

Chennupati Jagadish

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862
papers

19,174
citations

64
h-index

102
g-index

1,187
ext. papers

21,922
ext. citations

5.3
avg. IF

6.65
L-index

| # | Paper | IF | Citations |
|-----|--|------|-----------|
| 862 | Optically pumped room-temperature GaAs nanowire lasers. <i>Nature Photonics</i> , 2013 , 7, 963-968 | 33.9 | 415 |
| 861 | Phase perfection in zinc Blende and Wurtzite III-V nanowires using basic growth parameters. <i>Nano Letters</i> , 2010 , 10, 908-15 | 11.5 | 398 |
| 860 | Twin-free uniform epitaxial GaAs nanowires grown by a two-temperature process. <i>Nano Letters</i> , 2007 , 7, 921-6 | 11.5 | 240 |
| 859 | Investigation of Pt/Ti bilayer metallization on silicon for ferroelectric thin film integration. <i>Journal of Applied Physics</i> , 1994 , 75, 232-239 | 2.5 | 240 |
| 858 | Broadband Metamaterial Absorbers. <i>Advanced Optical Materials</i> , 2019 , 7, 1800995 | 8.1 | 236 |
| 857 | Ion-beam-produced structural defects in ZnO. <i>Physical Review B</i> , 2003 , 67, | 3.3 | 228 |
| 856 | Mechanical deformation of single-crystal ZnO. <i>Applied Physics Letters</i> , 2002 , 80, 956-958 | 3.4 | 227 |
| 855 | Effects of interdiffusion on the luminescence of InGaAs/GaAs quantum dots. <i>Applied Physics Letters</i> , 1996 , 69, 1888-1890 | 3.4 | 220 |
| 854 | Carrier lifetime and mobility enhancement in nearly defect-free core-shell nanowires measured using time-resolved terahertz spectroscopy. <i>Nano Letters</i> , 2009 , 9, 3349-53 | 11.5 | 216 |
| 853 | III-V semiconductor nanowires for optoelectronic device applications. <i>Progress in Quantum Electronics</i> , 2011 , 35, 23-75 | 9.1 | 215 |
| 852 | Electronic properties of GaAs, InAs and InP nanowires studied by terahertz spectroscopy. <i>Nanotechnology</i> , 2013 , 24, 214006 | 3.4 | 205 |
| 851 | Influence of nanowire density on the shape and optical properties of ternary InGaAs nanowires. <i>Nano Letters</i> , 2006 , 6, 599-604 | 11.5 | 196 |
| 850 | Review of zincblende ZnO: Stability of metastable ZnO phases. <i>Journal of Applied Physics</i> , 2007 , 102, 071101 | 2.5 | 195 |
| 849 | Polarization and temperature dependence of photoluminescence from zincblende and wurtzite InP nanowires. <i>Applied Physics Letters</i> , 2007 , 91, 263104 | 3.4 | 175 |
| 848 | Nonlinear Generation of Vector Beams From AlGaAs Nanoantennas. <i>Nano Letters</i> , 2016 , 16, 7191-7197 | 11.5 | 168 |
| 847 | Selective-area epitaxy of pure wurtzite InP nanowires: high quantum efficiency and room-temperature lasing. <i>Nano Letters</i> , 2014 , 14, 5206-11 | 11.5 | 160 |
| 846 | Carrier dynamics and quantum confinement in type II ZB-WZ InP nanowire homostructures. <i>Nano Letters</i> , 2009 , 9, 648-54 | 11.5 | 157 |

