Hark Hoe Tan

List of Publications by Year
in descending order

694 papers	17,193 citations	23879 60 h-index	37326 100 g-index
705 all docs	705 docs citations	705 times ranked	14174 citing authors

#	Article	IF	Citations
1	Optically pumped room-temperature GaAs nanowire lasers. Nature Photonics, 2013, 7, 963-968.	15.6	503
2	Phase Perfection in Zinc Blende and Wurtzite IIIâˆ'V Nanowires Using Basic Growth Parameters. Nano Letters, 2010, 10, 908-915.	4.5	443
3	Broadband Metamaterial Absorbers. Advanced Optical Materials, 2019, 7, 1800995.	3.6	404
4	Twin-Free Uniform Epitaxial GaAs Nanowires Grown by a Two-Temperature Process. Nano Letters, 2007, 7, 921-926.	4.5	297
5	Electronic properties of GaAs, InAs and InP nanowires studied by terahertz spectroscopy. Nanotechnology, 2013, 24, 214006.	1.3	264
6	IIIâ€"V semiconductor nanowires for optoelectronic device applications. Progress in Quantum Electronics, 2011, 35, 23-75.	3.5	256
7	Carrier Lifetime and Mobility Enhancement in Nearly Defect-Free Coreâˆ'Shell Nanowires Measured Using Time-Resolved Terahertz Spectroscopy. Nano Letters, 2009, 9, 3349-3353.	4.5	253
8	Nonlinear Generation of Vector Beams From AlGaAs Nanoantennas. Nano Letters, 2016, 16, 7191-7197.	4.5	237
9	Influence of Nanowire Density on the Shape and Optical Properties of Ternary InGaAs Nanowires. Nano Letters, 2006, 6, 599-604.	4.5	222
10	Identifying carbon as the source of visible single-photon emission from hexagonal boron nitride. Nature Materials, 2021, 20, 321-328.	13.3	210
11	Selective-Area Epitaxy of Pure Wurtzite InP Nanowires: High Quantum Efficiency and Room-Temperature Lasing. Nano Letters, 2014, 14, 5206-5211.	4.5	198
12	Polarization and temperature dependence of photoluminescence from zincblende and wurtzite InP nanowires. Applied Physics Letters, 2007, 91, .	1.5	196
13	Transient Terahertz Conductivity of GaAs Nanowires. Nano Letters, 2007, 7, 2162-2165.	4.5	194
14	Carrier Dynamics and Quantum Confinement in type II ZB-WZ InP Nanowire Homostructures. Nano Letters, 2009, 9, 648-654.	4.5	168
15	Temperature dependence of photoluminescence from single core-shell GaAsâ€"AlGaAs nanowires. Applied Physics Letters, 2006, 89, 173126.	1.5	158
16	Ultralow Surface Recombination Velocity in InP Nanowires Probed by Terahertz Spectroscopy. Nano Letters, 2012, 12, 5325-5330.	4.5	158
17	Growth Mechanism of Truncated Triangular IIIâ€"V Nanowires. Small, 2007, 3, 389-393.	5.2	136
18	Liquid crystal based nonlinear fishnet metamaterials. Applied Physics Letters, 2012, 100, .	1.5	128

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19	Tantalum Oxide Electron-Selective Heterocontacts for Silicon Photovoltaics and Photoelectrochemical Water Reduction. ACS Energy Letters, 2018, 3, 125-131.	8.8	127
20	Unexpected Benefits of Rapid Growth Rate for IIIâ^'V Nanowires. Nano Letters, 2009, 9, 695-701.	4.5	126
21	Multipulse operation of a Ti:sapphire laser mode locked by an ion-implanted semiconductor saturable-absorber mirror. Journal of the Optical Society of America B: Optical Physics, 1999, 16, 895.	0.9	122
22	Polarization-sensitive terahertz detection by multicontact photoconductive receivers. Applied Physics Letters, 2005, 86, 254102.	1.5	120
23	Damage to epitaxial GaN layers by silicon implantation. Applied Physics Letters, 1996, 69, 2364-2366.	1.5	118
24	Super Deformability and Youngâ€™s Modulus of GaAs Nanowires. Advanced Materials, 2011, 23, 1356-1360.	11.1	114
25	Nearly intrinsic exciton lifetimes in single twin-free GaAsâ^•AlGaAs core-shell nanowire heterostructures. Applied Physics Letters, 2008, 93, .	1.5	109
