Piedong Yang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/9478888/publications.pdf

Version: 2024-02-01

269	100,431	354	559
papers	citations	139 h-index	270 g-index

276	276	276	79275
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Room-Temperature Ultraviolet Nanowire Nanolasers. Science, 2001, 292, 1897-1899.	6.0	8,567
2	Nanowire dye-sensitized solar cells. Nature Materials, 2005, 4, 455-459.	13.3	5,232
3	Enhanced thermoelectric performance of rough silicon nanowires. Nature, 2008, 451, 163-167.	13.7	3,721
4	Highly Crystalline Multimetallic Nanoframes with Three-Dimensional Electrocatalytic Surfaces. Science, 2014, 343, 1339-1343.	6.0	2,376
5	Shape Control of Colloidal Metal Nanocrystals. Small, 2008, 4, 310-325.	5.2	2,205
6	Covalent organic frameworks comprising cobalt porphyrins for catalytic CO ₂ reduction in water. Science, 2015, 349, 1208-1213.	6.0	2,046
7	Light Trapping in Silicon Nanowire Solar Cells. Nano Letters, 2010, 10, 1082-1087.	4.5	2,038
8	Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays. Angewandte Chemie - International Edition, 2003, 42, 3031-3034.	7.2	1,562
9	Nanowire photonics. Nature Photonics, 2009, 3, 569-576.	15.6	1,548
10	Thermal conductivity of individual silicon nanowires. Applied Physics Letters, 2003, 83, 2934-2936.	1.5	1,536
11	General Route to Vertical ZnO Nanowire Arrays Using Textured ZnO Seeds. Nano Letters, 2005, 5, 1231-1236.	4.5	1,382
12	Thermally stable Pt/mesoporous silica coreâ€“shell nanocatalysts for high-temperature reactions. Nature Materials, 2009, 8, 126-131.	13.3	1,372
13	Semiconductor Nanowires for Energy Conversion. Chemical Reviews, 2010, 110, 527-546.	23.0	1,317
14	SEMICONDUCTOR NANOWIRES AND NANOTUBES. Annual Review of Materials Research, 2004, 34, 83-122.	4.3	1,304
15	Langmuirâ€“Blodgett Silver Nanowire Monolayers for Molecular Sensing Using Surface-Enhanced Raman Spectroscopy. Nano Letters, 2003, 3, 1229-1233.	4.5	1,267
16	Atomically thin two-dimensional organic-inorganic hybrid perovskites. Science, 2015, 349, 1518-1521.	6.0	1,159
17	Shaping binary metal nanocrystals through epitaxial seeded growth. Nature Materials, 2007, 6, 692-697.	13.3	1,156
18	Single gallium nitride nanowire lasers. Nature Materials, 2002, 1, 106-110.	13.3	1,144

#	Article	IF	Citations
19	Synergistic geometric and electronic effects for electrochemical reduction of carbon dioxide using goldâ€“copper bimetallic nanoparticles. Nature Communications, 2014, 5, 4948.	5.8	1,062
20	Highly Luminescent Colloidal Nanoplates of Perovskite Cesium Lead Halide and Their Oriented Assemblies. Journal of the American Chemical Society, 2015, 137, 16008-16011.	6.6	1,004
21	Direct Observation of Vaporâ€'Liquidâ€'Solid Nanowire Growth. Journal of the American Chemical Society, 2001, 123, 3165-3166.	6.6	980
22	Metalâ€“Organic Frameworks for Electrocatalytic Reduction of Carbon Dioxide. Journal of the American Chemical Society, 2015, 137, 14129-14135.	6.6	966
23	Block-by-Block Growth of Single-Crystalline Si/SiGe Superlattice Nanowires. Nano Letters, 2002, 2, 83-86.	4.5	942
24	Platonic Gold Nanocrystals. Angewandte Chemie - International Edition, 2004, 43, 3673-3677.	7.2	879
25	Nanoribbon Waveguides for Subwavelength Photonics Integration. Science, 2004, 305, 1269-1273.	6.0	879
26	Solution-Phase Synthesis of Cesium Lead Halide Perovskite Nanowires. Journal of the American Chemical Society, 2015, 137, 9230-9233.	6.6	861
27	Designing materials for electrochemical carbon dioxide recycling. Nature Catalysis, 2019, 2, 648-658.	16.1	838
28	Platinum Nanoparticle Shape Effects on Benzene Hydrogenation Selectivity. Nano Letters, 2007, 7, 3097-3101.	4.5	811
29	Photochemical Sensing of NO2 with SnO2 Nanoribbon Nanosensors at Room Temperature This work was supported by the Camille and Henry Dreyfus Foundation, 3M Corporation, the National Science Foundation, and the University of California, Berkeley. P.Y. is an Alfred P. Sloan Research Fellow. Work at the Lawrence Berkeley National Laboratory was supported by the Office of Science, Basic Energy Sciences, Division of Materials Science of the US Department of Energy. We thank the National Center for Electron Microsc. Angewandte Chemie - International Edition, 2002, 41, 2405.	7.2	785
30	Self-photosensitization of nonphotosynthetic bacteria for solar-to-chemical production. Science, 2016, 351, 74-77.	6.0	770
31	25th Anniversary Article: Semiconductor Nanowires â€“ Synthesis, Characterization, and Applications. Advanced Materials, 2014, 26, 2137-2184.	11.1	759
32	Catalyst electro-redeposition controls morphology and oxidation state for selective carbon dioxide reduction. Nature Catalysis, 2018, 1, 103-110.	16.1	737
33	Silicon Vertically Integrated Nanowire Field Effect Transistors. Nano Letters, 2006, 6, 973-977.	4.5	730
34	Semiconductor Nanowire: Whatâ€™s Next?. Nano Letters, 2010, 10, 1529-1536.	4.5	717
35	State of the Art and Prospects for Halide Perovskite Nanocrystals. ACS Nano, 2021, 15, 10775-10981.	7.3	705
36	Polyhedral Silver Nanocrystals with Distinct Scattering Signatures. Angewandte Chemie - International Edition, 2006, 45, 4597-4601.	7.2	693