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| 845 | Damage buildup in GaN under ion bombardment. <i>Physical Review B</i> , 2000 , 62, 7510-7522 | 3.3 | 157 |
| 844 | Transient Terahertz Conductivity of GaAs Nanowires. <i>Nano Letters</i> , 2007 , 7, 2162-2165 | 11.5 | 156 |
| 843 | III-V compound SC for optoelectronic devices. <i>Materials Today</i> , 2009 , 12, 22-32 | 21.8 | 136 |
| 842 | Temperature dependence of photoluminescence from single core-shell GaAs/AlGaAs nanowires. <i>Applied Physics Letters</i> , 2006 , 89, 173126 | 3.4 | 134 |
| 841 | Electro-optical switching by liquid-crystal controlled metasurfaces. <i>Optics Express</i> , 2013 , 21, 8879-85 | 3.3 | 130 |
| 840 | Design and fabrication of silicon nanowires towards efficient solar cells. <i>Nano Today</i> , 2016 , 11, 704-737 | 17.9 | 129 |
| 839 | Ultralow surface recombination velocity in InP nanowires probed by terahertz spectroscopy. <i>Nano Letters</i> , 2012 , 12, 5325-30 | 11.5 | 127 |
| 838 | Nanoindentation of epitaxial GaN films. <i>Applied Physics Letters</i> , 2000 , 77, 3373-3375 | 3.4 | 121 |
| 837 | Growth mechanism of truncated triangular III-V nanowires. <i>Small</i> , 2007 , 3, 389-93 | 11 | 118 |
| 836 | Unexpected benefits of rapid growth rate for III-V nanowires. <i>Nano Letters</i> , 2009 , 9, 695-701 | 11.5 | 114 |
| 835 | Liquid crystal based nonlinear fishnet metamaterials. <i>Applied Physics Letters</i> , 2012 , 100, 121113 | 3.4 | 111 |
| 834 | Effect of ion species on the accumulation of ion-beam damage in GaN. <i>Physical Review B</i> , 2001 , 64, | 3.3 | 101 |
| 833 | Super deformability and Young's modulus of GaAs nanowires. <i>Advanced Materials</i> , 2011 , 23, 1356-60 | 24 | 99 |
| 832 | Optical, structural, and numerical investigations of GaAs/AlGaAs core-multishell nanowire quantum well tubes. <i>Nano Letters</i> , 2013 , 13, 1016-22 | 11.5 | 94 |
| 831 | Chemical origin of the yellow luminescence in GaN. <i>Journal of Applied Physics</i> , 2002 , 91, 5867-5874 | 2.5 | 92 |
| 830 | Nearly intrinsic exciton lifetimes in single twin-free GaAs/AlGaAs core-shell nanowire heterostructures. <i>Applied Physics Letters</i> , 2008 , 93, 053110 | 3.4 | 91 |
| 829 | Thermal stability of ion-implanted hydrogen in ZnO. <i>Applied Physics Letters</i> , 2002 , 81, 3996-3998 | 3.4 | 91 |
| 828 | Direct measure of strain and electronic structure in GaAs/GaP core-shell nanowires. <i>Nano Letters</i> , 2010 , 10, 880-6 | 11.5 | 89 |

