Johnny C Ho

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/8617683/publications.pdf

Version: 2024-02-01

231 papers	14,941 citations	17440 63 h-index	21540 114 g-index
238 all docs	238 docs citations	238 times ranked	17886 citing authors

#	Article	IF	Citations
1	Nanowire active-matrix circuitry for low-voltage macroscale artificial skin. Nature Materials, 2010, 9, 821-826.	27.5	1,162
2	Three-dimensional nanopillar-array photovoltaics on low-cost and flexible substrates. Nature Materials, 2009, 8, 648-653.	27.5	997
3	Wafer-Scale Assembly of Highly Ordered Semiconductor Nanowire Arrays by Contact Printing. Nano Letters, 2008, 8, 20-25.	9.1	542
4	Recent advances in layered double hydroxide electrocatalysts for the oxygen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 5069-5089.	10.3	422
5	Toward the Development of Printable Nanowire Electronics and Sensors. Advanced Materials, 2009, 21, 3730-3743.	21.0	363
6	Diameter-Dependent Electron Mobility of InAs Nanowires. Nano Letters, 2009, 9, 360-365.	9.1	353
7	Controlled nanoscale doping of semiconductors via molecular monolayers. Nature Materials, 2008, 7, 62-67.	27.5	311
8	Interface Engineering for Highâ€Performance Topâ€Gated MoS₂ Fieldâ€Effect Transistors. Advanced Materials, 2014, 26, 6255-6261.	21.0	272
9	Hierarchical Nanostructures: Design for Sustainable Water Splitting. Advanced Energy Materials, 2017, 7, 1700559.	19.5	247
10	Single InAs Nanowire Room-Temperature Near-Infrared Photodetectors. ACS Nano, 2014, 8, 3628-3635.	14.6	238
11	Large-scale, heterogeneous integration of nanowire arrays for image sensor circuitry. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11066-11070.	7.1	233
12	Effects of electron concentration on the optical absorption edge of InN. Applied Physics Letters, 2004, 84, 2805-2807.	3.3	221
13	Modulating electronic structure of CoP electrocatalysts towards enhanced hydrogen evolution by Ce chemical doping in both acidic and basic media. Nano Energy, 2017, 38, 290-296.	16.0	212
14	Insight into the electrochemical activation of carbon-based cathodes for hydrogen evolution reaction. Journal of Materials Chemistry A, 2015, 3, 13080-13086.	10.3	198
15	Hierarchical NiMo-based 3D electrocatalysts for highly-efficient hydrogen evolution in alkaline conditions. Nano Energy, 2016, 27, 247-254.	16.0	196
16	Wafer-scale synthesis of monolayer WS2 for high-performance flexible photodetectors by enhanced chemical vapor deposition. Nano Research, 2018, 11, 3371-3384.	10.4	190
17	High-Index Faceted Porous Co₃O₄ Nanosheets with Oxygen Vacancies for Highly Efficient Water Oxidation. ACS Applied Materials & Interfaces, 2018, 10, 7079-7086.	8.0	179
18	Anomalous and Highly Efficient InAs Nanowire Phototransistors Based on Majority Carrier Transport at Room Temperature. Advanced Materials, 2014, 26, 8203-8209.	21.0	168

#	Article	IF	Citations
19	High-Responsivity Graphene/InAs Nanowire Heterojunction Near-Infrared Photodetectors with Distinct Photocurrent On/Off Ratios. Small, 2015, 11, 936-942.	10.0	166
20	Hydrogen gas sensor based on metal oxide nanoparticles decorated graphene transistor. Nanoscale, 2015, 7, 10078-10084.	5.6	163
21	Wafer-Scale, Sub-5 nm Junction Formation by Monolayer Doping and Conventional Spike Annealing. Nano Letters, 2009, 9, 725-730.	9.1	148
22	Light Management with Nanostructures for Optoelectronic Devices. Journal of Physical Chemistry Letters, 2014, 5, 1479-1495.	4.6	147
23	Regulating the surface of nanoceria and its applications in heterogeneous catalysis. Surface Science Reports, 2018, 73, 1-36.	7.2	141
24	Comprehensive Understanding of the Spatial Configurations of CeO₂ in NiO for the Electrocatalytic Oxygen Evolution Reaction: Embedded or Surfaceâ€Loaded. Advanced Functional Materials, 2018, 28, 1706056.	14.9	141
25	Two-dimensional perovskite materials: From synthesis to energy-related applications. Materials Today Energy, 2019, 11, 61-82.	4.7	133
26	Rational Design of Sub-Parts per Million Specific Gas Sensors Array Based on Metal Nanoparticles Decorated Nanowire Enhancement-Mode Transistors. Nano Letters, 2013, 13, 3287-3292.	9.1	132
27	Simple and cost effective fabrication of 3D porous coreâ€“shell Ni nanochains@NiFe layered double hydroxide nanosheet bifunctional electrocatalysts for overall water splitting. Journal of Materials Chemistry A, 2019, 7, 21722-21729.	10.3	129
28	Highâ€Sensitivity Floatingâ€Gate Phototransistors Based on WS₂ and MoS₂. Advanced Functional Materials, 2016, 26, 6084-6090.	14.9	124
29	Highly formaldehyde-sensitive, transition-metal doped ZnO nanorods prepared by plasma-enhanced chemical vapor deposition. Sensors and Actuators B: Chemical, 2012, 169, 74-80.	7.8	122
30	Large scale, highly ordered assembly of nanowire parallel arrays by differential roll printing. Applied Physics Letters, 2007, 91, .	3.3	117
31	Largeâ€Scale Synthesis of Freestanding Layerâ€Structured PbI₂ and MAPbI₃ Nanosheets for Highâ€Performance Photodetection. Advanced Materials, 2017, 29, 1702759.	21.0	111
32	Highâ€Performance Ferroelectric Polymer Sideâ€Gated CdS Nanowire Ultraviolet Photodetectors. Advanced Functional Materials, 2016, 26, 7690-7696.	14.9	107
33	Rational Design of Inverted Nanopencil Arrays for Cost-Effective, Broadband, and Omnidirectional Light Harvesting. ACS Nano, 2014, 8, 3752-3760.	14.6	106
34	Enhancing Performance of a GaAs/AlGaAs/GaAs Nanowire Photodetector Based on the Two-Dimensional Electronâ€“Hole Tube Structure. Nano Letters, 2020, 20, 2654-2659.	9.1	106
35	Surfactant-assisted chemical vapour deposition of high-performance small-diameter GaSb nanowires. Nature Communications, 2014, 5, 5249.	12.8	102
36	Floating Gate Memory-based Monolayer MoS₂Transistor with Metal Nanocrystals Embedded in the Gate Dielectrics. Small, 2015, 11, 208-213.	10.0	102