#	Article	IF	Citations
37	Lasing in robust cesium lead halide perovskite nanowires. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1993-1998.	3.3	668
38	Simultaneously Efficient Light Absorption and Charge Separation in WO₃/BiVO₄ Core/Shell Nanowire Photoanode for Photoelectrochemical Water Oxidation. Nano Letters, 2014, 14, 1099-1105.	4.5	652
39	Giant piezoresistance effect in silicon nanowires. Nature Nanotechnology, 2006, 1, 42-46.	15.6	651
40	Solution-Grown Zinc Oxide Nanowires. Inorganic Chemistry, 2006, 45, 7535-7543.	1.9	647
41	Thermochromic halide perovskite solar cells. Nature Materials, 2018, 17, 261-267.	13.3	630
42	Morphological Control of Catalytically Active Platinum Nanocrystals. Angewandte Chemie - International Edition, 2006, 45, 7824-7828.	7.2	608
43	Anisotropic Etching of Silver Nanoparticles for Plasmonic Structures Capable of Single-Particle SERS. Journal of the American Chemical Society, 2010, 132, 268-274.	6.6	584
44	Langmuirâ"Blodgett Nanorod Assembly. Journal of the American Chemical Society, 2001, 123, 4360-4361.	6.6	578
45	Dendritic Nanowire Ultraviolet Laser Array. Journal of the American Chemical Society, 2003, 125, 4728-4729.	6.6	577
46	Complete composition tunability of InGaN nanowires using a combinatorial approach. Nature Materials, 2007, 6, 951-956.	13.3	576
47	Tunable plasmonic lattices of silver nanocrystals. Nature Nanotechnology, 2007, 2, 435-440.	15.6	572
48	ZnO Nanowire Transistors. Journal of Physical Chemistry B, 2005, 109, 9-14.	1.2	561
49	Artificial Photosynthesis for Sustainable Fuel and Chemical Production. Angewandte Chemie - International Edition, 2015, 54, 3259-3266.	7.2	550
50	Tunable nanowire nonlinear optical probe. Nature, 2007, 447, 1098-1101.	13.7	544
51	Electrodeposited Cobalt-Sulfide Catalyst for Electrochemical and Photoelectrochemical Hydrogen Generation from Water. Journal of the American Chemical Society, 2013, 135, 17699-17702.	6.6	540
52	Self-assembly of uniform polyhedral silver nanocrystals into densest packings and exoticÂsuperlattices. Nature Materials, 2012, 11, 131-137.	13.3	539
53	Sub-Two Nanometer Single Crystal Au Nanowires. Nano Letters, 2008, 8, 2041-2044.	4.5	538
54	High Density n-Si/n-TiO₂Core/Shell Nanowire Arrays with Enhanced Photoactivity. Nano Letters, 2009, 9, 410-415.	4.5	535

#	Article	IF	Citations
55	Electrochemical Activation of CO₂ through Atomic Ordering Transformations of AuCu Nanoparticles. Journal of the American Chemical Society, 2017, 139, 8329-8336.	6.6	529
56	Plasmon-Enhanced Photocatalytic CO₂ Conversion within Metalâ€“Organic Frameworks under Visible Light. Journal of the American Chemical Society, 2017, 139, 356-362.	6.6	511
57	Pt Nanocrystals:Â Shape Control and Langmuirâ^'Blodgett Monolayer Formation. Journal of Physical Chemistry B, 2005, 109, 188-193.	1.2	510
58	A Fully Integrated Nanosystem of Semiconductor Nanowires for Direct Solar Water Splitting. Nano Letters, 2013, 13, 2989-2992.	4.5	506
59	Hydrothermal Growth of Mesoporous SBA-15 Silica in the Presence of PVP-Stabilized Pt Nanoparticles:â€‰ Synthesis, Characterization, and Catalytic Properties. Journal of the American Chemical Society, 2006, 128, 3027-3037.	6.6	493
60	Solution-processed coreâ€“shell nanowires for efficient photovoltaic cells. Nature Nanotechnology, 2011, 6, 568-572.	15.6	492
61	Surface and Interface Control in Nanoparticle Catalysis. Chemical Reviews, 2020, 120, 1184-1249.	23.0	492
62	Interfacing Silicon Nanowires with Mammalian Cells. Journal of the American Chemical Society, 2007, 129, 7228-7229.	6.6	490
63	Bismuth Nanotubes:Â A Rational Low-Temperature Synthetic Route. Journal of the American Chemical Society, 2001, 123, 9904-9905.	6.6	481
64	Sub-10 nm Platinum Nanocrystals with Size and Shape Control: Catalytic Study for Ethylene and Pyrrole Hydrogenation. Journal of the American Chemical Society, 2009, 131, 5816-5822.	6.6	480
65	Copper nanoparticle ensembles for selective electroreduction of CO ₂ to C ₂ â€“C ₃ products. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10560-10565.	3.3	479
66	Nanocrystal bilayer for tandem catalysis. Nature Chemistry, 2011, 3, 372-376.	6.6	466
67	Crystallographic alignment of high-density gallium nitride nanowire arrays. Nature Materials, 2004, 3, 524-528.	13.3	454
68	Langmuirâ^'Blodgettry of Nanocrystals and Nanowires. Accounts of Chemical Research, 2008, 41, 1662-1673.	7.6	429
69	Single Nanowire Lasers. Journal of Physical Chemistry B, 2001, 105, 11387-11390.	1.2	425
70	Nanowire photonics. Materials Today, 2006, 9, 36-45.	8.3	408
71	Optical trapping and integration of semiconductor nanowire assemblies in water. Nature Materials, 2006, 5, 97-101.	13.3	399
72	Encapsulation of Perovskite Nanocrystals into Macroscale Polymer Matrices: Enhanced Stability and Polarization. ACS Applied Materials & Interfaces, 2016, 8, 35523-35533.	4.0	398