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|-----|--|------|----|
| 827 | Removal of surface states and recovery of band-edge emission in InAs nanowires through surface passivation. <i>Nano Letters</i> , 2012 , 12, 3378-84 | 11.5 | 88 |
| 826 | Generation of vacancy-type point defects in single collision cascades during swift-ion bombardment of silicon. <i>Physical Review B</i> , 1997 , 55, 10498-10507 | 3.3 | 88 |
| 825 | Structural characteristics of GaSb/GaAs nanowire heterostructures grown by metal-organic chemical vapor deposition. <i>Applied Physics Letters</i> , 2006 , 89, 231917 | 3.4 | 87 |
| 824 | The effect of V/III ratio and catalyst particle size on the crystal structure and optical properties of InP nanowires. <i>Nanotechnology</i> , 2009 , 20, 225606 | 3.4 | 86 |
| 823 | Nucleation Transitions for InGaAs Islands on Vicinal (100) GaAs. <i>Physical Review Letters</i> , 1997 , 78, 4942-4945 | 4.5 | 86 |
| 822 | Nature of heterointerfaces in GaAs/InAs and InAs/GaAs axial nanowire heterostructures. <i>Applied Physics Letters</i> , 2008 , 93, 101911 | 3.4 | 86 |
| 821 | Novel growth phenomena observed in axial InAs/GaAs nanowire heterostructures. <i>Small</i> , 2007 , 3, 1873-711 | 7.1 | 86 |
| 820 | Multipulse operation of a Ti:sapphire laser mode locked by an ion-implanted semiconductor saturable-absorber mirror. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1999 , 16, 895 | 1.7 | 86 |
| 819 | Atomically thin optical lenses and gratings. <i>Light: Science and Applications</i> , 2016 , 5, e16046 | 16.7 | 85 |
| 818 | Influence of surface passivation on ultrafast carrier dynamics and terahertz radiation generation in GaAs. <i>Applied Physics Letters</i> , 2006 , 89, 232102 | 3.4 | 85 |
| 817 | Contact-induced defect propagation in ZnO. <i>Applied Physics Letters</i> , 2002 , 80, 4537-4539 | 3.4 | 85 |
| 816 | High Purity GaAs Nanowires Free of Planar Defects: Growth and Characterization. <i>Advanced Functional Materials</i> , 2008 , 18, 3794-3800 | 15.6 | 83 |
| 815 | Tantalum Oxide Electron-Selective Heterocontacts for Silicon Photovoltaics and Photoelectrochemical Water Reduction. <i>ACS Energy Letters</i> , 2018 , 3, 125-131 | 20.1 | 83 |
| 814 | Polarization-sensitive terahertz detection by multicontact photoconductive receivers. <i>Applied Physics Letters</i> , 2005 , 86, 254102 | 3.4 | 82 |
| 813 | Basic Properties and Applications of ZnO 2006 , 1-20 | | 82 |
| 812 | Crystalline-to-amorphous transition for Si-ion irradiation of Si(100). <i>Physical Review B</i> , 1991 , 44, 9118-9123 | 3.3 | 82 |
| 811 | Enhanced minority carrier lifetimes in GaAs/AlGaAs core-shell nanowires through shell growth optimization. <i>Nano Letters</i> , 2013 , 13, 5135-40 | 11.5 | 79 |
| 810 | Single nanowire photoconductive terahertz detectors. <i>Nano Letters</i> , 2015 , 15, 206-10 | 11.5 | 78 |