#	Article	IF	Citations
37	Semi-solid and solid frustrated Lewis pair catalysts. Chemical Society Reviews, 2018, 47, 5541-5553.	38.1	102
38	High-Performance Near-Infrared Photodetectors Based on p-Type SnX (X = S, Se) Nanowires Grown via Chemical Vapor Deposition. ACS Nano, 2018, 12, 7239-7245.	14.6	101
39	Area-Selective Atomic Layer Deposition: Conformal Coating, Subnanometer Thickness Control, and Smart Positioning. ACS Nano, 2015, 9, 8651-8654.	14.6	93
40	Direct Vaporâ€“Liquidâ€“Solid Synthesis of All-Inorganic Perovskite Nanowires for High-Performance Electronics and Optoelectronics. ACS Nano, 2019, 13, 6060-6070.	14.6	93
41	Highly active and enhanced photocatalytic silicon nanowire arrays. Nanoscale, 2011, 3, 3269.	5.6	92
42	On-Nanowire Axial Heterojunction Design for High-Performance Photodetectors. ACS Nano, 2016, 10, 8474-8481.	14.6	88
43	Flexible Quasiâ€2D Perovskite/IGZO Phototransistors for Ultrasensitive and Broadband Photodetection. Advanced Materials, 2020, 32, e1907527.	21.0	88
44	Surfaceâ€Guided Formation of Amorphous Mixedâ€Metal Oxyhydroxides on Ultrathin MnO₂ Nanosheet Arrays for Efficient Electrocatalytic Oxygen Evolution. Advanced Energy Materials, 2020, 10, 2001059.	19.5	87
45	Synthesis and Characterizations of Ternary InGaAs Nanowires by a Two-Step Growth Method for High-Performance Electronic Devices. ACS Nano, 2012, 6, 3624-3630.	14.6	86
46	Infrared Photodetectors Based on 2D Materials and Nanophotonics. Advanced Functional Materials, 2022, 32, .	14.9	86
47	Controllable Electrical Properties of Metal-Doped In₂O₃ Nanowires for High-Performance Enhancement-Mode Transistors. ACS Nano, 2013, 7, 804-810.	14.6	85
48	In situ formation of highly active Niâ€“Fe based oxygen-evolving electrocatalysts via simple reactive dip-coating. Journal of Materials Chemistry A, 2017, 5, 11009-11015.	10.3	85
49	Incorporation of rare earth elements with transition metalâ€“based materials for electrocatalysis: a review for recent progress. Materials Today Chemistry, 2019, 12, 266-281.	3.5	82
50	Perovskite/Black Phosphorus/MoS₂ Photogate Reversed Photodiodes with Ultrahigh Light On/Off Ratio and Fast Response. ACS Nano, 2019, 13, 4804-4813.	14.6	81
51	Developing controllable anisotropic wet etching to achieve silicon nanorods, nanopencils and nanocones for efficient photon trapping. Journal of Materials Chemistry A, 2013, 1, 9942.	10.3	77
52	Tailoring electromagnetically induced transparency for terahertz metamaterials: From diatomic to triatomic structural molecules. Applied Physics Letters, 2013, 103, 021115.	3.3	76
53	Novel Series of Quasi-2D Ruddlesdenâ€“Popper Perovskites Based on Short-Chained Spacer Cation for Enhanced Photodetection. ACS Applied Materials & Interfaces, 2018, 10, 19019-19026.	8.0	75
54	Integration of Highâ€k Oxide on MoS₂ by Using Ozone Pretreatment for Highâ€Performance MoS₂ Topâ€Gated Transistor with Thicknessâ€Dependent Carrier Scattering Investigation. Small, 2015, 11, 5932-5938.	10.0	74