#	Article	IF	Citations
73	Synthesis of Composition Tunable and Highly Luminescent Cesium Lead Halide Nanowires through Anion-Exchange Reactions. Journal of the American Chemical Society, 2016, 138, 7236-7239.	6.6	397
74	Sulfur-Modulated Tin Sites Enable Highly Selective Electrochemical Reduction of CO2 to Formate. Joule, 2017, 1, 794-805.	11.7	390
75	Ligand Mediated Transformation of Cesium Lead Bromide Perovskite Nanocrystals to Lead Depleted Cs₄PbBr₆ Nanocrystals. Journal of the American Chemical Society, 2017, 139, 5309-5312.	6.6	389
76	Very High Frequency Silicon Nanowire Electromechanical Resonators. Nano Letters, 2007, 7, 1953-1959.	4.5	381
77	Oligo- and Polythiophene/ZnO Hybrid Nanowire Solar Cells. Nano Letters, 2010, 10, 334-340.	4.5	381
78	Photoelectrochemical Properties of TiO₂ Nanowire Arrays: A Study of the Dependence on Length and Atomic Layer Deposition Coating. ACS Nano, 2012, 6, 5060-5069.	7.3	378
79	Structure-Sensitive CO₂ Electroreduction to Hydrocarbons on Ultrathin 5-fold Twinned Copper Nanowires. Nano Letters, 2017, 17, 1312-1317.	4.5	363
80	Metalorganic Chemical Vapor Deposition Route to GaN Nanowires with Triangular Cross Sections. Nano Letters, 2003, 3, 1063-1066.	4.5	362
81	Nanowireâ€“Bacteria Hybrids for Unassisted Solar Carbon Dioxide Fixation to Value-Added Chemicals. Nano Letters, 2015, 15, 3634-3639.	4.5	362
82	Bacteria photosensitized by intracellular gold nanoclusters for solar fuel production. Nature Nanotechnology, 2018, 13, 900-905.	15.6	362
83	Thermal conductivity of Si/SiGe superlattice nanowires. Applied Physics Letters, 2003, 83, 3186-3188.	1.5	355
84	Nanowire-Based All-Oxide Solar Cells. Journal of the American Chemical Society, 2009, 131, 3756-3761.	6.6	345
85	Growth and Anion Exchange Conversion of CH₃NH₃PbX₃ Nanorod Arrays for Light-Emitting Diodes. Nano Letters, 2015, 15, 5519-5524.	4.5	342
86	A Molecular Surface Functionalization Approach to Tuning Nanoparticle Electrocatalysts for Carbon Dioxide Reduction. Journal of the American Chemical Society, 2016, 138, 8120-8125.	6.6	340
87	Semiconductor nanowire lasers. Nature Reviews Materials, 2016, 1, .	23.3	332
88	Large-Scale Synthesis of Transition-Metal-Doped TiO₂ Nanowires with Controllable Overpotential. Journal of the American Chemical Society, 2013, 135, 9995-9998.	6.6	326
89	Interfacing natureâ€™s catalytic machinery with synthetic materials for semi-artificial photosynthesis. Nature Nanotechnology, 2018, 13, 890-899.	15.6	322
90	Thermal Conductance of Thin Silicon Nanowires. Physical Review Letters, 2008, 101, 105501.	2.9	316

#	Article	IF	Citations
91	Semiconductor Nanowires for Artificial Photosynthesis. Chemistry of Materials, 2014, 26, 415-422.	3.2	314
92	Roomâ€Temperature Formation of Hollow Cu₂O Nanoparticles. Advanced Materials, 2010, 22, 1910-1914.	11.1	308
93	Nanowire-based single-cell endoscopy. Nature Nanotechnology, 2012, 7, 191-196.	15.6	290
94	Quantifying Surface Roughness Effects on Phonon Transport in Silicon Nanowires. Nano Letters, 2012, 12, 2475-2482.	4.5	285
95	Two-dimensional halide perovskite lateral epitaxial heterostructures. Nature, 2020, 580, 614-620.	13.7	284
96	Self-Organized GaN Quantum Wire UV Lasers. Journal of Physical Chemistry B, 2003, 107, 8721-8725.	1.2	281
97	Bandgap engineering in semiconductor alloy nanomaterials with widely tunable compositions. Nature Reviews Materials, 2017, 2, .	23.3	279
98	The Making and Breaking of Lead-Free Double Perovskite Nanocrystals of Cesium Silverâ€“Bismuth Halide Compositions. Nano Letters, 2018, 18, 3502-3508.	4.5	265
99	Energy and environment policy case for a global project on artificial photosynthesis. Energy and Environmental Science, 2013, 6, 695.	15.6	264
100	TiO₂/BiVO₄ Nanowire Heterostructure Photoanodes Based on Type II Band Alignment. ACS Central Science, 2016, 2, 80-88.	5.3	263
101	Tunable Cu Enrichment Enables Designer Syngas Electrosynthesis from CO₂. Journal of the American Chemical Society, 2017, 139, 9359-9363.	6.6	260
102	Surfaceâ€Enhanced Raman Spectroscopy for Trace Arsenic Detection in Contaminated Water. Angewandte Chemie - International Edition, 2008, 47, 6456-6460.	7.2	258
103	Atomic Layer Deposition of Platinum Catalysts on Nanowire Surfaces for Photoelectrochemical Water Reduction. Journal of the American Chemical Society, 2013, 135, 12932-12935.	6.6	256
104	Towards systems materials engineering. Nature Materials, 2012, 11, 560-563.	13.3	255
105	Electron delocalization and charge mobility as a function of reduction in a metalâ€“organic framework. Nature Materials, 2018, 17, 625-632.	13.3	255
106	Dendrimer Templated Synthesis of One Nanometer Rh and Pt Particles Supported on Mesoporous Silica: Catalytic Activity for Ethylene and Pyrrole Hydrogenation. Nano Letters, 2008, 8, 2027-2034.	4.5	254
107	Ultralow thermal conductivity in all-inorganic halide perovskites. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 8693-8697.	3.3	246
108	Anisotropic phase segregation and migration of Pt in nanocrystals en route to nanoframe catalysts. Nature Materials, 2016, 15, 1188-1194.	13.3	244