26	Electrical and structural analysis of high-dose Si implantation in GaN. Applied Physics Letters, 1997, 70, 2729-2731.	1.5	107
27	Optical, Structural, and Numerical Investigations of GaAs/AlGaAs Coreâ€"Multishell Nanowire Quantum Well Tubes. Nano Letters, 2013, 13, 1016-1022.	4.5	106
28	Single Nanowire Photoconductive Terahertz Detectors. Nano Letters, 2015, 15, 206-210.	4.5	105
29	Influence of surface passivation on ultrafast carrier dynamics and terahertz radiation generation in GaAs. Applied Physics Letters, 2006, 89, 232102.	1.5	103
30	Direct Measure of Strain and Electronic Structure in GaAs/GaP Coreâ^'Shell Nanowires. Nano Letters, 2010, 10, 880-886.	4.5	101
31	Nonlinear Optical Magnetism Revealed by Second-Harmonic Generation in Nanoantennas. Nano Letters, 2017, 17, 3914-3918.	4.5	100
32	Structural characteristics of GaSbâ^•GaAs nanowire heterostructures grown by metal-organic chemical vapor deposition. Applied Physics Letters, 2006, 89, 231917.	1.5	99
33	The effect of V/III ratio and catalyst particle size on the crystal structure and optical properties of InP nanowires. Nanotechnology, 2009, 20, 225606.	1.3	99
34	Removal of Surface States and Recovery of Band-Edge Emission in InAs Nanowires through Surface Passivation. Nano Letters, 2012, 12, 3378-3384.	4.5	98
35	High Purity GaAs Nanowires Free of Planar Defects: Growth and Characterization. Advanced Functional Materials, 2008, 18, 3794-3800.	7.8	97
36	Enhanced Minority Carrier Lifetimes in GaAs/AlGaAs Coreâ€"Shell Nanowires through Shell Growth Optimization. Nano Letters, 2013, 13, 5135-5140.	4.5	97

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37	Room-temperature optically detected magnetic resonance of single defects in hexagonal boron nitride. Nature Communications, 2022, 13, 618.	5.8	97
38	Novel Growth Phenomena Observed in Axial InAs/GaAs Nanowire Heterostructures. Small, 2007, 3, 1873-1877.	5.2	93
39	Nature of heterointerfaces in GaAs/InAs and InAs/GaAs axial nanowire heterostructures. Applied Physics Letters, 2008, 93, .	1.5	90
40	Large energy shifts in GaAsâ€AlGaAs quantum wells by proton irradiationâ€induced intermixing. Applied Physics Letters, 1996, 68, 2401-2403.	1.5	86
41	Three-dimensional cross-nanowire networks recover full terahertz state. Science, 2020, 368, 510-513.	6.0	81
42	Long minority carrier lifetime in Au-catalyzed GaAs/AlxGa1â^'xAs core-shell nanowires. Applied Physics Letters, 2012, 101, .	1.5	80
43	Polarity-Driven 3-Fold Symmetry of GaAs/AlGaAs Core Multishell Nanowires. Nano Letters, 2013, 13, 3742-3748.	4.5	80
44	Design and Room-Temperature Operation of GaAs/AlGaAs Multiple Quantum Well Nanowire Lasers. Nano Letters, 2016, 16, 5080-5086.	4.5	80
45	Characterization of Semiconductor Nanowires Using Optical Tweezers. Nano Letters, 2011, 11, 2375-2381.	4.5	79
46	Phase Separation Induced by Au Catalysts in Ternary InGaAs Nanowires. Nano Letters, 2013, 13, 643-650.	4.5	79
47	Electron Mobilities Approaching Bulk Limits in â€œSurface-Freeâ€•GaAs Nanowires. Nano Letters, 2014, 14, 5989-5994.	4.5	79
48	Twinning Superlattice Formation in GaAs Nanowires. ACS Nano, 2013, 7, 8105-8114.	7.3	77
49	An Ultrafast Switchable Terahertz Polarization Modulator Based on IIIâ€"V Semiconductor Nanowires. Nano Letters, 2017, 17, 2603-2610.	4.5	77
50	Picosecond carrier lifetime in GaAs implanted with high doses of As ions: An alternative material to lowâ€temperature GaAs for optoelectronic applications. Applied Physics Letters, 1995, 66, 3304-3306.	1.5	76
51	Annealing of ion implanted gallium nitride. Applied Physics Letters, 1998, 72, 1190-1192.	1.5	75