#	Article	IF	Citations
55	Visible to near-infrared photodetectors based on MoS₂vertical Schottky junctions. Nanotechnology, 2017, 28, 484002.	2.6	73
56	Nanoscale doping of InAs via sulfur monolayers. Applied Physics Letters, 2009, 95, .	3.3	71
57	Synthesis, contact printing, and device characterization of Ni-catalyzed, crystalline InAs nanowires. Nano Research, 2008, 1, 32-39.	10.4	70
58	Monolayer Resist for Patterned Contact Printing of Aligned Nanowire Arrays. Journal of the American Chemical Society, 2009, 131, 2102-2103.	13.7	70
59	Approaching the Hole Mobility Limit of GaSb Nanowires. ACS Nano, 2015, 9, 9268-9275.	14.6	70
60	Engineering Surface Structure of Spinel Oxides via High-Valent Vanadium Doping for Remarkably Enhanced Electrocatalytic Oxygen Evolution Reaction. ACS Applied Materials & Interfaces, 2019, 11, 33012-33021.	8.0	70
61	Ultra-fast photodetectors based on high-mobility indium gallium antimonide nanowires. Nature Communications, 2019, 10, 1664.	12.8	70
62	Tunable Electronic Transport Properties of Metalâ€Clusterâ€Decorated IIIâ€“V Nanowire Transistors. Advanced Materials, 2013, 25, 4445-4451.	21.0	68
63	Dielectric Engineering of a Boron Nitride/Hafnium Oxide Heterostructure for Highâ€Performance 2D Field Effect Transistors. Advanced Materials, 2016, 28, 2062-2069.	21.0	65
64	Amine-Modulated/Engineered Interfaces of NiMo Electrocatalysts for Improved Hydrogen Evolution Reaction in Alkaline Solutions. ACS Applied Materials & Interfaces, 2018, 10, 1728-1733.	8.0	65
65	2D WS₂: From Vapor Phase Synthesis to Device Applications. Advanced Electronic Materials, 2021, 7, 2000688.	5.1	63
66	Surface roughness induced electron mobility degradation in InAs nanowires. Nanotechnology, 2013, 24, 375202.	2.6	62
67	A unique sandwich structure of a CoMnP/Ni₂P/NiFe electrocatalyst for highly efficient overall water splitting. Journal of Materials Chemistry A, 2019, 7, 12325-12332.	10.3	62
68	Selfâ€Assembly of Colloidal Spheres toward Fabrication of Hierarchical and Periodic Nanostructures for Technological Applications. Advanced Materials Technologies, 2019, 4, 1800541.	5.8	62
69	Formation and Characterization of NixInAs/InAs Nanowire Heterostructures by Solid Source Reaction. Nano Letters, 2008, 8, 4528-4533.	9.1	61
70	Controllable pâ€“n Switching Behaviors of GaAs Nanowires via an Interface Effect. ACS Nano, 2012, 6, 4428-4433.	14.6	61
71	Is platinum a suitable counter electrode material for electrochemical hydrogen evolution reaction?. Science Bulletin, 2017, 62, 971-973.	9.0	59
72	High-Performance GaAs Nanowire Solar Cells for Flexible and Transparent Photovoltaics. ACS Applied Materials & Interfaces, 2015, 7, 20454-20459.	8.0	58

#	Article	IF	Citations
73	Patterned p-Doping of InAs Nanowires by Gas-Phase Surface Diffusion of Zn. Nano Letters, 2010, 10, 509-513.	9.1	57
74	Recent developments in IIIâ€“V semiconducting nanowires for high-performance photodetectors. Materials Chemistry Frontiers, 2017, 1, 630-645.	5.9	55
75	Phosphorusâ€Doped MoS₂ Nanosheets Supported on Carbon Cloths as Efficient Hydrogenâ€Generation Electrocatalysts. ChemCatChem, 2018, 10, 1571-1577.	3.7	55
76	High-performance enhancement-mode thin-film transistors based on Mg-doped In2O3 nanofiber networks. Nano Research, 2018, 11, 1227-1237.	10.4	55
77	Manipulated Growth of GaAs Nanowires: Controllable Crystal Quality and Growth Orientations via a Supersaturation-Controlled Engineering Process. Crystal Growth and Design, 2012, 12, 6243-6249.	3.0	54
78	Transparent metal-oxide nanowires and their applications in harsh electronics. Journal of Materials Chemistry C, 2019, 7, 202-217.	5.5	53
79	Facile synthesis and growth mechanism of Ni-catalyzed GaAs nanowires on non-crystalline substrates. Nanotechnology, 2011, 22, 285607.	2.6	51
80	Artificial visual systems enabled by quasiâ€“two-dimensional electron gases in oxide superlattice nanowires. Science Advances, 2020, 6, .	10.3	51
81	Few-layer bismuth selenide cathode for low-temperature quasi-solid-state aqueous zinc metal batteries. Nature Communications, 2022, 13, 752.	12.8	49
82	Roomâ€Temperature Redâ€“Greenâ€“Blue Whisperingâ€Gallery Mode Lasing and Whiteâ€Light Emission from Cesium Lead Halide Perovskite (CsPbX₃, X = Cl, Br, I) Microstructures. Advanced Optical Materials, 2018, 6, 1700993.	7.3	47
83	Band transitions in wurtzite GaN and InN determined by valence electron energy loss spectroscopy. Solid State Communications, 2005, 135, 340-344.	1.9	46
84	Layered Ternary and Quaternary Transition Metal Chalcogenide Based Catalysts for Water Splitting. Catalysts, 2018, 8, 551.	3.5	45
85	Flexible Carbonâ€Nanofiber Connectors with Anisotropic Adhesion Properties. Small, 2010, 6, 22-26.	10.0	44
86	High-Performance Transparent Ultraviolet Photodetectors Based on InGaZnO Superlattice Nanowire Arrays. ACS Nano, 2019, 13, 12042-12051.	14.6	43
87	Photoresponse improvement of mixed-dimensional 1Dâ€“2D GaAs photodetectors by incorporating constructive interface states. Nanoscale, 2021, 13, 1086-1092.	5.6	43
88	NiMo@C3N5 heterostructures with multiple electronic transmission channels for highly efficient hydrogen evolution from alkaline electrolytes and seawater. Chemical Engineering Journal, 2022, 438, 135379.	12.7	42
89	Stoichiometric Effect on Electrical, Optical, and Structural Properties of Composition-Tunable InxGa1â€“xAs Nanowires. ACS Nano, 2012, 6, 9320-9325.	14.6	41
90	GaAs Nanowires: From Manipulation of Defect Formation to Controllable Electronic Transport Properties. ACS Nano, 2013, 7, 9138-9146.	14.6	41

