

# Li-Chyong Chen

## List of Publications by Year in descending order

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444  
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22,057  
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h-index

13758  
129  
g-index

447  
all docs

447  
docs citations

447  
times ranked

25366  
citing authors

| #  | ARTICLE   | IF   | CITATIONS |
|----|---|------|-----------|
| 1  | Improved broadband and quasi-omnidirectional anti-reflection properties with biomimetic silicon nanostructures. <i>Nature Nanotechnology</i> , 2007, 2, 770-774.  | 15.6 | 1,022     |
| 2  | Tunable Photoluminescence from Graphene Oxide. <i>Angewandte Chemie - International Edition</i> , 2012, 51, 6662-6666.  | 7.2  | 584       |
| 3  | Anti-reflecting and photonic nanostructures. <i>Materials Science and Engineering Reports</i> , 2010, 69, 1-35.   | 14.8 | 531       |
| 4  | Conducting polymer-based flexible supercapacitor. <i>Energy Science and Engineering</i> , 2015, 3, 2-26.  | 1.9  | 516       |
| 5  | Catalytic Growth and Characterization of Gallium Nitride Nanowires. <i>Journal of the American Chemical Society</i> , 2001, 123, 2791-2798.   | 6.6  | 504       |
| 6  | Graphene oxide as a promising photocatalyst for CO <sub>2</sub> to methanol conversion. <i>Nanoscale</i> , 2013, 5, 262-268.  | 2.8  | 424       |
| 7  | DNA-Gold Nanorod Conjugates for Remote Control of Localized Gene Expression by near Infrared Irradiation. <i>Journal of the American Chemical Society</i> , 2006, 128, 3709-3715.                                 | 6.6  | 411       |
| 8  | Carbon-doped SnS <sub>2</sub> nanostructure as a high-efficiency solar fuel catalyst under visible light. <i>Nature Communications</i> , 2018, 9, 169.  | 5.8  | 350       |
| 9  | Heterostructures of ZnO-Zn coaxial nanocables and ZnO nanotubes. <i>Applied Physics Letters</i> , 2002, 81, 1312-1314.  | 1.5  | 346       |
| 10 | Controlling the Oxidation State of the Cu Electrode and Reaction Intermediates for Electrochemical CO <sub>2</sub> Reduction to Ethylene. <i>Journal of the American Chemical Society</i> , 2020, 142, 2857-2867. | 6.6  | 342       |
| 11 | Flexible supercapacitor based on polyaniline nanowires/carbon cloth with both high gravimetric and area-normalized capacitance. <i>Journal of Power Sources</i> , 2010, 195, 4418-4422.                           | 4.0  | 312       |
| 12 | Highly Efficient Visible Light Photocatalytic Reduction of CO <sub>2</sub> to Hydrocarbon Fuels by Cu-Nanoparticle Decorated Graphene Oxide. <i>Nano Letters</i> , 2014, 14, 6097-6103.                           | 4.5  | 312       |
| 13 | Polymer Structure and Solvent Effects on the Selective Dispersion of Single-Walled Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2008, 130, 3543-3553.                                      | 6.6  | 287       |
| 14 | Elastic, mechanical, and thermal properties of nanocrystalline diamond films. <i>Journal of Applied Physics</i> , 2003, 93, 2164-2171.  | 1.1  | 285       |
| 15 | Calorimetric evidence for the micro-quasicrystalline structure of 'amorphous' Al/transition metal alloys. <i>Nature</i> , 1988, 336, 366-368.   | 13.7 | 279       |
| 16 | Effect of chemical doping of boron and nitrogen on the electronic, optical, and electrochemical properties of carbon nanotubes. <i>Progress in Materials Science</i> , 2013, 58, 565-635.                         | 16.0 | 276       |
| 17 | Photosensitive gold-nanoparticle-embedded dielectric nanowires. <i>Nature Materials</i> , 2006, 5, 102-106.   | 13.3 | 258       |
| 18 | Band Gap Engineering of Chemical Vapor Deposited Graphene by <i>in Situ</i> BN Doping. <i>ACS Nano</i> , 2013, 7, 1333-1341.  | 7.3  | 252       |