52	IIIâ€"V Semiconductor Single Nanowire Solar Cells: A Review. Advanced Materials Technologies, 2018, 3, 1800005.	3.0	75
53	Selective area epitaxy of IIIâ€"V nanostructure arrays and networks: Growth, applications, and future directions. Applied Physics Reviews, 2021, 8, .	5.5	75
54	Mode Profiling of Semiconductor Nanowire Lasers. Nano Letters, 2015, 15, 5342-5348.	4.5	73

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55	Tunable Polarity in a IIIâ€“V Nanowire by Droplet Wetting and Surface Energy Engineering. Advanced Materials, 2015, 27, 6096-6103.	11.1	69
56	Doping-enhanced radiative efficiency enables lasing in unpassivated GaAs nanowires. Nature Communications, 2016, 7, 11927.	5.8	68
57	Tailoring Second-Harmonic Emission from (111)-GaAs Nanoantennas. Nano Letters, 2019, 19, 3905-3911.	4.5	66
58	Ion damage buildup and amorphization processes in AlxGa1âˆ’xAs. Journal of Applied Physics, 1995, 77, 87-94.	1.1	65
59	Room temperature GaAsSb single nanowire infrared photodetectors. Nanotechnology, 2015, 26, 445202.	1.3	63
60	Defect-Free <110> Zinc-Blende Structured InAs Nanowires Catalyzed by Palladium. Nano Letters, 2012, 12, 5744-5749.	4.5	62
61	Effect of a High Density of Stacking Faults on the Youngâ€™s Modulus of GaAs Nanowires. Nano Letters, 2016, 16, 1911-1916.	4.5	61
62	Nonlinear Optical Processes in Optically Trapped InP Nanowires. Nano Letters, 2011, 11, 4149-4153.	4.5	58
63	Efficiency enhancement of axial junction InP single nanowire solar cells by dielectric coating. Nano Energy, 2016, 28, 106-114.	8.2	58
64	Over 17% Efficiency Standâ€Alone Solar Water Splitting Enabled by Perovskiteâ€Silicon Tandem Absorbers. Advanced Energy Materials, 2020, 10, 2000772.	10.2	58
65	Suppression of interdiffusion in InGaAs/GaAs quantum dots using dielectric layer of titanium dioxide. Applied Physics Letters, 2003, 82, 2613-2615.	1.5	57
66	Simultaneous Selective-Area and Vaporâ€“Liquidâ€“Solid Growth of InP Nanowire Arrays. Nano Letters, 2016, 16, 4361-4367.	4.5	57
67	Flow modulation epitaxy of hexagonal boron nitride. 2D Materials, 2018, 5, 045018.	2.0	57
68	Controlling the morphology, composition and crystal structure in gold-seeded GaAs_{1âˆ’x}Sb_xnanowires. Nanoscale, 2015, 7, 4995-5003.	2.8	56
69	Ion-implanted In0.53Ga0.47As for ultrafast optoelectronic applications. Applied Physics Letters, 2003, 82, 3913-3915.	1.5	55
70	Origin of stress in radio frequency magnetron sputtered zinc oxide thin films. Journal of Applied Physics, 2011, 109, .	1.1	55
71	Integration of Semiconductor Nanowire Lasers with Polymeric Waveguide Devices on a Mechanically Flexible Substrate. Nano Letters, 2017, 17, 5990-5994.	4.5	55
72	Electron-hole recombination properties of In0.5Ga0.5As/GaAs quantum dot solar cells and the influence on the open circuit voltage. Applied Physics Letters, 2010, 97, .	1.5	54

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73	Strong Carrier Lifetime Enhancement in GaAs Nanowires Coated with Semiconducting Polymer. Nano Letters, 2012, 12, 6293-6301.	4.5	54
74	Magnetism of Co-doped ZnO epitaxially grown on a ZnO substrate. Physical Review B, 2012, 85, .	1.1	54
75	IIIâ€“V Semiconductor Materials for Solar Hydrogen Production: Status and Prospects. ACS Energy Letters, 2020, 5, 611-622.	8.8	54
76	Photoconductive response correction for detectors of terahertz radiation. Journal of Applied Physics, 2008, 104, .	1.1	53
77	Optical design of nanowire absorbers for wavelength selective photodetectors. Scientific Reports, 2015, 5, 15339.	1.6	53
78	Forward and Backward Switching of Nonlinear Unidirectional Emission from GaAs Nanoantennas. ACS Nano, 2020, 14, 1379-1389.	7.3	53
