

# H Hoe Tan

## List of Publications by Year in descending order

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68  
papers

3,987  
citations

126907

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161849

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all docs

68  
docs citations

68  
times ranked

3749  
citing authors

#	ARTICLE	IF	CITATIONS
1	Phase Perfection in Zinc Blende and Wurtzite III <sup>~</sup> V Nanowires Using Basic Growth Parameters. Nano Letters, 2010, 10, 908-915.	9.1	443
2	Twin-Free Uniform Epitaxial GaAs Nanowires Grown by a Two-Temperature Process. Nano Letters, 2007, 7, 921-926.	9.1	297
3	Electronic properties of GaAs, InAs and InP nanowires studied by terahertz spectroscopy. Nanotechnology, 2013, 24, 214006.	2.6	264
4	III <sup>~</sup> V semiconductor nanowires for optoelectronic device applications. Progress in Quantum Electronics, 2011, 35, 23-75.	7.0	256
5	Influence of Nanowire Density on the Shape and Optical Properties of Ternary InGaAs Nanowires. Nano Letters, 2006, 6, 599-604.	9.1	222
6	Transient Terahertz Conductivity of GaAs Nanowires. Nano Letters, 2007, 7, 2162-2165.	9.1	194
7	Carrier Dynamics and Quantum Confinement in type II ZB-WZ InP Nanowire Homostructures. Nano Letters, 2009, 9, 648-654.	9.1	168
8	Ultralow Surface Recombination Velocity in InP Nanowires Probed by Terahertz Spectroscopy. Nano Letters, 2012, 12, 5325-5330.	9.1	158
9	Growth Mechanism of Truncated Triangular III <sup>~</sup> V Nanowires. Small, 2007, 3, 389-393.	10.0	136
10	Unexpected Benefits of Rapid Growth Rate for III <sup>~</sup> V Nanowires. Nano Letters, 2009, 9, 695-701.	9.1	126
11	Direct Measure of Strain and Electronic Structure in GaAs/GaP Core <sup>~</sup> Shell Nanowires. Nano Letters, 2010, 10, 880-886.	9.1	101
12	High Purity GaAs Nanowires Free of Planar Defects: Growth and Characterization. Advanced Functional Materials, 2008, 18, 3794-3800.	14.9	97
13	Novel Growth Phenomena Observed in Axial InAs/GaAs Nanowire Heterostructures. Small, 2007, 3, 1873-1877.	10.0	93
14	Nature of heterointerfaces in GaAs/InAs and InAs/GaAs axial nanowire heterostructures. Applied Physics Letters, 2008, 93, .	3.3	90
15	Characterization of Semiconductor Nanowires Using Optical Tweezers. Nano Letters, 2011, 11, 2375-2381.	9.1	79
16	Electron Mobilities Approaching Bulk Limits in "Surface-Free" GaAs Nanowires. Nano Letters, 2014, 14, 5989-5994.	9.1	79
17	An Ultrafast Switchable Terahertz Polarization Modulator Based on III <sup>~</sup> V Semiconductor Nanowires. Nano Letters, 2017, 17, 2603-2610.	9.1	77
18	Defect-Free <110> Zinc-Blende Structured InAs Nanowires Catalyzed by Palladium. Nano Letters, 2012, 12, 5744-5749.	9.1	62

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19	Effect of a High Density of Stacking Faults on the Young's Modulus of GaAs Nanowires. Nano Letters, 2016, 16, 1911-1916.	9.1	61
20	Strong Carrier Lifetime Enhancement in GaAs Nanowires Coated with Semiconducting Polymer. Nano Letters, 2012, 12, 6293-6301.	9.1	54
21	Evolution of Epitaxial InAs Nanowires on GaAs (111)B. Small, 2009, 5, 366-369.	10.0	51
22	Dynamics of Strongly Degenerate Electron-Hole Plasmas and Excitons in Single InP Nanowires. Nano Letters, 2007, 7, 3383-3387.	9.1	49
23	Emergence of Localized States in Narrow GaAs/AlGaAs Nanowire Quantum Well Tubes. Nano Letters, 2015, 15, 1876-1882.	9.1	49
24	Engineering the Photoresponse of InAs Nanowires. ACS Applied Materials & Interfaces, 2017, 9, 43993-44000.	8.0	49
25	Self-Healing of Fractured GaAs Nanowires. Nano Letters, 2011, 11, 1546-1549.	9.1	48
26	Bandgap Energy of Wurtzite InAs Nanowires. Nano Letters, 2016, 16, 5197-5203.	9.1	47
27	Growth of Straight InAs-on-GaAs Nanowire Heterostructures. Nano Letters, 2011, 11, 3899-3905.	9.1	44
28	Determination of Young's Modulus of Ultrathin Nanomaterials. Nano Letters, 2015, 15, 5279-5283.	9.1	44
29	Formation of Hierarchical InAs Nanoring/GaAs Nanowire Heterostructures. Angewandte Chemie - International Edition, 2009, 48, 780-783.	13.8	43
30	Resonant Excitation and Imaging of Nonequilibrium Exciton Spins in Single Core-Shell GaAs/AlGaAs Nanowires. Nano Letters, 2007, 7, 588-595.	9.1	41
31	Tailoring GaAs, InAs, and InGaAs Nanowires for Optoelectronic Device Applications. IEEE Journal of Selected Topics in Quantum Electronics, 2011, 17, 766-778.	2.9	40
32	Polarity-driven Nonuniform Composition in InGaAs Nanowires. Nano Letters, 2013, 13, 5085-5089.	9.1	40
33	Polarity driven formation of InAs/GaAs hierarchical nanowire heterostructures. Applied Physics Letters, 2008, 93, 201908.	3.3	36
34	Combined optical trapping and microphotoluminescence of single InP nanowires. Applied Physics Letters, 2009, 95, .	3.3	36
35	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.	3.0	31
36	Direct Observation of Charge-Carrier Heating at WZ/ZB InP Nanowire Heterojunctions. Nano Letters, 2013, 13, 4280-4287.	9.1	31