#	Article	IF	Citations
109	Cu-Ag Tandem Catalysts for High-Rate CO2 Electrolysis toward Multicarbons. Joule, 2020, 4, 1688-1699.	11.7	239
110	Photosynthetic semiconductor biohybrids for solar-driven biocatalysis. Nature Catalysis, 2020, 3, 245-255.	16.1	237
111	Hybrid bioinorganic approach to solar-to-chemical conversion. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11461-11466.	3.3	234
112	Ultrathin Colloidal Cesium Lead Halide Perovskite Nanowires. Journal of the American Chemical Society, 2016, 138, 13155-13158.	6.6	234
113	Self-Transducing Silicon Nanowire Electromechanical Systems at Room Temperature. Nano Letters, 2008, 8, 1756-1761.	4.5	233
114	Highly Selective Synthesis of Catalytically Active Monodisperse Rhodium Nanocubes. Journal of the American Chemical Society, 2008, 130, 5868-5869.	6.6	226
115	Optical routing and sensing with nanowire assemblies. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 7800-7805.	3.3	224
116	The Chemistry and Physics of Semiconductor Nanowires. MRS Bulletin, 2005, 30, 85-91.	1.7	217
117	Si/InGaN Core/Shell Hierarchical Nanowire Arrays and their Photoelectrochemical Properties. Nano Letters, 2012, 12, 1678-1682.	4.5	209
118	Transition-Metal Doped Zinc Oxide Nanowires. Angewandte Chemie - International Edition, 2006, 45, 420-423.	7.2	201
119	Atomic Structure of Pt₃Ni Nanoframe Electrocatalysts by in Situ X-ray Absorption Spectroscopy. Journal of the American Chemical Society, 2015, 137, 15817-15824.	6.6	197
120	Shape, Size, and Assembly Control of PbTe Nanocrystals. Journal of the American Chemical Society, 2007, 129, 9864-9865.	6.6	192
121	Tandem Catalysis for CO₂ Hydrogenation to C₂â€“C₄ Hydrocarbons. Nano Letters, 2017, 17, 3798-3802.	4.5	183
122	Self-Organized Silver Nanoparticles for Three-Dimensional Plasmonic Crystals. Nano Letters, 2008, 8, 4033-4038.	4.5	181
123	Vertical nanowire array-based light emitting diodes. Nano Research, 2008, 1, 123-128.	5.8	179
124	Synthesis of Ultrathin Copper Nanowires Using Tris(trimethylsilyl)silane for High-Performance and Low-Haze Transparent Conductors. Nano Letters, 2015, 15, 7610-7615.	4.5	179
125	Semiconductor Nanowire Ring Resonator Laser. Physical Review Letters, 2006, 96, 143903.	2.9	178
126	Spatially resolved multicolor CsPbX ₃ nanowire heterojunctions via anion exchange. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 7216-7221.	3.3	178

#	Article	IF	Citations
127	Nanowires for Photonics. Chemical Reviews, 2019, 119, 9153-9169.	23.0	173
128	Nanofluidic Diodes Based on Nanotube Heterojunctions. Nano Letters, 2009, 9, 3820-3825.	4.5	169
129	Control of Architecture in Rhombic Dodecahedral Ptâ€“Ni Nanoframe Electrocatalysts. Journal of the American Chemical Society, 2017, 139, 11678-11681.	6.6	166
130	Three-Dimensional Phthalocyanine Metal-Catecholates for High Electrochemical Carbon Dioxide Reduction. Journal of the American Chemical Society, 2019, 141, 17081-17085.	6.6	165
131	Dopant profiling and surface analysis of silicon nanowires using capacitanceâ€“voltage measurements. Nature Nanotechnology, 2009, 4, 311-314.	15.6	159
132	Nanowire Photoelectrochemistry. Chemical Reviews, 2019, 119, 9221-9259.	23.0	158
133	One-Step Patterning of Aligned Nanowire Arrays by Programmed Dip Coating. Angewandte Chemie - International Edition, 2007, 46, 2414-2417.	7.2	156
134	Direct photonicâ€“plasmonic coupling and routing in single nanowires. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 21045-21050.	3.3	156
135	Solution-Processed Copper/Reduced-Graphene-Oxide Core/Shell Nanowire Transparent Conductors. ACS Nano, 2016, 10, 2600-2606.	7.3	155
136	Intrinsic anion diffusivity in lead halide perovskites is facilitated by a soft lattice. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 11929-11934.	3.3	153
137	High-Performance Ptâ€“Co Nanoframes for Fuel-Cell Electrocatalysis. Nano Letters, 2020, 20, 1974-1979.	4.5	150
138	Surfactant-Free, Large-Scale, Solutionâ€“Liquidâ€“Solid Growth of Gallium Phosphide Nanowires and Their Use for Visible-Light-Driven Hydrogen Production from Water Reduction. Journal of the American Chemical Society, 2011, 133, 19306-19309.	6.6	147
139	Cytoprotective metal-organic frameworks for anaerobic bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 10582-10587.	3.3	145
140	Electrical Characteristics and Chemical Stability of Non-Oxidized, Methyl-Terminated Silicon Nanowires. Journal of the American Chemical Society, 2006, 128, 8990-8991.	6.6	142
141	Mesoscopic Constructs of Ordered and Oriented Metalâ€“Organic Frameworks on Plasmonic Silver Nanocrystals. Journal of the American Chemical Society, 2015, 137, 2199-2202.	6.6	141
142	One-step Polyol Synthesis and Langmuirâˆ’Blodgett Monolayer Formation of Size-tunable Monodisperse Rhodium Nanocrystals with Catalytically Active (111) Surface Structures. Journal of Physical Chemistry C, 2007, 111, 12243-12253.	1.5	136
143	Polarity Switching and Transient Responses in Single Nanotube Nanofluidic Transistors. Physical Review Letters, 2005, 95, 086607.	2.9	130
144	Low-Temperature Wafer-Scale Production of ZnO Nanowire Arrays. Angewandte Chemie, 2003, 115, 3139-3142.	1.6	129