#	Article	IF	Citations
91	Sideâ€Gated In₂O₃ Nanowire Ferroelectric FETs for Highâ€Performance Nonvolatile Memory Applications. Advanced Science, 2016, 3, 1600078.	11.2	41
92	Ferroelectric P(VDF-TrFE) wrapped InGaAs nanowires for ultralow-power artificial synapses. Nano Energy, 2022, 91, 106654.	16.0	41
93	Van der Waals PdSe₂/WS₂ Heterostructures for Robust Highâ€Performance Broadband Photodetection from Visible to Infrared Optical Communication Band. Advanced Optical Materials, 2021, 9, 2001991.	7.3	40
94	Effects of nanoparticle size and cell type on high sensitivity cell detection using a localized surface plasmon resonance biosensor. Biosensors and Bioelectronics, 2014, 55, 141-148.	10.1	39
95	Environmentally and Mechanically Stable Selenium 1D/2D Hybrid Structures for Broad-Range Photoresponse from Ultraviolet to Infrared Wavelengths. ACS Applied Materials & Interfaces, 2018, 10, 35477-35486.	8.0	39
96	Cerium Phosphate as a Novel Cocatalyst Promoting NiCo₂O₄ Nanowire Arrays for Efficient and Robust Electrocatalytic Oxygen Evolution. ACS Applied Energy Materials, 2019, 2, 5769-5776.	5.1	39
97	Crystalline all-inorganic lead-free Cs3Sb2I9 perovskite microplates with ultra-fast photoconductive response and robust thermal stability. Nano Research, 2021, 14, 4116-4124.	10.4	39
98	Complementary Metal Oxide Semiconductor-Compatible, High-Mobility, âŸ¨111âŸ©-Oriented GaSb Nanowires Enabled by Vaporâ€“Solidâ€“Solid Chemical Vapor Deposition. ACS Nano, 2017, 11, 4237-4246.	14.6	38
99	The influence of structural properties on conductivity and luminescence of MBE grown InN. Journal of Crystal Growth, 2004, 269, 111-118.	1.5	37
100	Phase separation in InxGa1â^'xN. Philosophical Magazine, 2007, 87, 1983-1998.	1.6	37
101	Phosphine Oxide Monolayers on SiO₂ Surfaces. Angewandte Chemie - International Edition, 2008, 47, 4440-4442.	13.8	37
102	Performance Limits of the Selfâ€Aligned Nanowire Topâ€Gated MoS₂ Transistors. Advanced Functional Materials, 2017, 27, 1602250.	14.9	37
103	GaAs nanowire Schottky barrier photovoltaics utilizing Auâ€“Ga alloy catalytic tips. Applied Physics Letters, 2012, 101, .	3.3	36
104	Crystalline GaSb Nanowires Synthesized on Amorphous Substrates: From the Formation Mechanism to p-Channel Transistor Applications. ACS Applied Materials & Interfaces, 2013, 5, 10946-10952.	8.0	36
105	Modulating Electrical Performances of In₂O₃ Nanofiber Channel Thin Film Transistors via Sr Doping. Advanced Electronic Materials, 2019, 5, 1800707.	5.1	36
106	Incorporating mixed cations in quasi-2D perovskites for high-performance and flexible photodetectors. Nanoscale Horizons, 2019, 4, 1342-1352.	8.0	35
107	Perovskite Coreâ€“Shell Nanowire Transistors: Interfacial Transfer Doping and Surface Passivation. ACS Nano, 2020, 14, 12749-12760.	14.6	34
108	High-performance indium phosphide nanowires synthesized on amorphous substrates: from formation mechanism to optical and electrical transport measurements. Journal of Materials Chemistry, 2012, 22, 10704.	6.7	33