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37	The influence of surfaces on the transient terahertz conductivity and electron mobility of GaAs nanowires. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 224001.	2.8	31
38	Whispering gallery modes in indium oxide hexagonal microcavities. <i>Applied Physics Letters</i> , 2009, 94, 173115.	3.3	29
39	Single-crystalline hexagonal ZnO microtube optical resonators. <i>Journal of Materials Chemistry</i> , 2010, 20, 5510.	6.7	26
40	Atomic-scale observation of parallel development of super elasticity and reversible plasticity in GaAs nanowires. <i>Applied Physics Letters</i> , 2014, 104, .	3.3	26
41	Quantum Confined Stark Effect in a GaAs/AlGaAs Nanowire Quantum Well Tube Device: Probing Exciton Localization. <i>Nano Letters</i> , 2015, 15, 7847-7852.	9.1	21
42	Photomodulated Rayleigh Scattering of Single Semiconductor Nanowires: Probing Electronic Band Structure. <i>Nano Letters</i> , 2011, 11, 4329-4336.	9.1	20
43	Crystallographically driven Au catalyst movement during growth of InAs/GaAs axial nanowire heterostructures. <i>Journal of Applied Physics</i> , 2009, 105, 073503.	2.5	15
44	Low ensemble disorder in quantum well tube nanowires. <i>Nanoscale</i> , 2015, 7, 20531-20538.	5.6	15
45	Taper-free and kinked germanium nanowires grown on silicon via purging and the two-temperature process. <i>Nanotechnology</i> , 2012, 23, 115603.	2.6	13
46	Strain distribution in wrinkled hBN films. <i>Solid State Communications</i> , 2020, 310, 113847.	1.9	12
47	Growth of Catalyst-Free Epitaxial InAs Nanowires on Si Wafers Using Metallic Masks. <i>Nano Letters</i> , 2016, 16, 4189-4193.	9.1	10
48	Vertically oriented epitaxial germanium nanowires on silicon substrates using thin germanium buffer layers. <i>Nanotechnology</i> , 2010, 21, 295602.	2.6	8
49	Thermal Delocalization of Excitons in GaAs/AlGaAs Quantum Well Tube Nanowires. <i>Nano Letters</i> , 2016, 16, 1392-1397.	9.1	8
50	Role of defects and grain boundaries in the thermal response of wafer-scale hBN films. <i>Nanotechnology</i> , 2021, 32, 075702.	2.6	6
51	Impact of invasive metal probes on Hall measurements in semiconductor nanostructures. <i>Nanoscale</i> , 2020, 12, 20317-20325.	5.6	4
52	Postgrowth Shaping and Transport Anisotropy in Two-Dimensional InAs Nanofins. <i>ACS Nano</i> , 2021, 15, 7226-7236.	14.6	3
53	Growth, Structural and Optical Properties of GaAs, InGaAs and AlGaAs Nanowires and Nanowire Heterostructures. <i>Conference Proceedings - Lasers and Electro-Optics Society Annual Meeting-LEOS</i> , 2007, , .	0.0	2
54	Growth, Structural and Optical Properties of III-V Nanowires for Optoelectronic Applications. , 2007, , .		1

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55	Photoluminescence study of optically trapped InP semiconductor nanowires. Proceedings of SPIE, 2010, , .	0.8	1
56	Failure and Formation of Axial Nanowire Heterostructures in Vapor-Liquid-Solid Growth. Materials Research Society Symposia Proceedings, 2007, 1058, 1.	0.1	0
57	Growth, Structural and Optical Properties of High Quality GaAs Nanowires for Optoelectronics. , 2008, , .		0
58	Characterisation of nanostructures via terahertz spectroscopy. , 2010, , .		0
59	Photoluminescence study of optically trapped InP semiconductor nanowires. , 2010, , .		0
60	Photomodulated Rayleigh Scattering from Single Semiconductor Nanowires. Materials Research Society Symposia Proceedings, 2012, 1408, 11.	0.1	0
61	Using Spectroscopic Techniques to Interrogate Trapping Dynamics of Nanoscale Objects. , 2013, , .		0
62	Measuring the electrical properties of semiconductor nanowires using terahertz conductivity spectroscopy. Proceedings of SPIE, 2013, , .	0.8	0
63	Palladium Catalyzed Defect-free <110> Zinc-Blende Structured InAs Nanowires. Materials Research Society Symposia Proceedings, 2013, 1551, 95-99.	0.1	0
64	Probing the critical electronic properties of III&#x2013;V nanowires using optical pump-terahertz probe spectroscopy. , 2013, , .		0
65	Photocurrent spectroscopy of single GaAs/AlGaAs core-multishell nanowire devices. , 2015, , .		0
66	Semiconductor nanowires in terahertz photonics: From spectroscopy to ultrafast nanowire-based devices. , 2017, , .		0
67	Modulation of Terahertz Polarization on Picosecond Timescales using Polymer-Encapsulated Semiconductor Nanowires. , 2017, , .		0
68	Engineering III&#x2013;V Nanowires for Optoelectronics: From Visible to Terahertz. , 2019, , .		0