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| 809 | Annealing kinetics of vacancy-related defects in low-dose MeV self-ion-implanted n-type silicon. <i>Physical Review B</i> , 2001 , 64, | 3.3 | 78 |
| 808 | Identifying carbon as the source of visible single-photon emission from hexagonal boron nitride. <i>Nature Materials</i> , 2021 , 20, 321-328 | 27 | 78 |
| 807 | Polarity-driven 3-fold symmetry of GaAs/AlGaAs core multishell nanowires. <i>Nano Letters</i> , 2013 , 13, 3742-3748 | 11.5 | 77 |
| 806 | Nonlinear Optical Magnetism Revealed by Second-Harmonic Generation in Nanoantennas. <i>Nano Letters</i> , 2017 , 17, 3914-3918 | 11.5 | 76 |
| 805 | Lattice damage produced in GaN by swift heavy ions. <i>Journal of Applied Physics</i> , 2004 , 95, 5360-5365 | 2.5 | 76 |
| 804 | Phase separation induced by Au catalysts in ternary InGaAs nanowires. <i>Nano Letters</i> , 2013 , 13, 643-50 | 11.5 | 75 |
| 803 | Ion-beam-induced dissociation and bubble formation in GaN. <i>Applied Physics Letters</i> , 2000 , 77, 3577-3579 | 3.4 | 70 |
| 802 | Ion-beam-induced porosity of GaN. <i>Applied Physics Letters</i> , 2000 , 77, 1455-1457 | 3.4 | 68 |
| 801 | Large energy shifts in GaAs-AlGaAs quantum wells by proton irradiation-induced intermixing. <i>Applied Physics Letters</i> , 1996 , 68, 2401-2403 | 3.4 | 68 |
| 800 | Twinning superlattice formation in GaAs nanowires. <i>ACS Nano</i> , 2013 , 7, 8105-14 | 16.7 | 66 |
| 799 | Design and Room-Temperature Operation of GaAs/AlGaAs Multiple Quantum Well Nanowire Lasers. <i>Nano Letters</i> , 2016 , 16, 5080-6 | 11.5 | 66 |
| 798 | Electron mobilities approaching bulk limits in "surface-free" GaAs nanowires. <i>Nano Letters</i> , 2014 , 14, 5989-94 | 11.5 | 64 |
| 797 | Nonlinear Absorption Applications of CH ₃ NH ₃ PbBr ₃ Perovskite Crystals. <i>Advanced Functional Materials</i> , 2018 , 28, 1707175 | 15.6 | 63 |
| 796 | Long minority carrier lifetime in Au-catalyzed GaAs/Al _x Ga _{1-x} As core-shell nanowires. <i>Applied Physics Letters</i> , 2012 , 101, 023111 | 3.4 | 63 |
| 795 | The influence of pearlite on Barkhausen noise generation in plain carbon steels. <i>Acta Metallurgica Et Materialia</i> , 1991 , 39, 1555-1562 | | 63 |
| 794 | Electrical isolation of ZnO by ion bombardment. <i>Applied Physics Letters</i> , 2002 , 81, 3350-3352 | 3.4 | 62 |
| 793 | Implant isolation of ZnO. <i>Journal of Applied Physics</i> , 2003 , 93, 2972-2976 | 2.5 | 61 |
| 792 | Tunable Polarity in a III-V Nanowire by Droplet Wetting and Surface Energy Engineering. <i>Advanced Materials</i> , 2015 , 27, 6096-103 | 24 | 60 |

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| 791 | Mode Profiling of Semiconductor Nanowire Lasers. <i>Nano Letters</i> , 2015 , 15, 5342-8 | 11.5 | 59 |
| 790 | Distinct photocurrent response of individual GaAs nanowires induced by n-type doping. <i>ACS Nano</i> , 2012 , 6, 6005-13 | 16.7 | 59 |
| 789 | Mechanical properties of ZnO epitaxial layers grown on a- and c-axis sapphire. <i>Applied Physics Letters</i> , 2005 , 86, 203105 | 3.4 | 59 |
| 788 | Defect-free zinc-blende structured InAs nanowires catalyzed by palladium. <i>Nano Letters</i> , 2012 , 12, 5744-9 | 11.5 | 58 |
| 787 | Doping-enhanced radiative efficiency enables lasing in unpassivated GaAs nanowires. <i>Nature Communications</i> , 2016 , 7, 11927 | 17.4 | 57 |
| 786 | Characterization of semiconductor nanowires using optical tweezers. <i>Nano Letters</i> , 2011 , 11, 2375-81 | 11.5 | 57 |
| 785 | Generation of point defects in crystalline silicon by MeV heavy ions: Dose rate and temperature dependence. <i>Physical Review Letters</i> , 1993 , 71, 1860-1863 | 7.4 | 56 |
| 784 | Ion damage buildup and amorphization processes in Al _x Ga _{1-x} As. <i>Journal of Applied Physics</i> , 1995 , 77, 87-94 | 2.5 | 54 |
| 783 | Point defects in MeV ion-implanted silicon studied by deep level transient spectroscopy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 106, 183-190 | 1.2 | 53 |
| 782 | Dual-channel spontaneous emission of quantum dots in magnetic metamaterials. <i>Nature Communications</i> , 2013 , 4, 2949 | 17.4 | 52 |
| 781 | Strong carrier lifetime enhancement in GaAs nanowires coated with semiconducting polymer. <i>Nano Letters</i> , 2012 , 12, 6293-301 | 11.5 | 52 |
| 780 | Picosecond carrier lifetime in GaAs implanted with high doses of As ions: An alternative material to low-temperature GaAs for optoelectronic applications. <i>Applied Physics Letters</i> , 1995 , 66, 3304-3306 | 3.4 | 52 |
| 779 | An Ultrafast Switchable Terahertz Polarization Modulator Based on III-V Semiconductor Nanowires. <i>Nano Letters</i> , 2017 , 17, 2603-2610 | 11.5 | 51 |
| 778 | Room temperature GaAsSb single nanowire infrared photodetectors. <i>Nanotechnology</i> , 2015 , 26, 445202 | 3.4 | 50 |
| 777 | Magnetism of Co-doped ZnO epitaxially grown on a ZnO substrate. <i>Physical Review B</i> , 2012 , 85, | 3.3 | 49 |
| 776 | Origin of stress in radio frequency magnetron sputtered zinc oxide thin films. <i>Journal of Applied Physics</i> , 2011 , 109, 064905 | 2.5 | 49 |
| 775 | Suppression of interdiffusion in InGaAs/GaAs quantum dots using dielectric layer of titanium dioxide. <i>Applied Physics Letters</i> , 2003 , 82, 2613-2615 | 3.4 | 49 |
| 774 | Ion-beam-produced damage and its stability in AlN films. <i>Journal of Applied Physics</i> , 2002 , 92, 3554-3558 | 2.5 | 49 |