79	Growth temperature and V/III ratio effects on the morphology and crystal structure of InP nanowires. Journal Physics D: Applied Physics, 2010, 43, 445402.	1.3	52
80	Understanding the True Shape of Au-Catalyzed GaAs Nanowires. Nano Letters, 2014, 14, 5865-5872.	4.5	52
81	Evolution of Epitaxial InAs Nanowires on GaAs (111)B. Small, 2009, 5, 366-369.	5.2	51
82	Nanowires Grown on InP (100): Growth Directions, Facets, Crystal Structures, and Relative Yield Control. ACS Nano, 2014, 8, 6945-6954.	7.3	51
83	InGaAs quantum dots grown with GaP strain compensation layers. Journal of Applied Physics, 2004, 95, 5710-5714.	1.1	50
84	Room temperature photocurrent spectroscopy of single zincblende and wurtzite InP nanowires. Applied Physics Letters, 2009, 94, 193115.	1.5	50
85	Transfer Printing of Semiconductor Nanowires with Lasing Emission for Controllable Nanophotonic Device Fabrication. ACS Nano, 2016, 10, 3951-3958.	7.3	50
86	Dynamics of Strongly Degenerate Electronâˆ’Hole Plasmas and Excitons in Single InP Nanowires. Nano Letters, 2007, 7, 3383-3387.	4.5	49
87	Nanosheets-Based Rhombohedral In₂O₃ 3D Hierarchical Microspheres: Synthesis, Growth Mechanism, and Optical Properties. Journal of Physical Chemistry C, 2009, 113, 10511-10516.	1.5	49
88	Tilted response of fishnet metamaterials at near-infrared optical wavelengths. Physical Review B, 2010, 81, .	1.1	49
89	Emergence of Localized States in Narrow GaAs/AlGaAs Nanowire Quantum Well Tubes. Nano Letters, 2015, 15, 1876-1882.	4.5	49
90	Engineering the Photoresponse of InAs Nanowires. ACS Applied Materials & Interfaces, 2017, 9, 43993-44000.	4.0	49

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91	Self-Healing of Fractured GaAs Nanowires. Nano Letters, 2011, 11, 1546-1549.	4.5	48
92	Temperature Dependence of Interband Transitions in Wurtzite InP Nanowires. ACS Nano, 2015, 9, 4277-4287.	7.3	48
93	Manipulating Intermediates at the Auâ€"TiO₂ Interface over InP Nanopillar Array for Photoelectrochemical CO₂ Reduction. ACS Catalysis, 2021, 11, 11416-11428.	5.5	48
94	Bandgap Energy of Wurtzite InAs Nanowires. Nano Letters, 2016, 16, 5197-5203.	4.5	47
95	Wavelength shifting in GaAs quantum well lasers by proton irradiation. Applied Physics Letters, 1997, 71, 2680-2682.	1.5	46
96	An ion-implanted InP receiver for polarization resolved terahertz spectroscopy. Optics Express, 2007, 15, 7047.	1.7	46
97	Mechanisms of electrical isolation in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mtext>O</mml:mtext><mml:mo>+</mml:mo></mml:msup></mml:mrow></mml:mat ZnO. Physical Review B, 2008, 78, .	1.1	46
98	Broadband Phase-Sensitive Single InP Nanowire Photoconductive Terahertz Detectors. Nano Letters, 2016, 16, 4925-4931.	4.5	46
99	Rational Design of Oxygen Deficiency-Controlled Tungsten Oxide Electrochromic Films with an Exceptional Memory Effect. ACS Applied Materials & Interfaces, 2020, 12, 32658-32665.	4.0	46
100	Effects of rapid thermal annealing on device characteristics of InGaAsâˆ•GaAs quantum dot infrared photodetectors. Journal of Applied Physics, 2006, 99, 114517.	1.1	45
101	Strengthening Brittle Semiconductor Nanowires through Stacking Faults: Insights from in Situ Mechanical Testing. Nano Letters, 2013, 13, 4369-4373.	4.5	45
102	Ultrasensitive Mid-wavelength Infrared Photodetection Based on a Single InAs Nanowire. ACS Nano, 2019, 13, 3492-3499.	7.3	45
103	Structure modulated amorphous/crystalline WO3 nanoporous arrays with superior electrochromic energy storage performance. Solar Energy Materials and Solar Cells, 2020, 212, 110579.	3.0	45