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|----|--|-----|-----------|
| 19 | Analysis of calorimetric measurements of grain growth. Journal of Applied Physics, 1991, 69, 679-688.  | 1.1 | 248       |
| 20 | Complete Corrosion Inhibition through Graphene Defect Passivation. ACS Nano, 2014, 8, 443-448.   | 7.3 | 225       |
| 21 | Highly flexible supercapacitors with manganese oxide nanosheet/carbon cloth electrode. Electrochimica Acta, 2011, 56, 7124-7130.   | 2.6 | 224       |
| 22 | Ultrafine Platinum Nanoparticles Uniformly Dispersed on Arrayed CNx Nanotubes with High Electrochemical Activity. Chemistry of Materials, 2005, 17, 3749-3753.                           | 3.2 | 206       |
| 23 | Reversible phase transformation of MnO <sub>2</sub> nanosheets in an electrochemical capacitor investigated by in situ Raman spectroscopy. Chemical Communications, 2011, 47, 1252-1254. | 2.2 | 196       |
| 24 | Selective-area growth of indium nitride nanowires on gold-patterned Si(100) substrates. Applied Physics Letters, 2002, 81, 22-24.  | 1.5 | 195       |
| 25 | Top Laminated Graphene Electrode in a Semitransparent Polymer Solar Cell by Simultaneous Thermal Annealing/Releasing Method. ACS Nano, 2011, 5, 6564-6570.                               | 7.3 | 188       |
| 26 | 5nm ruthenium thin film as a directly plateable copper diffusion barrier. Applied Physics Letters, 2005, 86, 083104.   | 1.5 | 167       |
| 27 | Crystalline silicon carbon nitride: A wide band gap semiconductor. Applied Physics Letters, 1998, 72, 2463-2465.   | 1.5 | 162       |
| 28 | Anomalous blueshift in emission spectra of ZnO nanorods with sizes beyond quantum confinement regime. Applied Physics Letters, 2006, 88, 241905.   | 1.5 | 158       |
| 29 | Generally Applicable Self-Masked Dry Etching Technique for Nanotip Array Fabrication. Nano Letters, 2004, 4, 471-475.  | 4.5 | 147       |
| 30 | Novel Iron Oxyhydroxide Lepidocrocite Nanosheet as Ultrahigh Power Density Anode Material for Asymmetric Supercapacitors. Small, 2014, 10, 3803-3810.                                    | 5.2 | 143       |
| 31 | Synthesis and Characterization of Core-Shell GaP@GaN and GaN@GaP Nanowires. Nano Letters, 2003, 3, 537-541.  | 4.5 | 136       |
| 32 | Electroluminescence from ZnO nanowire/polymer composite p-n junction. Applied Physics Letters, 2006, 88, 173503.   | 1.5 | 135       |
| 33 | Ultrahigh photocurrent gain in m-axial GaN nanowires. Applied Physics Letters, 2007, 91, .   | 1.5 | 134       |
| 34 | High performance of low electrocatalysts loading on CNT directly grown on carbon cloth for DMFC. Journal of Power Sources, 2007, 171, 55-62.   | 4.0 | 129       |
| 35 | Ultrasensitive in Situ Label-Free DNA Detection Using a GaN Nanowire-Based Extended-Gate Field-Effect-Transistor Sensor. Analytical Chemistry, 2011, 83, 1938-1943.                      | 3.2 | 129       |
| 36 | Visible-light-driven photocatalytic carbon-doped porous ZnO nanoarchitectures for solar water-splitting. Nanoscale, 2012, 4, 6515.   | 2.8 | 126       |