#	Article	IF	Citations
109	Modulating Electrical Properties of InAs Nanowires via Molecular Monolayers. ACS Nano, 2015, 9, 7545-7552.	14.6	33
110	Substantially Improving Device Performance of Allâ€Inorganic Perovskiteâ€Based Phototransistors via Indium Tin Oxide Nanowire Incorporation. Small, 2020, 16, e1905609.	10.0	33
111	Carbon doping of InSb nanowires for high-performance p-channel field-effect-transistors. Nanoscale, 2013, 5, 9671.	5.6	32
112	IIIâ€“V Nanowires: Synthesis, Property Manipulations, and Device Applications. Journal of Nanomaterials, 2014, 2014, 1-14.	2.7	32
113	Enhanced performance of perovskite solar cells based on vertical TiO 2 nanotube arrays with full filling of CH 3 NH 3 PbI 3. Applied Surface Science, 2018, 451, 250-257.	6.1	32
114	ZnO Nanofiber Thinâ€Film Transistors with Lowâ€Operating Voltages. Advanced Electronic Materials, 2018, 4, 1700336.	5.1	32
115	Highly Efficient Full van der Waals 1D pâ€Te/2D nâ€Bi₂O₂Se Heterodiodes with Nanoscale Ultraâ€Photosensitive Channels. Advanced Functional Materials, 2022, 32, .	14.9	32
116	Wet and Dry Adhesion Properties of Selfâ€Selective Nanowire Connectors. Advanced Functional Materials, 2009, 19, 3098-3102.	14.9	31
117	One-dimensional nanostructured materials for solar energy harvesting. Nanomaterials and Energy, 2012, 1, 4-17.	0.2	31
118	Diameter dependence of electron mobility in InGaAs nanowires. Applied Physics Letters, 2013, 102, .	3.3	31
119	Two-Dimensional Cobalt Phosphate Hydroxide Nanosheets: A New Type of High-Performance Electrocatalysts with Intrinsic CoO₆ Lattice Distortion for Water Oxidation. ACS Applied Materials & Interfaces, 2019, 11, 38633-38640.	8.0	31
120	Co₃O₄ Nanosheets with In-Plane Pores and Highly Active {112} Exposed Facets for High Performance Lithium Storage. Journal of Physical Chemistry C, 2017, 121, 19002-19009.	3.1	30
121	Nonpolar-Oriented Wurtzite InP Nanowires with Electron Mobility Approaching the Theoretical Limit. ACS Nano, 2018, 12, 10410-10418.	14.6	30
122	Effects of stoichiometry on electrical, optical, and structural properties of indium nitride. Journal of Applied Physics, 2005, 98, 093712.	2.5	28
123	Hybrid core-multishell nanowire forests for electrical connector applications. Applied Physics Letters, 2009, 94, 263110.	3.3	28
124	Selective n-type doping in graphene via the aluminium nanoparticle decoration approach. Journal of Materials Chemistry C, 2014, 2, 5417-5421.	5.5	27
125	Unraveling the Morphological Evolution and Etching Kinetics of Porous Silicon Nanowires During Metal-Assisted Chemical Etching. Nanoscale Research Letters, 2017, 12, 385.	5.7	27
126	More than physical support: The effect of nickel foam corrosion on electrocatalytic performance. Applied Surface Science, 2021, 538, 147977.	6.1	27

#	Article	IF	Citations
127	Direct Visualization of Grain Boundaries in 2D Monolayer WS₂ via Induced Growth of CdS Nanoparticle Chains. Small Methods, 2019, 3, 1800245.	8.6	26
128	Recent advances in III-Sb nanowires: from synthesis to applications. Nanotechnology, 2019, 30, 202003.	2.6	26
129	Highâ€Performance Flexible Selfâ€Powered Photodetectors Utilizing Spontaneous Electron and Hole Separation in Quasiâ€2D Halide Perovskites. Small, 2021, 17, e2100442.	10.0	26
130	NiFe-layered double hydroxideÂarrays for oxygen evolution reaction in fresh water and seawater. Materials Today Energy, 2021, 22, 100883.	4.7	26
131	Bication-Mediated Quasi-2D Halide Perovskites for High-Performance Flexible Photodetectors: From Ruddlesdenâ€“Popper Type to Dionâ€“Jacobson Type. ACS Applied Materials & Interfaces, 2020, 12, 39567-39577.	8.0	25
132	Mechanistic Characteristics of Metal-Assisted Chemical Etching in GaAs. Journal of Physical Chemistry C, 2014, 118, 6903-6908.	3.1	24
133	Enhanced Negative Photoconductivity in InAs Nanowire Phototransistors Surfaceâ€Modified with Molecular Monolayers. Advanced Materials Interfaces, 2018, 5, 1701104.	3.7	24
134	Mixed-Dimensional Anti-ambipolar Phototransistors Based on 1D GaAsSb/2D MoS₂ Heterojunctions. ACS Nano, 2022, 16, 11036-11048.	14.6	24
135	Generic Nanomaterial Positioning by Carrier and Stationary Phase Design. Nano Letters, 2007, 7, 2764-2768.	9.1	23
136	Nanoscale Structural Engineering via Phase Segregation: Auâ^'Ge System. Nano Letters, 2010, 10, 393-397.	9.1	23
137	Crystal phase and growth orientation dependence of GaAs nanowires on Ni_xGa_y seeds via vapor-solid-solid mechanism. Applied Physics Letters, 2011, 99, 083114.	3.3	23
138	Coupling of Nickel Boride and Ni(OH)₂ Nanosheets with Hierarchical Interconnected Conductive Porous Structure Synergizes the Oxygen Evolution Reaction. ChemCatChem, 2018, 10, 4555-4561.	3.7	23
139	Thermoplasmonics-assisted nanoheterostructured Au-decorated CuInS2 nanoparticles: Matching solar spectrum absorption and its application on selective distillation of non-polar solvent systems by thermal solar energy. Nano Energy, 2015, 15, 470-478.	16.0	22
140	Crystal Orientation Controlled Photovoltaic Properties of Multilayer GaAs Nanowire Arrays. ACS Nano, 2016, 10, 6283-6290.	14.6	22
141	Towards high-mobility In2xGa2â€“2xO3 nanowire field-effect transistors. Nano Research, 2018, 11, 5935-5945.	10.4	22
142	Near-Infrared Polarimetric Image Sensors Based on Ordered Sulfur-Passivation GaSb Nanowire Arrays. ACS Nano, 2022, 16, 8128-8140.	14.6	22
143	Vacancy Modulating Co₃Sn₂S₂ Topological Semimetal for Aqueous Zincâ€Ion Batteries. Angewandte Chemie - International Edition, 2022, 61, e202111826.	13.8	21
144	Polymer-Confined Colloidal Monolayer: A Reusable Soft Photomask for Rapid Wafer-Scale Nanopatterning. ACS Applied Materials & Interfaces, 2014, 6, 20837-20841.	8.0	20