104	Probing valence band structure in wurtzite InP nanowires using excitation spectroscopy. Applied Physics Letters, 2010, 97, 023106.	1.5	44
105	Growth of Straight InAs-on-GaAs Nanowire Heterostructures. Nano Letters, 2011, 11, 3899-3905.	4.5	44
106	Polarized Light Absorption in Wurtzite InP Nanowire Ensembles. Nano Letters, 2015, 15, 998-1005.	4.5	44
107	Influence of Electrical Design on Coreâ€"Shell GaAs Nanowire Array Solar Cells. IEEE Journal of Photovoltaics, 2015, 5, 854-864.	1.5	44
108	Determination of Youngâ€™s Modulus of Ultrathin Nanomaterials. Nano Letters, 2015, 15, 5279-5283.	4.5	44

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109	Robust Subâ€Monolayers of Co₃O₄ Nanoâ€Islands: A Highly Transparent Morphology for Efficient Water Oxidation Catalysis. Advanced Energy Materials, 2016, 6, 1600697.	10.2	44
110	Review on III-V Semiconductor Single Nanowire-Based Room Temperature Infrared Photodetectors. Materials, 2020, 13, 1400.	1.3	44
111	Passive mode locking of a self-frequency-doubling Yb:YAl_3(BO_3)_4 laser. Optics Letters, 2002, 27, 436.	1.7	43
112	In/sub 0.5/Ga/sub 0.5/As/GaAs quantum dot infrared photodetectors grown by metal-organic chemical vapor deposition. IEEE Electron Device Letters, 2005, 26, 628-630.	2.2	43
113	Formation of Hierarchical InAs Nanoringâ€‰/â€‰GaAs Nanowire Heterostructures. Angewandte Chemie - International Edition, 2009, 48, 780-783.	7.2	43
114	Spatially Resolved Doping Concentration and Nonradiative Lifetime Profiles in Single Si-Doped InP Nanowires Using Photoluminescence Mapping. Nano Letters, 2015, 15, 3017-3023.	4.5	43
115	Identification and modulation of electronic band structures of single-phase Î²-(AlxGa1âˆ’x)2O3 alloys grown by laser molecular beam epitaxy. Applied Physics Letters, 2018, 113, .	1.5	43
116	Engineering IIIâ€“V Semiconductor Nanowires for Device Applications. Advanced Materials, 2020, 32, e1904359.	11.1	43
117	Defect-Free GaAs/AlGaAs Coreâ€“Shell Nanowires on Si Substrates. Crystal Growth and Design, 2011, 11, 3109-3114.	1.4	42
118	Long-Lived Hot Carriers in IIIâ€“V Nanowires. Nano Letters, 2016, 16, 3085-3093.	4.5	42
119	Crystalline WO3 nanowires array sheathed with sputtered amorphous shells for enhanced electrochromic performance. Applied Surface Science, 2019, 498, 143796.	3.1	42
120	Ion-implanted InGaAs single quantum well semiconductor saturable absorber mirrors for passive mode-locking. Journal Physics D: Applied Physics, 2001, 34, 2455-2464.	1.3	41
121	Resonant Excitation and Imaging of Nonequilibrium Exciton Spins in Single Coreâˆ’Shell GaAsâˆ’AlGaAs Nanowires. Nano Letters, 2007, 7, 588-595.	4.5	41
122	Shape Engineering of InP Nanostructures by Selective Area Epitaxy. ACS Nano, 2019, 13, 7261-7269.	7.3	41
123	Proton-irradiation-induced intermixing of InGaAs quantum dots. Applied Physics Letters, 2003, 82, 2053-2055.	1.5	40
124	Tailoring GaAs, InAs, and InGaAs Nanowires for Optoelectronic Device Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 766-778.	1.9	40
125	Polarity-driven Nonuniform Composition in InGaAs Nanowires. Nano Letters, 2013, 13, 5085-5089.	4.5	40
126	Antimony Induced {112}A Faceted Triangular GaAs_{1âˆ’<i>x</i>}Sb<i>_x</i>/InP Core/Shell Nanowires and Their Enhanced Optical Quality. Advanced Functional Materials, 2015, 25, 5300-5308.	7.8	40

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127	Si-implantation activation annealing of GaN up to 1400Â°C. Journal of Electronic Materials, 1998, 27, 179-184.	1.0	39
128	Observation of blue shifts in ZnO/ZnMgO multiple quantum well structures by ion-implantation induced intermixing. Semiconductor Science and Technology, 2006, 21, L25-L28.	1.0	39