#	Article	IF	Citations
145	Excited-state vibrational dynamics toward the polaron in methylammonium lead iodide perovskite. Nature Communications, 2018, 9, 2525.	5.8	129
146	Tunable Polaron Distortions Control the Extent of Halide Demixing in Lead Halide Perovskites. Journal of Physical Chemistry Letters, 2018, 9, 3998-4005.	2.1	129
147	Structural, optical, and electrical properties of phase-controlled cesium lead iodide nanowires. Nano Research, 2017, 10, 1107-1114.	5.8	128
148	Strongly Quantum Confined Colloidal Cesium Tin Iodide Perovskite Nanoplates: Lessons for Reducing Defect Density and Improving Stability. Nano Letters, 2018, 18, 2060-2066.	4.5	128
149	Spectroscopic elucidation of energy transfer in hybrid inorganicâ€“biological organisms for solar-to-chemical production. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 11750-11755.	3.3	125
150	Directed Assembly of Nanoparticle Catalysts on Nanowire Photoelectrodes for Photoelectrochemical CO₂ Reduction. Nano Letters, 2016, 16, 5675-5680.	4.5	125
151	Atomic Resolution Imaging of Halide Perovskites. Nano Letters, 2016, 16, 7530-7535.	4.5	125
152	Ultrathin Epitaxial Cu@Au Coreâ€“Shell Nanowires for Stable Transparent Conductors. Journal of the American Chemical Society, 2017, 139, 7348-7354.	6.6	125
153	Oriented assembly of polyhedral plasmonic nanoparticle clusters. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 6640-6645.	3.3	124
154	Close-Packed Nanowire-Bacteria Hybrids for Efficient Solar-Driven CO2 Fixation. Joule, 2020, 4, 800-811.	11.7	124
155	Investigation of phonon coherence and backscattering using silicon nanomeshes. Nature Communications, 2017, 8, 14054.	5.8	123
156	Introduction: 1D Nanomaterials/Nanowires. Chemical Reviews, 2019, 119, 8955-8957.	23.0	121
157	Synthesis of metal sulfide nanomaterials via thermal decomposition of single-source precursors. Journal of Materials Chemistry, 2010, 20, 6612.	6.7	118
158	Epitaxial Growth of InGaN Nanowire Arrays for Light Emitting Diodes. ACS Nano, 2011, 5, 3970-3976.	7.3	118
159	Cleaved-coupled nanowire lasers. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 865-869.	3.3	118
160	Physical Biology of the Materialsâ€“Microorganism Interface. Journal of the American Chemical Society, 2018, 140, 1978-1985.	6.6	115
161	Coreâ€“Shell CdSâ€“Cu₂S Nanorod Array Solar Cells. Nano Letters, 2015, 15, 4096-4101.	4.5	114
162	Cyborgian Material Design for Solar Fuel Production: The Emerging Photosynthetic Biohybrid Systems. Accounts of Chemical Research, 2017, 50, 476-481.	7.6	114