#	Article	IF	Citations
145	High-Performance Wrap-Gated InGaAs Nanowire Field-Effect Transistors with Sputtered Dielectrics. Scientific Reports, 2015, 5, 16871.	3.3	20
146	Spectroscopic examination of enamel staining by coffee indicates dentin erosion by sequestration of elements. Talanta, 2018, 189, 550-559.	5.5	20
147	Crystalline InGaZnO quaternary nanowires with superlattice structure for high-performance thin-film transistors. Nano Research, 2019, 12, 1796-1803.	10.4	20
148	The origin of gate bias stress instability and hysteresis in monolayer WS2 transistors. Nano Research, 2020, 13, 3278-3285.	10.4	20
149	High-mobility In and Ga co-doped ZnO nanowires for high-performance transistors and ultraviolet photodetectors. Nanoscale, 2020, 12, 16153-16161.	5.6	20
150	High elasticity of CsPbBr3 perovskite nanowires for flexible electronics. Nano Research, 2021, 14, 4033-4037.	10.4	20
151	Two-Step Chemical Vapor Deposition-Synthesized Lead-Free All-Inorganic Cs₃Sb₂Br₉ Perovskite Microplates for Optoelectronic Applications. ACS Applied Materials & Interfaces, 2021, 13, 35930-35940.	8.0	20
152	Utilizing a NaOH Promoter to Achieve Large Single-Domain Monolayer WS2 Films via Modified Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2019, 11, 35238-35246.	8.0	19
153	Topochemical domain engineering to construct 2D mosaic heterostructure with internal electric field for high-performance overall water splitting. Nano Energy, 2022, 101, 107566.	16.0	19
154	Selfâ€Assembly of Colloidal Particles for Fabrication of Structural Color Materials toward Advanced Intelligent Systems. Advanced Intelligent Systems, 2020, 2, 1900085.	6.1	18
155	Controllable optical emission wavelength in all-inorganic halide perovskite alloy microplates grown by two-step chemical vapor deposition. Nano Research, 2020, 13, 2939-2949.	10.4	18
156	Toward Unusualâ€High Hole Mobility of pâ€Channel Fieldâ€Effectâ€Transistors. Small, 2021, 17, 2102323.	10.0	18
157	Influence of catalyst choices on transport behaviors of InAs NWs for high-performance nanoscale transistors. Physical Chemistry Chemical Physics, 2013, 15, 2654.	2.8	17
158	Inverted Silicon Nanopencil Array Solar Cells with Enhanced Contact Structures. Scientific Reports, 2016, 6, 34139.	3.3	17
159	Controllable IIIâ€“V nanowire growth via catalyst epitaxy. Journal of Materials Chemistry C, 2017, 5, 4393-4399.	5.5	17
160	Flexible Nearâ€Infrared InGaSb Nanowire Array Detectors with Ultrafast Photoconductive Response Below 20 Âµs. Advanced Optical Materials, 2020, 8, 2001201.	7.3	17
161	Optical Nanoscale Patterning Through Surfaceâ€Textured Polymer Films. Advanced Optical Materials, 2014, 2, 855-860.	7.3	16
162	Modulating the Morphology and Electrical Properties of GaAs Nanowires via Catalyst Stabilization by Oxygen. ACS Applied Materials & Interfaces, 2015, 7, 5591-5597.	8.0	16

#	Article	IF	Citations
163	Fullâ€Color Reflective Filters in a Large Area with a Wideâ€Band Tunable Absorber Deposited by Oneâ€Step Magnetron Sputtering. Advanced Optical Materials, 2020, 8, 1901626.	7.3	16
164	Enhanced performance of near-infrared photodetectors based on InGaAs nanowires enabled by a two-step growth method. Journal of Materials Chemistry C, 2020, 8, 17025-17033.	5.5	16
165	Selfâ€Antiâ€Stacking 2D Metal Phosphide Loopâ€Sheet Heterostructures by Edgeâ€Topological Regulation for Highly Efficient Water Oxidation. Small, 2021, 17, e2006860.	10.0	16
166	Hierarchical silicon nanostructured arrays via metal-assisted chemical etching. RSC Advances, 2014, 4, 50081-50085.	3.6	15
167	Low-temperature growth of highly crystalline Î²-Ga2O3 nanowires by solid-source chemical vapor deposition. Nanoscale Research Letters, 2014, 9, 347.	5.7	15
168	Global Photocurrent Generation in Phototransistors Based on Singleâ€Walled Carbon Nanotubes toward Highly Sensitive Infrared Detection. Advanced Optical Materials, 2019, 7, 1900597.	7.3	15
169	Recent advances in flexible photodetectors based on 1D nanostructures. Journal of Semiconductors, 2019, 40, 111602.	3.7	15
170	Recent Advances in the Construction of 2D Heterostructures for Electrocatalytic Water Splitting. Advanced Energy and Sustainability Research, 2022, 3, .	5.8	15
171	Design and fabrication of 1-D semiconductor nanomaterials for high-performance photovoltaics. Science Bulletin, 2016, 61, 357-367.	9.0	14
172	High-performance electrically transduced hazardous gas sensors based on low-dimensional nanomaterials. Nanoscale Advances, 2021, 3, 6254-6270.	4.6	14
173	Characterization of oxide precipitates in epitaxial InN by transmission electron microscopy. Applied Physics Letters, 2005, 87, 092102.	3.3	13
174	Diameter Dependence of Planar Defects in InP Nanowires. Scientific Reports, 2016, 6, 32910.	3.3	13
175	Manipulating IIIâ€“V Nanowire Transistor Performance via Surface Decoration of Metalâ€Oxide Nanoparticles. Advanced Materials Interfaces, 2017, 4, 1700260.	3.7	13
176	Morphology and strain control of hierarchical cobalt oxide nanowire electrocatalysts via solvent effect. Nano Research, 2020, 13, 3130-3136.	10.4	13
177	Antimonyâ€Rich GaAs_xSb_{1â^'}_x Nanowires Passivated by Organic Sulfides for Highâ€Performance Transistors and Nearâ€Infrared Photodetectors. Advanced Optical Materials, 2021, 9, 2101289.	7.3	13
178	Gate Bias Stress Instability and Hysteresis Characteristics of InAs Nanowire Field-Effect Transistors. ACS Applied Materials & Interfaces, 2020, 12, 56330-56337.	8.0	13
179	Sequential self-reconstruction of localized Mo species in hierarchical carbon/Coâ€“Mo oxide heterostructures for boosting alkaline hydrogen evolution kinetics and durability. Journal of Materials Chemistry A, 2022, 10, 3953-3962.	10.3	13
180	Large-scale and uniform preparation of pure-phase wurtzite GaAs NWs on non-crystalline substrates. Nanoscale Research Letters, 2012, 7, 632.	5.7	12