129	Evolution of InAs branches in InAsâˆ•GaAs nanowire heterostructures. Applied Physics Letters, 2007, 91, 133115.	1.5	39
130	Three-Dimensional in Situ Photocurrent Mapping for Nanowire Photovoltaics. Nano Letters, 2013, 13, 1405-1409.	4.5	39
131	Anelastic Behavior in GaAs Semiconductor Nanowires. Nano Letters, 2013, 13, 3169-3172.	4.5	39
132	Novel growth and properties of GaAs nanowires on Si substrates. Nanotechnology, 2010, 21, 035604.	1.3	38
133	Three-dimensional electronic spectroscopy of excitons in asymmetric double quantum wells. Journal of Chemical Physics, 2011, 135, 044510.	1.2	38
134	The role of intersubband optical transitions on the electrical properties of InGaAs/GaAs quantum dot solar cells. Progress in Photovoltaics: Research and Applications, 2013, 21, 736-746.	4.4	38
135	Ultrathin Ta₂O₅ electron-selective contacts for high efficiency InP solar cells. Nanoscale, 2019, 11, 7497-7505.	2.8	38
136	Nonlinear optical absorption and temporal response of arsenic- and oxygen-implanted GaAs. Applied Physics Letters, 1999, 74, 1993-1995.	1.5	37
137	Thermal stability of ion-implanted ZnO. Applied Physics Letters, 2005, 87, 231912.	1.5	37
138	Understanding the growth and composition evolution of gold-seeded ternary InGaAs nanowires. Nanoscale, 2015, 7, 16266-16272.	2.8	37
139	On the origin of dislocation generation and annihilation in <i>Î±</i> -Ga2O3 epilayers on sapphire. Applied Physics Letters, 2019, 115, .	1.5	37
140	Polarity driven formation of InAs/GaAs hierarchical nanowire heterostructures. Applied Physics Letters, 2008, 93, 201908.	1.5	36
141	Combined optical trapping and microphotoluminescence of single InP nanowires. Applied Physics Letters, 2009, 95, .	1.5	36
142	Temperature dependence of dark current properties of InGaAs/GaAs quantum dot solar cells. Applied Physics Letters, 2011, 98, .	1.5	36
143	Resolving Stable Axial Trapping Points of Nanowires in an Optical Tweezers Using Photoluminescence Mapping. Nano Letters, 2013, 13, 1185-1191.	4.5	36
144	InxGa1âˆ’xAs nanowires with uniform composition, pure wurtzite crystal phase and taper-free morphology. Nanotechnology, 2015, 26, 205604.	1.3	36

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145	Broadband GaAsSb Nanowire Array Photodetectors for Filter-Free Multispectral Imaging. Nano Letters, 2021, 21, 7388-7395.	4.5	36
146	Suppression of interdiffusion in GaAs/AlGaAs quantum-well structure capped with dielectric films by deposition of gallium oxide. Journal of Applied Physics, 2002, 92, 3579-3583.	1.1	35
147	High-Density, Defect-Free, and Taper-Restrained Epitaxial GaAs Nanowires Induced from Annealed Au Thin Films. Crystal Growth and Design, 2012, 12, 2018-2022.	1.4	35
148	Fabrication of WO3/TiO2 core-shell nanowire arrays: Structure design and high electrochromic performance. Electrochimica Acta, 2020, 330, 135189.	2.6	34
149	Recent Advances in Materials Design Using Atomic Layer Deposition for Energy Applications. Advanced Functional Materials, 2022, 32, .	7.8	34
150	High-pressure high-temperature annealing of ion-implanted GaN films monitored by visible and ultraviolet micro-Raman scattering. Journal of Applied Physics, 2000, 87, 2736-2741.	1.1	33
151	Improvement of the kink-free operation in ridge-waveguide laser diodes due to coupling of the optical field to the metal layers outside the ridge. IEEE Photonics Technology Letters, 2003, 15, 1686-1688.	1.3	33
152	Low loss, thin p-clad 980-nm InGaAs semiconductor laser diodes with an asymmetric structure design. IEEE Journal of Quantum Electronics, 2003, 39, 625-633.	1.0	33