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| 773 | Effect of a High Density of Stacking Faults on the Young's Modulus of GaAs Nanowires. <i>Nano Letters</i> , 2016 , 16, 1911-6 | 11.5 | 48 |
| 772 | Room temperature photocurrent spectroscopy of single zincblende and wurtzite InP nanowires. <i>Applied Physics Letters</i> , 2009 , 94, 193115 | 3.4 | 48 |
| 771 | Nanosheets-Based Rhombohedral In ₂ O ₃ 3D Hierarchical Microspheres: Synthesis, Growth Mechanism, and Optical Properties. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 10511-10516 | 3.8 | 47 |
| 770 | Electrical isolation of GaN by MeV ion irradiation. <i>Applied Physics Letters</i> , 2001 , 78, 943-945 | 3.4 | 47 |
| 769 | III-V Semiconductor Single Nanowire Solar Cells: A Review. <i>Advanced Materials Technologies</i> , 2018 , 3, 1800005 | 6.8 | 47 |
| 768 | Simultaneous Selective-Area and Vapor-Liquid-Solid Growth of InP Nanowire Arrays. <i>Nano Letters</i> , 2016 , 16, 4361-7 | 11.5 | 46 |
| 767 | Controlling the morphology, composition and crystal structure in gold-seeded GaAs(1-x)Sb(x) nanowires. <i>Nanoscale</i> , 2015 , 7, 4995-5003 | 7.7 | 46 |
| 766 | Chemical states of nitrogen in ZnO studied by near-edge X-ray absorption fine structure and core-level photoemission spectroscopies. <i>Surface Science</i> , 2006 , 600, L81-L85 | 1.8 | 46 |
| 765 | Dynamic annealing in III-nitrides under ion bombardment. <i>Journal of Applied Physics</i> , 2004 , 95, 3048-3054 | 4.5 | 46 |
| 764 | Carrier dynamics in ion-implanted GaAs studied by simulation and observation of terahertz emission. <i>Physical Review B</i> , 2004 , 70, | 3.3 | 46 |
| 763 | Photoluminescence, deep level transient spectroscopy and transmission electron microscopy measurements on MeV self-ion implanted and annealed n-type silicon. <i>Journal of Applied Physics</i> , 2000 , 88, 2309-2317 | 2.5 | 46 |
| 762 | Nanowires grown on InP (100): growth directions, facets, crystal structures, and relative yield control. <i>ACS Nano</i> , 2014 , 8, 6945-54 | 16.7 | 45 |
| 761 | Optical design of nanowire absorbers for wavelength selective photodetectors. <i>Scientific Reports</i> , 2015 , 5, 15339 | 4.9 | 45 |
| 760 | Evolution of epitaxial InAs nanowires on GaAs 111B. <i>Small</i> , 2009 , 5, 366-9 | 11 | 45 |
| 759 | Ion-implanted In _{0.53} Ga _{0.47} As for ultrafast optoelectronic applications. <i>Applied Physics Letters</i> , 2003 , 82, 3913-3915 | 3.4 | 45 |
| 758 | Strong surface disorder and loss of N produced by ion bombardment of GaN. <i>Applied Physics Letters</i> , 2000 , 76, 3899-3901 | 3.4 | 45 |
| 757 | Excited State Biexcitons in Atomically Thin MoSe. <i>ACS Nano</i> , 2017 , 11, 7468-7475 | 16.7 | 44 |
| 756 | Self-healing of fractured GaAs nanowires. <i>Nano Letters</i> , 2011 , 11, 1546-9 | 11.5 | 44 |