#	Article	IF	Citations
163	A Nanocube Plasmonic Sensor for Molecular Binding on Membrane Surfaces. Nano Letters, 2009, 9, 2077-2082.	4.5	111
164	Single-nanowire photoelectrochemistry. Nature Nanotechnology, 2016, 11, 609-612.	15.6	111
165	Field-Effect Modulation of Seebeck Coefficient in Single PbSe Nanowires. Nano Letters, 2009, 9, 1689-1693.	4.5	110
166	Address the â€œalkalinity problemâ€•in CO2 electrolysis with catalyst design and translation. Joule, 2021, 5, 737-742.	11.7	110
167	Cysteineâ€“Cystine Photoregeneration for Oxygenic Photosynthesis of Acetic Acid from CO₂ by a Tandem Inorganicâ€“Biological Hybrid System. Nano Letters, 2016, 16, 5883-5887.	4.5	108
168	Semiconductor Nanowire Array: Potential Substrates for Photocatalysis and Photovoltaics. Topics in Catalysis, 2002, 19, 197-202.	1.3	107
169	Rich Chemistry in Inorganic Halide Perovskite Nanostructures. Advanced Materials, 2018, 30, e1802856.	11.1	106
170	Zn-Doped p-Type Gallium Phosphide Nanowire Photocathodes from a Surfactant-Free Solution Synthesis. Nano Letters, 2012, 12, 5407-5411.	4.5	105
171	Perovskite nanowireâ€“block copolymer composites with digitally programmable polarization anisotropy. Science Advances, 2019, 5, eaav8141.	4.7	103
172	Lead-free Cesium Europium Halide Perovskite Nanocrystals. Nano Letters, 2020, 20, 3734-3739.	4.5	103
173	Magnetotransport in Co-Doped ZnO Nanowires. Nano Letters, 2009, 9, 892-896.	4.5	99
174	Selective CO2 electrocatalysis at the pseudocapacitive nanoparticle/ordered-ligand interlayer. Nature Energy, 2020, 5, 1032-1042.	19.8	99
175	Electrochemically scrambled nanocrystals are catalytically active for CO ₂ -to-multicarbons. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 9194-9201.	3.3	99
176	Synthesis of Silver Nanowires with Reduced Diameters Using Benzoin-Derived Radicals to Make Transparent Conductors with High Transparency and Low Haze. Nano Letters, 2018, 18, 5329-5334.	4.5	96
177	Bacterial Recognition of Silicon Nanowire Arrays. Nano Letters, 2013, 13, 2864-2869.	4.5	92
178	Catalytic properties of Pt cluster-decorated CeO2 nanostructures. Nano Research, 2011, 4, 61-71.	5.8	91
179	Ruddlesdenâ€“Popper Phase in Two-Dimensional Inorganic Halide Perovskites: A Plausible Model and the Supporting Observations. Nano Letters, 2017, 17, 5489-5494.	4.5	90
180	Structural and spectral dynamics of single-crystalline Ruddlesden-Popper phase halide perovskite blue light-emitting diodes. Science Advances, 2020, 6, eaay4045.	4.7	88

#	Article	IF	Citations
181	MoS2-wrapped silicon nanowires for photoelectrochemical water reduction. Nano Research, 2015, 8, 281-287.	5.8	87
182	High Quantum Efficiency of Band-Edge Emission from ZnO Nanowires. Nano Letters, 2011, 11, 3792-3796.	4.5	86
183	Membrane-protein binding measured with solution-phase plasmonic nanocube sensors. Nature Methods, 2012, 9, 1189-1191.	9.0	86
184	Quantitative imaging of anion exchange kinetics in halide perovskites. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 12648-12653.	3.3	84
185	Progress in Perovskite Photocatalysis. ACS Energy Letters, 2020, 5, 2602-2604.	8.8	83
186	Insights into the Mechanism of Tandem Alkene Hydroformylation over a Nanostructured Catalyst with Multiple Interfaces. Journal of the American Chemical Society, 2016, 138, 11568-11574.	6.6	82
187	Effects of Catalyst Processing on the Activity and Stability of Ptâ€“Ni Nanoframe Electrocatalysts. ACS Nano, 2018, 12, 8697-8705.	7.3	80
188	Thermoelectric properties of p-type PbSe nanowires. Nano Research, 2009, 2, 394-399.	5.8	76
189	Lower threshold for nanowire lasers. Nature Materials, 2015, 14, 557-558.	13.3	74
190	Room-Temperature Coherent Optical Phonon in 2D Electronic Spectra of CH₃NH₃PbI₃ Perovskite as a Possible Cooling Bottleneck. Journal of Physical Chemistry Letters, 2017, 8, 3211-3215.	2.1	73
191	Absorption of Light in a Single-Nanowire Silicon Solar Cell Decorated with an Octahedral Silver Nanocrystal. Nano Letters, 2011, 11, 5189-5195.	4.5	72
192	Growth and Photoelectrochemical Energy Conversion of Wurtzite Indium Phosphide Nanowire Arrays. ACS Nano, 2016, 10, 5525-5535.	7.3	70
193	Atomic-level control of the thermoelectric properties in polytypoid nanowires. Chemical Science, 2011, 2, 706.	3.7	69
194	Gallium nitride nanowires with a metal initiated metal-organic chemical vapor deposition (MOCVD) approach. Physica Status Solidi (B): Basic Research, 2004, 241, 2775-2778.	0.7	67
195	All Inorganic Semiconductor Nanowire Mesh for Direct Solar Water Splitting. ACS Nano, 2014, 8, 11739-11744.	7.3	67
196	Phase Transitions and Anion Exchange in All-Inorganic Halide Perovskites. Accounts of Materials Research, 2020, 1, 3-15.	5.9	67
197	Probing the Local Coordination Environment for Transition Metal Dopants in Zinc Oxide Nanowires. Nano Letters, 2007, 7, 905-909.	4.5	63
198	Electrocatalytic Rate Alignment Enhances Syngas Generation. Joule, 2019, 3, 257-264.	11.7	62

