physics</i> , 2012 , 168, 306-313	1.3	20
116	High-Mobility Solution-Processed Amorphous Indium Zinc Oxide/In ₂ O ₃ Nanocrystal Hybrid Thin-Film Transistor. <i>IEEE Electron Device Letters</i> , 2013 , 34, 72-74	4.4	20
115	Ion implantation inducing nanovoids characterized by TEM and STEM. <i>Solid State Communications</i> , 2006 , 137, 362-365	1.6	20
114	Force-Induced Turn-On Persistent Room-Temperature Phosphorescence in Purely Organic Luminogen. <i>Angewandte Chemie - International Edition</i> , 2021 , 60, 12335-12340	16.4	20
113	In situ TEM observation of helium bubble evolution in V/Ag multilayer during annealing. <i>Journal of Nuclear Materials</i> , 2015 , 467, 537-543	3.3	19
112	The Study for Solution-Processed Alkali Metal-Doped Indium-Zinc Oxide Thin-Film Transistors. <i>IEEE Electron Device Letters</i> , 2016 , 37, 50-52	4.4	19
111	The different roles of contact materials between oxidation interlayer and doping effect for high performance ZnO thin film transistors. <i>Applied Physics Letters</i> , 2015 , 106, 051607	3.4	19
110	Modulating the threshold voltage of oxide nanowire field-effect transistors by a Ga ⁺ ion beam. <i>Nano Research</i> , 2014 , 7, 1691-1698	10	19
109	Controllable synthesis and catalysis application of hierarchical PS/Au core-shell nanocomposites. <i>Journal of Colloid and Interface Science</i> , 2012 , 387, 47-55	9.3	19
108	Third-order nonlinearity in Ag-nanoparticles embedded 56GeS ₂ 4Ga ₂ S ₃ 0KBr chalcogenide glasses. <i>Journal of Non-Crystalline Solids</i> , 2011 , 357, 2320-2323	3.9	19

107	Characterization of DC reactive magnetron sputtered NiO films using spectroscopic ellipsometry. <i>Applied Surface Science</i> , 2011 , 257, 5908-5912	6.7	19
106	Design of high-performance memristor cell using W-implanted SiO ₂ films. <i>Applied Physics Letters</i> , 2016 , 108, 153501	3.4	19
105	Irradiation-induced TiO ₂ nanorods for photoelectrochemical hydrogen production. <i>International Journal of Hydrogen Energy</i> , 2015 , 40, 5034-5041	6.7	18
104	Carbon and silica interlayer influence for the photocatalytic performances of spindle-like Fe ₂ O ₃ /Bi ₂ O ₃ p-n heterostructures. <i>Materials Science in Semiconductor Processing</i> , 2016 , 41, 411-419	4.3	18
103	Catalytic Application and Mechanism Studies of Argentite Chloride Coupled Ag/Au Hollow Heterostructures: Considering the Interface Between Ag/Au Bimetals. <i>Nanoscale Research Letters</i> , 2019 , 14, 35	5	18
102	Enhanced and polarization dependence of surface-enhanced Raman scattering in silver nanoparticle array-nanowire systems. <i>Applied Physics Letters</i> , 2013 , 102, 163108	3.4	18
101	Design of Enhanced Catalysts by Coupling of Noble Metals (Au,Ag) with Semiconductor SnO ₂ for Catalytic Reduction of 4-Nitrophenol. <i>Particle and Particle Systems Characterization</i> , 2016 , 33, 212-220	3.1	18
100	Synthesis and optical properties of gold nanorods with controllable morphology. <i>Journal of Physics Condensed Matter</i> , 2016 , 28, 434002	1.8	18
99	Springtail-Inspired Superamphiphobic Ordered Nanohoodoo Arrays with Quasi-Doubly Reentrant Structures. <i>Small</i> , 2020 , 16, e2000779	11	18
98	Precise Modulation of Gold Nanorods for Protecting against Malignant Ventricular Arrhythmias via Near-Infrared Neuromodulation. <i>Advanced Functional Materials</i> , 2019 , 29, 1902128	15.6	17
97	Tube-like Fe ₂ O ₃ @Ag/AgCl heterostructure: controllable synthesis and enhanced plasmonic photocatalytic activity. <i>RSC Advances</i> , 2015 , 5, 61239-61248	3.7	17
96	Efficient enhancement of solar-water-splitting by modified Z-scheme structural WO ₃ -W-Si photoelectrodes. <i>Applied Physics Letters</i> , 2014 , 105, 143902	3.4	17