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| 755 | Dynamics of strongly degenerate electron-hole plasmas and excitons in single InP nanowires. <i>Nano Letters</i> , 2007 , 7, 3383-7 | 11.5 | 44 |
| 754 | . <i>IEEE Transactions on Magnetics</i> , 1990 , 26, 1160-1163 | 2 | 44 |
| 753 | Engineering Highly Interconnected Neuronal Networks on Nanowire Scaffolds. <i>Nano Letters</i> , 2017 , 17, 3369-3375 | 11.5 | 43 |
| 752 | Growth temperature and V/III ratio effects on the morphology and crystal structure of InP nanowires. <i>Journal Physics D: Applied Physics</i> , 2010 , 43, 445402 | 3 | 43 |
| 751 | Mechanisms of electrical isolation in O ⁺ -irradiated ZnO. <i>Physical Review B</i> , 2008 , 78, | 3.3 | 43 |
| 750 | Deformation behavior of ion-beam-modified GaN. <i>Applied Physics Letters</i> , 2001 , 78, 156-158 | 3.4 | 43 |
| 749 | Efficiency enhancement of axial junction InP single nanowire solar cells by dielectric coating. <i>Nano Energy</i> , 2016 , 28, 106-114 | 17.1 | 43 |
| 748 | Strengthening brittle semiconductor nanowires through stacking faults: insights from in situ mechanical testing. <i>Nano Letters</i> , 2013 , 13, 4369-73 | 11.5 | 42 |
| 747 | Probing valence band structure in wurtzite InP nanowires using excitation spectroscopy. <i>Applied Physics Letters</i> , 2010 , 97, 023106 | 3.4 | 42 |
| 746 | Tilted response of fishnet metamaterials at near-infrared optical wavelengths. <i>Physical Review B</i> , 2010 , 81, | 3.3 | 42 |
| 745 | Nonlinear optical processes in optically trapped InP nanowires. <i>Nano Letters</i> , 2011 , 11, 4149-53 | 11.5 | 42 |
| 744 | Ion-beam-defect processes in group-III nitrides and ZnO. <i>Vacuum</i> , 2004 , 73, 93-104 | 3.7 | 42 |
| 743 | Emergence of localized states in narrow GaAs/AlGaAs nanowire quantum well tubes. <i>Nano Letters</i> , 2015 , 15, 1876-82 | 11.5 | 41 |
| 742 | Tailoring Second-Harmonic Emission from (111)-GaAs Nanoantennas. <i>Nano Letters</i> , 2019 , 19, 3905-3911 | 11.5 | 40 |
| 741 | Temperature Dependence of Interband Transitions in Wurtzite InP Nanowires. <i>ACS Nano</i> , 2015 , 9, 4277-87.7 | | 40 |
| 740 | Growth of straight InAs-on-GaAs nanowire heterostructures. <i>Nano Letters</i> , 2011 , 11, 3899-905 | 11.5 | 40 |
| 739 | Defect-Free GaAs/AlGaAs Core-Shell Nanowires on Si Substrates. <i>Crystal Growth and Design</i> , 2011 , 11, 3109-3114 | 3.5 | 40 |
| 738 | Formation of hierarchical InAs nanoring/GaAs nanowire heterostructures. <i>Angewandte Chemie - International Edition</i> , 2009 , 48, 780-3 | 16.4 | 40 |