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|----|---|------|-----------|
| 37 | High-cell-voltage supercapacitor of carbon nanotube/carbon cloth operating in neutral aqueous solution. <i>Journal of Materials Chemistry</i> , 2012, 22, 3383.   | 6.7  | 126       |
| 38 | Quantum Confinement Effect in Diamond Nanocrystals Studied by X-Ray-Absorption Spectroscopy. <i>Physical Review Letters</i> , 1999, 82, 5377-5380.  | 2.9  | 118       |
| 39 | Ni Nanocluster Modified Black TiO <sub>2</sub> with Dual Active Sites for Selective Photocatalytic CO <sub>2</sub> Reduction. <i>Small</i> , 2018, 14, 1702928.   | 5.2  | 116       |
| 40 | Vitalizing fuel cells with vitamins: pyrolyzed vitamin B12 as a non-precious catalyst for enhanced oxygen reduction reaction of polymer electrolyte fuel cells. <i>Energy and Environmental Science</i> , 2012, 5, 5305-5314.                                       | 15.6 | 115       |
| 41 | Boosting photocatalytic CO <sub>2</sub> reduction in a ZnS/ZnIn <sub>2</sub> S <sub>4</sub> heterostructure through strain-induced direct Z-scheme and a mechanistic study of molecular CO <sub>2</sub> interaction thereon. <i>Nano Energy</i> , 2022, 93, 106809. | 8.2  | 110       |
| 42 | Binder-free rice husk-based silicon-graphene composite as energy efficient Li-ion battery anodes. <i>Journal of Materials Chemistry A</i> , 2014, 2, 13437-13441.   | 5.2  | 109       |
| 43 | Improved Solar-Driven Photocatalytic Activity of Hybrid Graphene Quantum Dots/ZnO Nanowires: A Direct Z-Scheme Mechanism. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 367-375.  | 3.2  | 109       |
| 44 | Formation of crystalline silicon carbon nitride films by microwave plasma-enhanced chemical vapor deposition. <i>Diamond and Related Materials</i> , 1996, 5, 514-518.  | 1.8  | 104       |
| 45 | Plasmonic Ag@Ag <sub>3</sub> (PO <sub>4</sub> ) <sub>1-x</sub> nanoparticle photosensitized ZnO nanorod-array photoanodes for water oxidation. <i>Energy and Environmental Science</i> , 2012, 5, 8917.   | 15.6 | 103       |
| 46 | The affinity of Si-N and Si-C bonding in amorphous silicon carbon nitride (a-SiCN) thin film. <i>Diamond and Related Materials</i> , 2005, 14, 1126-1130.   | 1.8  | 102       |
| 47 | High photocurrent gain in SnO <sub>2</sub> nanowires. <i>Applied Physics Letters</i> , 2008, 93, 112115.  | 1.5  | 101       |
| 48 | Growth of Single-Crystalline Wurtzite Aluminum Nitride Nanotips with a Self-Selective Apex Angle. <i>Advanced Functional Materials</i> , 2005, 15, 781-786.   | 7.8  | 98        |
| 49 | Pyrolyzed Cobalt Corrole as a Potential Non-Precious Catalyst for Fuel Cells. <i>Advanced Functional Materials</i> , 2012, 22, 3500-3508.   | 7.8  | 97        |
| 50 | Atomic-Scale Deformation in N-Doped Carbon Nanotubes. <i>Journal of the American Chemical Society</i> , 2006, 128, 8368-8369.   | 6.6  | 96        |
| 51 | Multi-porous Co <sub>3</sub> O <sub>4</sub> nanoflakes @ sponge-like few-layer partially reduced graphene oxide hybrids: towards highly stable asymmetric supercapacitors. <i>Journal of Materials Chemistry A</i> , 2017, 5, 12569-12577.                          | 5.2  | 96        |
| 52 | Surface-Enhanced Raman Spectroscopy Using Self-Assembled Silver Nanoparticles on Silicon Nanotips. <i>Chemistry of Materials</i> , 2005, 17, 553-559.   | 3.2  | 93        |
| 53 | Low methanol-permeable polyaniline/Nafion composite membrane for direct methanol fuel cells. <i>Journal of Power Sources</i> , 2009, 190, 279-284.  | 4.0  | 91        |
| 54 | Birnessite-type manganese oxides nanosheets with hole acceptor assisted photoelectrochemical activity in response to visible light. <i>Journal of Materials Chemistry</i> , 2012, 22, 2733-2739.  | 6.7  | 89        |

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|----|--|-----|-----------|
| 55 | Beaded stream-like CoSe <sub>2</sub> nanoneedle array for efficient hydrogen evolution electrocatalysis. Journal of Materials Chemistry A, 2016, 4, 4553-4561.                     | 5.2 | 89        |
| 56 | SiC-capped nanotip arrays for field emission with ultralow turn-on field. Applied Physics Letters, 2003, 83, 1420-1422.  | 1.5 | 88        |
| 57 | Growth mechanism, structure and IR photoluminescence studies of indium nitride nanorods. Journal of Crystal Growth, 2004, 269, 87-94.  | 0.7 | 88        |
| 58 | Correlating defect density with carrier mobility in large-scaled graphene films: Raman spectral signatures for the estimation of defect density. Nanotechnology, 2010, 21, 465705. | 1.3 | 86        |
| 59 | Design for Approaching Cicada-Wing Reflectance in Low- and High-Index Biomimetic Nanostructures. ACS Nano, 2015, 9, 301-311.   | 7.3 | 86        |
| 60 | Crystalline SiCN: a hard material rivals to cubic BN. Thin Solid Films, 1999, 355-356, 112-116.  | 0.8 | 84        |
| 61 | Arrayed CNx NTs/RuO <sub>2</sub> nanocomposites directly grown on Ti-buffered Si substrate for supercapacitor applications. Electrochemistry Communications, 2007, 9, 239-244.     | 2.3 | 84        |
| 62 | Label-Free Dual Sensing of DNA Molecules Using GaN Nanowires. Analytical Chemistry, 2009, 81, 36-42.   | 3.2 | 84        |
| 63 | Electroluminescence from ZnO/Si-Nanotips Light-Emitting Diodes. Nano Letters, 2009, 9, 1839-1843.  | 4.5 | 83        |
| 64 | Field emission from quasi-aligned SiCN nanorods. Applied Physics Letters, 2000, 76, 2630-2632.   | 1.5 | 81        |
| 65 | Composition of SiCN crystals consisting of a predominantly carbon-nitride network. Journal of Materials Research, 1997, 12, 322-325.   | 1.2 | 80        |
| 66 | Probing the active site in single-atom oxygen reduction catalysts via operando X-ray and electrochemical spectroscopy. Nature Communications, 2020, 11, 4233.                      | 5.8 | 80        |
| 67 | Si-containing crystalline carbon nitride derived from microwave plasma-enhanced chemical vapor deposition. Thin Solid Films, 1997, 303, 66-75.                                     | 0.8 | 76        |
| 68 | Fast growth of large-grain and continuous MoS <sub>2</sub> films through a self-capping vapor-liquid-solid method. Nature Communications, 2020, 11, 3682.                          | 5.8 | 76        |
| 69 | Nanotips: Growth, Model, and Applications. Critical Reviews in Solid State and Materials Sciences, 2006, 31, 15-53.  | 6.8 | 75        |
| 70 | Mechanism of luminescence in InGaN/GaN multiple quantum wells. Applied Physics Letters, 2000, 76, 3712-3714.   | 1.5 | 73        |
| 71 | Fluorescent Organic Nanoparticles of Benzofuran-Naphthyridine Linked Molecules: Formation and Fluorescence Enhancement in Aqueous Media. Organic Letters, 2006, 8, 3713-3716.      | 2.4 | 73        |
| 72 | Controlled platinum nanoparticles uniformly dispersed on nitrogen-doped carbon nanotubes for methanol oxidation. Diamond and Related Materials, 2008, 17, 535-541.                 | 1.8 | 73        |