153	A Partially Depleted Absorber Photodiode With Graded Doping Injection Regions. IEEE Photonics Technology Letters, 2004, 16, 2326-2328.	1.3	33
154	Vertically Emitting Indium Phosphide Nanowire Lasers. Nano Letters, 2018, 18, 3414-3420.	4.5	33
155	Role of surface energy in nanowire growth. Journal Physics D: Applied Physics, 2018, 51, 283002.	1.3	33
156	Introduction of TiO₂ in CuI for Its Improved Performance as a p-Type Transparent Conductor. ACS Applied Materials & Interfaces, 2019, 11, 24254-24263.	4.0	33
157	Characterization of deep levels and carrier compensation created by proton irradiation in undoped GaAs. Journal of Applied Physics, 1995, 78, 1481-1487.	1.1	32
158	Multiwavelength Single Nanowire InGaAs/InP Quantum Well Light-Emitting Diodes. Nano Letters, 2019, 19, 3821-3829.	4.5	32
159	Optical properties of erbium-implanted porous silicon microcavities. Applied Physics Letters, 2004, 85, 3363-3365.	1.5	31
160	Growth and properties of IIIâ€“V compound semiconductor heterostructure nanowires. Semiconductor Science and Technology, 2011, 26, 014035.	1.0	31
161	Taper-Free and Vertically Oriented Ge Nanowires on Ge/Si Substrates Grown by a Two-Temperature Process. Crystal Growth and Design, 2012, 12, 135-141.	1.4	31
162	Direct Observation of Charge-Carrier Heating at WZâ€“ZB InP Nanowire Heterojunctions. Nano Letters, 2013, 13, 4280-4287.	4.5	31

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163	The influence of surfaces on the transient terahertz conductivity and electron mobility of GaAs nanowires. Journal Physics D: Applied Physics, 2017, 50, 224001.	1.3	31
164	Large-Scale Statistics for Threshold Optimization of Optically Pumped Nanowire Lasers. Nano Letters, 2017, 17, 4860-4865.	4.5	31
165	Preparation of V₂O₅ dot-decorated WO₃ nanorod arrays for high performance multi-color electrochromic devices. Journal of Materials Chemistry C, 2018, 6, 12206-12216.	2.7	31
166	High-Efficiency Solar Cells from Extremely Low Minority Carrier Lifetime Substrates Using Radial Junction Nanowire Architecture. ACS Nano, 2019, 13, 12015-12023.	7.3	31
167	Design Principles for Fabrication of InP-Based Radial Junction Nanowire Solar Cells Using an Electron Selective Contact. IEEE Journal of Photovoltaics, 2019, 9, 980-991.	1.5	31
168	Evolution of Wurtzite Structured GaAs Shells Around InAs Nanowire Cores. Nanoscale Research Letters, 2009, 4, 846-849.	3.1	30
169	A plasmonic staircase nano-antenna device with strong electric field enhancement for surface enhanced Raman scattering (SERS) applications. Journal Physics D: Applied Physics, 2012, 45, 305102.	1.3	30
170	Electrochemical hydrogenation of mixed-phase TiO2 nanotube arrays enables remarkably enhanced photoelectrochemical water splitting performance. Science Bulletin, 2018, 63, 194-202.	4.3	30
171	Earthâ€Abundant Amorphous Electrocatalysts for Electrochemical Hydrogen Production: A Review. Advanced Energy and Sustainability Research, 2021, 2, 2000071.	2.8	30
172	Anodic-oxide-induced interdiffusion in GaAs/AlGaAs quantum wells. Journal of Applied Physics, 1998, 83, 1305-1311.	1.1	29
173	Proton irradiation-induced intermixing in InGaAs/(Al)GaAs quantum wells and quantum-well lasers. Journal of Applied Physics, 1999, 85, 6786-6789.	1.1	29
174	Impurity free vacancy disordering of InGaAs quantum dots. Journal of Applied Physics, 2004, 96, 7544-7548.	1.1	29
175	Controlling the properties of InGaAs quantum dots by selective-area epitaxy. Applied Physics Letters, 2005, 86, 113102.	1.5	29
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