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| 737 | Spontaneous emission of guided polaritons by quantum dot coupled to metallic nanowire: beyond the dipole approximation. <i>Optics Express</i> , 2009 , 17, 17570-81 | 3.3 | 40 |
| 736 | Photoconductive response correction for detectors of terahertz radiation. <i>Journal of Applied Physics</i> , 2008 , 104, 053113 | 2.5 | 40 |
| 735 | In/sub 0.5/Ga/sub 0.5/As/GaAs quantum dot infrared photodetectors grown by metal-organic chemical vapor deposition. <i>IEEE Electron Device Letters</i> , 2005 , 26, 628-630 | 4.4 | 40 |
| 734 | InGaAs quantum dots grown with GaP strain compensation layers. <i>Journal of Applied Physics</i> , 2004 , 95, 5710-5714 | 2.5 | 40 |
| 733 | Hydrogen incorporation, diffusivity and evolution in bulk ZnO. <i>Solid-State Electronics</i> , 2003 , 47, 2255-2259 | 7 | 40 |
| 732 | Dynamic annealing in ion implanted SiC: Flux versus temperature dependence. <i>Journal of Applied Physics</i> , 2003 , 94, 7112-7115 | 2.5 | 40 |
| 731 | Understanding the true shape of Au-catalyzed GaAs nanowires. <i>Nano Letters</i> , 2014 , 14, 5865-72 | 11.5 | 39 |
| 730 | Polarity-driven nonuniform composition in InGaAs nanowires. <i>Nano Letters</i> , 2013 , 13, 5085-9 | 11.5 | 39 |
| 729 | Integration of Semiconductor Nanowire Lasers with Polymeric Waveguide Devices on a Mechanically Flexible Substrate. <i>Nano Letters</i> , 2017 , 17, 5990-5994 | 11.5 | 39 |
| 728 | Structural, compositional and optical properties of PECVD silicon nitride layers. <i>Journal Physics D: Applied Physics</i> , 2012 , 45, 445301 | 3 | 39 |
| 727 | Effects of rapid thermal annealing on device characteristics of InGaAs/GaAs quantum dot infrared photodetectors. <i>Journal of Applied Physics</i> , 2006 , 99, 114517 | 2.5 | 39 |
| 726 | Flow modulation epitaxy of hexagonal boron nitride. <i>2D Materials</i> , 2018 , 5, 045018 | 5.9 | 38 |
| 725 | Polarized light absorption in wurtzite InP nanowire ensembles. <i>Nano Letters</i> , 2015 , 15, 998-1005 | 11.5 | 38 |
| 724 | Electron-hole recombination properties of In _{0.5} Ga _{0.5} As/GaAs quantum dot solar cells and the influence on the open circuit voltage. <i>Applied Physics Letters</i> , 2010 , 97, 123505 | 3.4 | 38 |
| 723 | An ion-implanted InP receiver for polarization resolved terahertz spectroscopy. <i>Optics Express</i> , 2007 , 15, 7047-57 | 3.3 | 38 |
| 722 | Ion mass effect on vacancy-related deep levels in Si induced by ion implantation. <i>Physical Review B</i> , 2002 , 65, | 3.3 | 38 |
| 721 | Nonlinear frequency conversion in optical nanoantennas and metasurfaces: materials evolution and fabrication. <i>Opto-Electronic Advances</i> , 2018 , 1, 18002101-18002112 | 6.5 | 38 |
| 720 | Robust Sub-Monolayers of Co ₃ O ₄ Nano-Islands: A Highly Transparent Morphology for Efficient Water Oxidation Catalysis. <i>Advanced Energy Materials</i> , 2016 , 6, 1600697 | 21.8 | 38 |