#	Article	IF	Citations
181	Hierarchical Nanostructures: Hierarchical Nanostructures: Design for Sustainable Water Splitting (Adv. Energy Mater. 23/2017). Advanced Energy Materials, 2017, 7, 1770135.	19.5	12
182	Face-selective tungstate ions drive zinc oxide nanowire growth direction and dopant incorporation. Communications Materials, 2020, 1, .	6.9	12
183	Self-assembly of one-dimensional nanomaterials for cost-effective photovoltaics. International Journal of Nanoparticles, 2011, 4, 164.	0.3	11
184	Optical Properties of In_{2x}Ga_{2â€“2x}O₃ Nanowires Revealed by Photoacoustic Spectroscopy. ACS Applied Materials & Interfaces, 2019, 11, 19260-19266.	8.0	11
185	In situ electrochemical conversion of cobalt oxide@MOF-74 core-shell structure as an efficient and robust electrocatalyst for water oxidation. Applied Materials Today, 2020, 21, 100820.	4.3	11
186	A thermally robust and strongly oxidizing surface of WO₃hydrate nanowires for electrical aldehyde sensing with long-term stability. Journal of Materials Chemistry A, 2021, 9, 5815-5824.	10.3	11
187	Direct drop-casting synthesis of all-inorganic lead and lead-free halide perovskite microcrystals for high-performance photodetectors. Nano Research, 2022, 15, 3621-3627.	10.4	11
188	Enhanced Self-Assembly of Crystalline, Large-Area, and Periodicity-Tunable TiO₂ Nanotube Arrays on Various Substrates. ACS Applied Materials & Interfaces, 2017, 9, 6265-6272.	8.0	10
189	Sub-kT/q switching in In₂O₃ nanowire negative capacitance field-effect transistors. Nanoscale, 2018, 10, 19131-19139.	5.6	10
190	Efficient and stable electrocatalysts for water splitting. MRS Bulletin, 2020, 45, 531-538.	3.5	10
191	Stable Hysteresis-Free MoS₂ Transistors With Low-k/High-k Bilayer Gate Dielectrics. IEEE Electron Device Letters, 2020, 41, 1036-1039.	3.9	10
192	Stable bismuth-antimony alloy cathode with a conversion-dissolution/deposition mechanism for high-performance zinc batteries. Materials Today, 2021, 51, 87-95.	14.2	10
193	On-wire axial perovskite heterostructures for monolithic dual-wavelength laser. Nano Energy, 2022, 92, 106778.	16.0	10
194	Zincblende and wurtzite phases in InN epilayers and their respective band transitions. Journal of Crystal Growth, 2006, 288, 225-229.	1.5	9
195	Nanowires: Anomalous and Highly Efficient InAs Nanowire Phototransistors Based on Majority Carrier Transport at Room Temperature (Adv. Mater. 48/2014). Advanced Materials, 2014, 26, 8232-8232.	21.0	9
196	Fabrication and enhanced light-trapping properties of three-dimensional silicon nanostructures for photovoltaic applications. Pure and Applied Chemistry, 2014, 86, 557-573.	1.9	9
197	Formation mechanisms for the dominant kinks with different angles in InP nanowires. Nanoscale Research Letters, 2014, 9, 211.	5.7	9
198	Growth and Photovoltaic Properties of High-Quality GaAs Nanowires Prepared by the Two-Source CVD Method. Nanoscale Research Letters, 2016, 11, 191.	5.7	9