95	Growth of non-polar ZnO films on a-GaN/r-Al ₂ O ₃ templates by radio-frequency magnetron sputtering. <i>Journal of Alloys and Compounds</i> , 2010 , 489, 519-522	5.7	17
94	Oxygen Vacancy-induced Electron Density Tuning of Fe ₃ O ₄ for Enhanced Oxygen Evolution Catalysis. <i>Energy and Environmental Materials</i> , 2021 , 4, 392-398	13	17
93	Competitive reaction pathway for site-selective conjugation of Raman dyes to hotspots on gold nanorods for greatly enhanced SERS performance. <i>Small</i> , 2014 , 10, 4012-9	11	16
92	Modified in situ and self-catalytic growth method for fabrication of Ag-coated nanocomposites with tailorable optical properties. <i>Journal of Nanoparticle Research</i> , 2012 , 14, 1	2.3	16
91	Design of wafer-scale uniform Au nanotip array by ion irradiation for enhanced single conductive filament resistive switching. <i>Nano Energy</i> , 2020 , 67, 104213	17.1	16
90	Ultrasensitive Au Nanooctahedron Micropinball Sensor for Mercury Ions. <i>ACS Applied Materials & Interfaces</i> , 2018 , 10, 25737-25743	9.5	15

89	. <i>IEEE Electron Device Letters</i> , 2019 , 40, 554-557	4.4	15
88	Formation of Carbonized Polystyrene Sphere/hemisphere Shell Arrays by Ion Beam Irradiation and Subsequent Annealing or Chloroform Treatment. <i>Scientific Reports</i> , 2015 , 5, 17529	4.9	14
87	Facile Fabrication of Ultrafine Hollow Silica and Magnetic Hollow Silica Nanoparticles by a Dual-Templating Approach. <i>Nanoscale Research Letters</i> , 2009 , 5, 116-123	5	14
86	Formation of aligned silver nanoparticles by ion implantation. <i>Materials Letters</i> , 2007 , 61, 4435-4437	3.3	14
85	Anionic Dopant Delocalization through p-Band Modulation to Endow Metal Oxides with Enhanced Visible-Light Photoactivity. <i>Angewandte Chemie - International Edition</i> , 2019 , 58, 16660-16667	16.4	13
84	Ultrastable Laurionite Spontaneously Encapsulates Reduced-dimensional Lead Halide Perovskites. <i>Nano Letters</i> , 2020 , 20, 2316-2325	11.5	13
83	Low Interface Trap Densities and Enhanced Performance of AlGaIn/GaN MOS High-Electron Mobility Transistors Using Thermal Oxidized Y ₂ O ₃ Interlayer. <i>IEEE Electron Device Letters</i> , 2015 , 36, 1284-1286	4.4	13
82	Side-to-side alignment of gold nanorods with polarization-free characteristic for highly reproducible surface enhanced Raman scattering. <i>Applied Physics Letters</i> , 2014 , 105, 211902	3.4	13
81	High mobility amorphous InGaZnO thin film transistor with single wall carbon nanotubes enhanced-current path. <i>Applied Physics Letters</i> , 2013 , 103, 223108	3.4	13
80	Controllable synthesis and optical properties of connected zinc oxide nanoparticles. <i>Chemistry - an Asian Journal</i> , 2010 , 5, 315-21	4.5	13
79	Size-Dependent Nickel-Based Electrocatalysts for Selective CO ₂ Reduction. <i>Angewandte Chemie</i> , 2020 , 132, 18731-18736	3.6	13
78	Oxygen vacancies enable the visible light photoactivity of chromium-implanted TiO ₂ nanowires. <i>Journal of Energy Chemistry</i> , 2021 , 55, 154-161	12	13
77	Rational design of ordered Pd-Pb nanocubes as highly active, selective and durable catalysts for solvent-free benzyl alcohol oxidation. <i>Nanoscale</i> , 2019 , 11, 5145-5150	7.7	12
76	Significantly enhanced visible light response in single TiO nanowire by nitrogen ion implantation. <i>Nanotechnology</i> , 2018 , 29, 184005	3.4	12
75	Construct Fe ²⁺ species and Au particles for significantly enhanced photoelectrochemical performance of Fe ₂ O ₃ by ion implantation. <i>Science China Materials</i> , 2018 , 61, 878-886	7.1	12
74	Enhanced radiation tolerance of nanochannel V films through defects release. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 334, 1-7	1.2	12