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| 719 | Spatially Resolved Doping Concentration and Nonradiative Lifetime Profiles in Single Si-Doped InP Nanowires Using Photoluminescence Mapping. <i>Nano Letters</i> , 2015 , 15, 3017-23 | 11.5 | 37 |
| 718 | Bandgap Energy of Wurtzite InAs Nanowires. <i>Nano Letters</i> , 2016 , 16, 5197-203 | 11.5 | 37 |
| 717 | Anelastic behavior in GaAs semiconductor nanowires. <i>Nano Letters</i> , 2013 , 13, 3169-72 | 11.5 | 37 |
| 716 | Lasers and photodetectors for mid-infrared 2B Th applications. <i>Journal of Applied Physics</i> , 2008 , 104, 091101 | 2.5 | 37 |
| 715 | Evolution of InAs branches in InAs/GaAs nanowire heterostructures. <i>Applied Physics Letters</i> , 2007 , 91, 133115 | 3.4 | 37 |
| 714 | Observation of blue shifts in ZnO/ZnMgO multiple quantum well structures by ion-implantation induced intermixing. <i>Semiconductor Science and Technology</i> , 2006 , 21, L25-L28 | 1.8 | 37 |
| 713 | Effects of excitation density on cathodoluminescence from GaN. <i>Applied Physics Letters</i> , 2001 , 79, 2154-2156 | 3.1 | 37 |
| 712 | Three-dimensional cross-nanowire networks recover full terahertz state. <i>Science</i> , 2020 , 368, 510-513 | 33.3 | 36 |
| 711 | Transfer Printing of Semiconductor Nanowires with Lasing Emission for Controllable Nanophotonic Device Fabrication. <i>ACS Nano</i> , 2016 , 10, 3951-8 | 16.7 | 36 |
| 710 | Wavelength shifting in GaAs quantum well lasers by proton irradiation. <i>Applied Physics Letters</i> , 1997 , 71, 2680-2682 | 3.4 | 36 |
| 709 | Polarity driven formation of InAs/GaAs hierarchical nanowire heterostructures. <i>Applied Physics Letters</i> , 2008 , 93, 201908 | 3.4 | 36 |
| 708 | Thermal stability of ion-implanted ZnO. <i>Applied Physics Letters</i> , 2005 , 87, 231912 | 3.4 | 36 |
| 707 | Observation of enhanced defect emission and excitonic quenching from spherically indented ZnO. <i>Applied Physics Letters</i> , 2006 , 89, 082102 | 3.4 | 36 |
| 706 | Proton-irradiation-induced intermixing of InGaAs quantum dots. <i>Applied Physics Letters</i> , 2003 , 82, 2053-2055 | 3.4 | 36 |
| 705 | Determination of Young's Modulus of Ultrathin Nanomaterials. <i>Nano Letters</i> , 2015 , 15, 5279-83 | 11.5 | 35 |
| 704 | Giant optical pathlength enhancement in plasmonic thin film solar cells using core-shell nanoparticles. <i>Journal Physics D: Applied Physics</i> , 2018 , 51, 295106 | 3 | 35 |
| 703 | Resonant excitation and imaging of nonequilibrium exciton spins in single core-shell GaAs-AlGaAs nanowires. <i>Nano Letters</i> , 2007 , 7, 588-95 | 11.5 | 35 |
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