#	Article	IF	Citations
199	Vacancy Modulating Co₃Sn₂S₂ Topological Semimetal for Aqueous Zincâ€Ion Batteries. Angewandte Chemie, 2022, 134, .	2.0	9
200	Stability and Low-Frequency Noise in InAs NW Parallel-Array Thin-Film Transistors. IEEE Electron Device Letters, 2013, 34, 765-767.	3.9	8
201	GaAs Nanowires Grown by Catalyst Epitaxy for High Performance Photovoltaics. Crystals, 2018, 8, 347.	2.2	8
202	Quantum Artificial Synapses. Advanced Quantum Technologies, 2021, 4, 2100072.	3.9	8
203	Chalcogen passivation: an in-situ method to manipulate theÂmorphology and electrical property of GaAs nanowires. Scientific Reports, 2018, 8, 6928.	3.3	7
204	Superior Performance and Stability of 2D Dionâ€“Jacobson Halide Perovskite Photodetectors Operated under Harsh Conditions without Encapsulation. Advanced Optical Materials, 2021, 9, 2101523.	7.3	7
205	Superior Electrocatalyst for Allâ€pH Hydrogen Evolution Reaction: Heterogeneous Rh/N and S Coâ€Doped Carbon Yolkâ€“Shell Nanospheres. Advanced Functional Materials, 2022, 32, .	14.9	7
206	Kinetic Growth of Self-Formed In2O3 Nanodots via Phase Segregation: Ni/InAs System. ACS Nano, 2011, 5, 6637-6642.	14.6	6
207	One-Dimensional Nanomaterials for Energy Applications. , 2014, , 75-120.		6
208	Mechanism of non-catalytic chemical vapor deposition growth of all-inorganic CsPbX₃ (X) Tj ETQq0 0 0 rgBT /Overlock 10 T	5.5	6
209	Effect of Negatively Charged Impurity on Graphene Magnetic Rings. Journal of the Physical Society of Japan, 2014, 83, 034007.	1.6	5
210	Enhanced Power Conversion Efficiency in Solutionâ€Processed Rigid CuIn(S,Se) 2 and Flexible Cu(In,Ga)Se 2 Solar Cells Utilizing Plasmonic Auâ€SiO 2 Coreâ€Shell Nanoparticles. Solar Rrl, 2019, 3, 1800343.	5.8	5
211	Solution-processed lead-free double perovskite microplatelets with enhanced photoresponse and thermal stability. Science China Materials, 2022, 65, 1313-1319.	6.3	5
212	Luminescent concentrators enable highly efficient and broadband photodetection. Light: Science and Applications, 2022, 11, 125.	16.6	5
213	Monolayer doping and diameter-dependent electron mobility assessment of nanowires. , 2009, , .		4
214	Controlled Growth of Heterostructured Ga/GaAs Nanowires with Sharp Schottky Barrier. Crystal Growth and Design, 2018, 18, 4438-4444.	3.0	4
215	Enhanced epitaxial growth of two-dimensional monolayer WS2 film with large single domains. Applied Materials Today, 2021, 25, 101234.	4.3	4
216	Unusual phase-pure zinc blende and highly-crystalline As-rich InAs_{1â^'x}Sb_x nanowires for high-mobility transistors. Journal of Materials Chemistry C, 2020, 8, 13189-13196.	5.5	3

#	Article	IF	Citations
217	Deconvoluting the energy transport mechanisms in all-inorganic CsPb2Br5/CsPbBr3 perovskite composite systems. APL Materials, 2022, 10, .	5.1	3
218	Photodetectors: High-Responsivity Graphene/InAs Nanowire Heterojunction Near-Infrared Photodetectors with Distinct Photocurrent On/Off Ratios (Small 8/2015). Small, 2015, 11, 890-890.	10.0	2
219	MXene-based wearable bio-sensor. Journal of Semiconductors, 2019, 40, 110202.	3.7	1
220	Dropâ€Casting Halide Microcrystals Enabled by Green Glycol Solvent for Highâ€Performance Photodetectors. Advanced Photonics Research, 2022, 3, .	3.6	1
221	Enhanced synthesis method to prepare crystalline GaAs nanowires with high growth yield. , 2011, , .		0
222	Threshold Tuning of III-V Nanowire Transistors via Metal Clusters Decoration. ECS Transactions, 2013, 58, 113-118.	0.5	0
223	Patterning: Optical Nanoscale Patterning Through Surface-Textured Polymer Films (Advanced Optical) Tj ETQq1 1 0.784314 rgBT /Ove	7.3	0
224	INTEGRATING SEMICONDUCTOR NANOWIRES FOR HIGH PERFORMANCE FLEXIBLE ELECTRONIC CIRCUITS. , 2016, , 117-165.		0
225	Photodetectors: Largeâ€Scale Synthesis of Freestanding Layerâ€Structured PbI₂ and MAPbI₃ Nanosheets for Highâ€Performance Photodetection (Adv. Mater. 39/2017). Advanced Materials, 2017, 29, .	21.0	0
226	Nanowire Transistors: Manipulating IIIâ€“V Nanowire Transistor Performance via Surface Decoration of Metalâ€Oxide Nanoparticles (Adv. Mater. Interfaces 12/2017). Advanced Materials Interfaces, 2017, 4, .	3.7	0
227	Thinâ€Film Transistors: ZnO Nanofiber Thinâ€Film Transistors with Lowâ€Operating Voltages (Adv.) Tj ETQq1 1 0.784314 rgBT /Overl	5.1	0
228	Orientation controlled GaSb nanowires: from growth to application. , 2018, , .		0
229	Composition tunable inorganic Lead Halide Perovskites microstructures synthesized by single and two-step chemical vapor deposition methods. , 2019, , .		0
230	Preface to the Special Issue on Flexible and Wearable Sensors for Robotics and Health. Journal of Semiconductors, 2019, 40, 110101.	3.7	0
231	Properties Engineering of IIIâ€“V Nanowires for Electronic Application. Nanostructure Science and Technology, 2019, , 53-82.	0.1	0