#	Article	IF	Citations
199	Giant Light-Emission Enhancement in Lead Halide Perovskites by Surface Oxygen Passivation. Nano Letters, 2018, 18, 6967-6973.	4.5	59
200	Self-Assembly of Two-Dimensional Perovskite Nanosheet Building Blocks into Ordered Ruddlesdenâ€“Popper Perovskite Phase. Journal of the American Chemical Society, 2019, 141, 13028-13032.	6.6	59
201	Light-Induced Charge Transport within a Single Asymmetric Nanowire. Nano Letters, 2011, 11, 3755-3758.	4.5	57
202	Critical Role of Methylammonium Librational Motion in Methylammonium Lead Iodide (CH₃NH₃PbI₃) Perovskite Photochemistry. Nano Letters, 2017, 17, 4151-4157.	4.5	55
203	Electrostatics of nanowire transistors with triangular cross sections. Journal of Applied Physics, 2006, 99, 054310.	1.1	54
204	Gold-Nanocluster-Mediated Delivery of siRNA to Intact Plant Cells for Efficient Gene Knockdown. Nano Letters, 2021, 21, 5859-5866.	4.5	53
205	Electrical and Optical Tunability in All-Inorganic Halide Perovskite Alloy Nanowires. Nano Letters, 2018, 18, 3538-3542.	4.5	51
206	Uniform Doping of Metal Oxide Nanowires Using Solid State Diffusion. Journal of the American Chemical Society, 2014, 136, 10521-10526.	6.6	50
207	Semiconductor nanowires for photovoltaic and photoelectrochemical energy conversion. Frontiers of Physics, 2014, 9, 289-302.	2.4	49
208	Salt-Induced Self-Assembly of Bacteria on Nanowire Arrays. Nano Letters, 2014, 14, 5471-5476.	4.5	48
209	Phase-transitionâ€“induced p-n junction in single halide perovskite nanowire. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 8889-8894.	3.3	48
210	Photoelectrochemical CO₂ Reduction toward Multicarbon Products with Silicon Nanowire Photocathodes Interfaced with Copper Nanoparticles. Journal of the American Chemical Society, 2022, 144, 8002-8006.	6.6	46
211	Roadmap on semiconductorâ€“cell biointerfaces. Physical Biology, 2018, 15, 031002.	0.8	45
212	Ion Write Microthermotics: Programing Thermal Metamaterials at the Microscale. Nano Letters, 2019, 19, 3830-3837.	4.5	45
213	Pressure-induced semiconductor-to-metal phase transition of a charge-ordered indium halide perovskite. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 23404-23409.	3.3	45
214	Two-Step Patterning of Scalable All-Inorganic Halide Perovskite Arrays. ACS Nano, 2020, 14, 3500-3508.	7.3	44
215	The Interactive Dynamics of Nanocatalyst Structure and Microenvironment during Electrochemical CO₂ Conversion. Jacs Au, 2022, 2, 562-572.	3.6	44
216	Synthesis of PtCo3 polyhedral nanoparticles and evolution to Pt3Co nanoframes. Surface Science, 2016, 648, 328-332.	0.8	42

#	Article	IF	Citations
217	Liquid-like Interfaces Mediate Structural Phase Transitions in Lead Halide Perovskites. Matter, 2020, 3, 534-545.	5.0	42
218	Benzoin Radicals as Reducing Agent for Synthesizing Ultrathin Copper Nanowires. Journal of the American Chemical Society, 2017, 139, 3027-3032.	6.6	40
219	Ferroelectricity in a semiconducting all-inorganic halide perovskite. Science Advances, 2022, 8, eabj5881.	4.7	37
220	Characterization of heat transfer along a silicon nanowire using thermoreflectance technique. IEEE Nanotechnology Magazine, 2006, 5, 67-74.	1.1	36
221	Alumina-coated Ag nanocrystal monolayers as surfaceenhanced Raman spectroscopy platforms for the direct spectroscopic detection of water splitting reaction intermediates. Nano Research, 2014, 7, 132-143.	5.8	35
222	Copper(I)-Based Highly Emissive All-Inorganic Rare-Earth Halide Clusters. Matter, 2019, 1, 180-191.	5.0	35
223	Kinetics of moisture-induced phase transformation in inorganic halide perovskite. Matter, 2021, 4, 2392-2402.	5.0	34
224	Effect of Anisotropic Confinement on Electronic Structure and Dynamics of Band Edge Excitons in Inorganic Perovskite Nanowires. Journal of Physical Chemistry A, 2020, 124, 1867-1876.	1.1	33
225	Nanoparticle Assembly Induced Ligand Interactions for Enhanced Electrocatalytic CO₂ Conversion. Journal of the American Chemical Society, 2021, 143, 19919-19927.	6.6	32
226	Solar-driven carbon dioxide fixation using photosynthetic semiconductor bio-hybrids. Faraday Discussions, 2019, 215, 54-65.	1.6	30
227	Size Transformation of the Au₂₂(SG)₁₈ Nanocluster and Its Surface-Sensitive Kinetics. Journal of the American Chemical Society, 2020, 142, 11514-11520.	6.6	30
228	Room-Temperature Dynamics of Vanishing Copper Nanoparticles Supported on Silica. Nano Letters, 2017, 17, 2732-2737.	4.5	27
229	Lead halide perovskite nanowires stabilized by block copolymers for Langmuir-Blodgett assembly. Nano Research, 2020, 13, 1453-1458.	5.8	26
230	Scaling Laws of Exciton Recombination Kinetics in Low Dimensional Halide Perovskite Nanostructures. Journal of the American Chemical Society, 2020, 142, 8871-8879.	6.6	26
231	Sulfur-doped graphene anchoring of ultrafine Au25 nanoclusters for electrocatalysis. Nano Research, 2021, 14, 3509-3513.	5.8	26
232	Ultrathin Free-Standing Oxide Membranes for Electron and Photon Spectroscopy Studies of Solidâ€“Gas and Solidâ€“Liquid Interfaces. Nano Letters, 2020, 20, 6364-6371.	4.5	24
233	Efficiency enhancement of copper contaminated radial pâ€“n junction solar cells. Chemical Physics Letters, 2011, 501, 153-158.	1.2	22
234	Morphology-controlled transformation of Cu@Au core-shell nanowires into thermally stable Cu3Au intermetallic nanowires. Nano Research, 2020, 13, 2564-2569.	5.8	22