73	Parallel measurement of conductive and convective thermal transport of micro/nanowires based on Raman mapping. <i>Applied Physics Letters</i> , 2015 , 106, 253108	3.4	12
72	Helium release and amorphization resistance in ion irradiated nanochannel films. <i>Europhysics Letters</i> , 2014 , 106, 12001	1.6	11

71	Fabrication and properties of TiO ₂ nanofilms on different substrates by a novel and universal method of Ti-ion implantation and subsequent annealing. <i>Nanotechnology</i> , 2013 , 24, 255603	3.4	11
70	Size-dependent radiation tolerance and corrosion resistance in ion irradiated CrN/AlTiN nanofilms. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015 , 342, 137-143	1.2	10
69	Formation of TiO ₂ nanorods by ion irradiation. <i>Journal of Applied Physics</i> , 2014 , 115, 184306	2.5	10
68	Fabrication of single-crystal ZnO film by Zn ion implantation and subsequent annealing. <i>Nanotechnology</i> , 2007 , 18, 285609	3.4	10
67	Morphology effect of polythiophene catalysts on photo-degradation of methylene blue. <i>RSC Advances</i> , 2016 , 6, 74968-74972	3.7	10
66	Recent progress in the fabrication of SERS substrates based on the arrays of polystyrene nanospheres. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016 , 59, 1	3.6	9
65	Flexible cation-based threshold selector for resistive switching memory integration. <i>Science China Information Sciences</i> , 2018 , 61, 1	3.4	9
64	Controlling the growth of ZnO quantum dots embedded in silica by Zn/F sequential ion implantation and subsequent annealing. <i>Nanotechnology</i> , 2008 , 19, 155610	3.4	9
63	Anisotropic Low-Dimensional Materials for Polarization-Sensitive Photodetectors: From Materials to Devices. <i>Advanced Optical Materials</i> , 2102436	8.1	9
62	Design of high performance MoS ₂ -based non-volatile memory via ion beam defect engineering. <i>2D Materials</i> , 2019 , 6, 034002	5.9	8
61	Controlled preparation of hollow SnO ₂ @M (M = Au, Ag) heterostructures through template-assist method for enhanced photocatalysis. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015 , 482, 276-282	5.1	8
60	High performance amorphous ZnMgO/carbon nanotube composite thin-film transistors with a tunable threshold voltage. <i>Nanoscale</i> , 2013 , 5, 2830-4	7.7	8
59	Flammable gases produced by TiO ₂ nanoparticles under magnetic stirring in water. <i>Friction</i> , 1	5.6	8
58	Sputtering of silicon nanopowders by an argon cluster ion beam. <i>Beilstein Journal of Nanotechnology</i> , 2019 , 10, 135-143	3	7
57	Controlling Injection Barriers for Ambipolar 2D Semiconductors via Quasi-van der Waals Contacts. <i>Advanced Science</i> , 2019 , 6, 1801841	13.6	7
56	Surface-Regulated Rhodium-Antimony Nanorods for Nitrogen Fixation. <i>Angewandte Chemie</i> , 2020 , 132, 8143-8148	3.6	7
55	Tunable Electrical Properties in High-Valent Transition-Metal-Doped ZnO Thin-Film Transistors. <i>IEEE Electron Device Letters</i> , 2014 , 35, 759-761	4.4	7
54	Size control and magnetic properties of single layer monodisperse Ni nanoparticles prepared by magnetron sputtering. <i>Journal of Materials Science</i> , 2012 , 47, 508-513	4.3	7

53	Fabrication and optical properties of controlled Ag nanostructures for plasmonic applications. <i>Journal of Applied Physics</i> , 2013 , 114, 083523	2.5	7
52	Structure and Growth Mechanism of V/Ag Multilayers with Different Periodic Thickness Fabricated by Magnetron Sputtering Deposition. <i>Journal of Materials Science and Technology</i> , 2014 , 30, 1012-1019	9.1	7
51	Spindle-like alpha-Fe ₂ O ₃ embedded with TiO ₂ nanocrystalline: ion implantation preparation and enhanced magnetic properties. <i>Journal of Nanoscience and Nanotechnology</i> , 2013 , 13, 5428-33	1.3	7
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