#	Article	IF	Citations
235	Liquid Sunlight: The Evolution of Photosynthetic Biohybrids. Nano Letters, 2021, 21, 5453-5456.	4.5	20
236	Heterostructured Auâ€“Ir Catalysts for Enhanced Oxygen Evolution Reaction. , 2021, 3, 1440-1447.		20
237	Templated Synthesis of Shapeâ€Controlled, Ordered TiO₂ Cage Structures. Small, 2011, 7, 2037-2040.	5.2	18
238	Semiconductor nanowire building blocks: From flux line pinning to artificial photosynthesis. MRS Bulletin, 2012, 37, 806-813.	1.7	18
239	Revealing the Phase Separation Behavior of Thermodynamically Immiscible Elements in a Nanoparticle. Nano Letters, 2021, 21, 6684-6689.	4.5	18
240	Operando Resonant Soft X-ray Scattering Studies of Chemical Environment and Interparticle Dynamics of Cu Nanocatalysts for CO₂ Electroreduction. Journal of the American Chemical Society, 2022, 144, 8927-8931.	6.6	18
241	Production of PHB From CO2-Derived Acetate With Minimal Processing Assessed for Space Biomanufacturing. Frontiers in Microbiology, 2021, 12, 700010.	1.5	17
242	Molecular insights and future frontiers in cell photosensitization for solar-driven CO2 conversion. IScience, 2021, 24, 102952.	1.9	17
243	The making of a reconfigurable semiconductor with a soft ionic lattice. Matter, 2021, 4, 3874-3896.	5.0	17
244	Interface Sensitivity in Electron/Ion Yield X-ray Absorption Spectroscopy: The TiO₂â€“H₂O Interface. Journal of Physical Chemistry Letters, 2021, 12, 10212-10217.	2.1	17
245	Lattice Dynamics and Optoelectronic Properties of Vacancy-Ordered Double Perovskite Cs₂TeX₆ (X = Cl^{â€“}, Br^{â€“}, I^{â€“}) Single Crystals. Journal of Physical Chemistry C, 2021, 125, 25126-25139.	1.5	17
246	The presence and role of the intermediary CO reservoir in heterogeneous electroreduction of CO ₂. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2201922119.	3.3	17
247	Ligand removal of Au25 nanoclusters by thermal and electrochemical treatments for selective CO2 electroreduction to CO. Journal of Chemical Physics, 2021, 155, 051101.	1.2	16
248	Ligand-Free Processable Perovskite Semiconductor Ink. Nano Letters, 2021, 21, 8856-8862.	4.5	16
249	Enhancing Biohybrid CO₂ to Multicarbon Reduction via Adapted Whole-Cell Catalysts. Nano Letters, 2022, 22, 5503-5509.	4.5	16
250	Supramolecular Assembly of Halide Perovskite Building Blocks. Journal of the American Chemical Society, 2022, 144, 12450-12458.	6.6	16
251	Metal-Coated Zinc Oxide Nanocavities. IEEE Journal of Quantum Electronics, 2011, 47, 245-251.	1.0	15
252	Synthesis and Photocatalytic Properties of Single Crystalline (Ga_{1â€x}Zn_x)(N_{1â€x}O_x) Nanotubes. Israel Journal of Chemistry, 2012, 52, 1111-1117.	1.0	15

#	Article	IF	Citations
253	Photosynthetic biohybrid coculture for tandem and tunable CO ₂ and N ₂ fixation. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, .	3.3	14
254	Solid-State Ionic Rectification in Perovskite Nanowire Heterostructures. Nano Letters, 2020, 20, 8151-8156.	4.5	12
255	Photoinduced Charge Transfer and Trapping on Single Gold Metal Nanoparticles on TiO₂. ACS Applied Materials & Interfaces, 2021, 13, 50531-50538.	4.0	12
256	Preface:â€‰ Nanowires. Inorganic Chemistry, 2006, 45, 7509-7510.	1.9	11
257	Laser-accelerated phase transformation in cesium lead iodide perovskite. Matter, 2022, 5, 1455-1465.	5.0	11
258	Individually Encapsulated Frame-in-Frame Structure. , 2020, 2, 685-690.		10
259	A New Perspective and Design Principle for Halide Perovskites: Ionic Octahedron Network (ION). Nano Letters, 2021, 21, 5415-5421.	4.5	9
260	Phase transition dynamics in one-dimensional halide perovskite crystals. MRS Bulletin, 2021, 46, 310-316.	1.7	8
261	Controlling the Phase Transition in CsPbI₃ Nanowires. Nano Letters, 2022, 22, 2437-2443.	4.5	8
262	Nature of the Electrical Double Layer on Suspended Graphene Electrodes. Journal of the American Chemical Society, 2022, 144, 13327-13333.	6.6	8
263	Chloride-Assisted Corrosion of Copper and Protection by Benzotriazole. ACS Applied Materials & Interfaces, 2022, 14, 6093-6101.	4.0	5
264	Low-Temperature Solution-Phase Growth of Silicon and Silicon-Containing Alloy Nanowires. Journal of Physical Chemistry C, 2016, 120, 20525-20529.	1.5	4
265	Nanowires for Photovoltaics and Artificial Photosynthesis. RSC Smart Materials, 2014, , 277-311.	0.1	2
266	Gallium nitride nanowires with a metal initiated metal-organic chemical vapor deposition (MOCVD) approach[phys. stat. sol. (b)241, 2775 (2004)]. Physica Status Solidi (B): Basic Research, 2005, 242, 763-763.	0.7	1
267	On the occasion of the 80th birthday of Professor Yitai Qian: Celebrating 60 years of innovation in solid-state chemistry and nanoscience. Nano Research, 2021, 14, 3337-3342.	5.8	1
268	Phase transition dynamics in one-dimensional halide perovskite crystals. MRS Bulletin, 0, , 1-7.	1.7	1
269	SINANO 10th Anniversary Special Issue. Small, 2016, 12, 4920-4921.	5.2	0