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|----|--|------|-----------|
| 73 | Room-temperature negative photoconductivity in degenerate InN thin films with a supergap excitation. Physical Review B, 2010, 81, .  | 1.1  | 72        |
| 74 | Bifacial sodium-incorporated treatments: Tailoring deep traps and enhancing carrier transport properties in Cu <sub>2</sub> ZnSnS <sub>4</sub> solar cells. Nano Energy, 2015, 16, 438-445.                | 8.2  | 70        |
| 75 | Micro-Raman for diamond film stress analysis. Diamond and Related Materials, 1995, 4, 460-463.   | 1.8  | 69        |
| 76 | Nanohomojunction (GaN) and Nanoheterojunction (InN) Nanorods on One-Dimensional GaN Nanowire Substrates. Advanced Functional Materials, 2004, 14, 233-237.   | 7.8  | 68        |
| 77 | Controlling Steps During Early Stages of the Aligned Growth of Carbon Nanotubes Using Microwave Plasma Enhanced Chemical Vapor Deposition. Advanced Functional Materials, 2002, 12, 687-692.               | 7.8  | 67        |
| 78 | Direct-growth of polyaniline nanowires for enzyme-immobilization and glucose detection. Electrochemistry Communications, 2009, 11, 850-853.  | 2.3  | 67        |
| 79 | Eco-Friendly Plasmonic Sensors: Using the Photothermal Effect to Prepare Metal Nanoparticle-Containing Test Papers for Highly Sensitive Colorimetric Detection. Analytical Chemistry, 2012, 84, 5140-5145. | 3.2  | 67        |
| 80 | Stand-up structure of graphene-like carbon nanowalls on CNT directly grown on polyacrylonitrile-based carbon fiber paper as supercapacitor. Diamond and Related Materials, 2012, 25, 176-179.              | 1.8  | 67        |
| 81 | Vertically aligned epitaxial graphene nanowalls with dominated nitrogen doping for superior supercapacitors. Carbon, 2015, 82, 124-134.  | 5.4  | 67        |
| 82 | On-Chip Fabrication of Well-Aligned and Contact-Barrier-Free GaN Nanobridge Devices with Ultrahigh Photocurrent Responsivity. Small, 2008, 4, 925-929.   | 5.2  | 65        |
| 83 | Growth and Optical Properties of Self-Organized Au <sub>2</sub> Si Nanospheres Pea-Podded in a Silicon Oxide Nanowire. Advanced Materials, 2002, 14, 1847-1850.  | 11.1 | 63        |
| 84 | Enhanced dynamic annealing in Ga <sup>+</sup> ion-implanted GaN nanowires. Applied Physics Letters, 2003, 82, 451-453.   | 1.5  | 63        |
| 85 | Nanostructured Zinc Oxide Nanorods with Copper Nanoparticles as a Microreformation Catalyst. Angewandte Chemie - International Edition, 2009, 48, 7586-7590.   | 7.2  | 63        |
| 86 | Transport properties of InN nanowires. Applied Physics Letters, 2005, 87, 093112.  | 1.5  | 62        |
| 87 | Transparent, Broadband, Flexible, and Bifacial-Operable Photodetectors Containing a Large-Area Graphene-Gold Oxide Heterojunction. ACS Nano, 2015, 9, 5093-5103.   | 7.3  | 62        |
| 88 | Wide band gap silicon carbon nitride films deposited by electron cyclotron resonance plasma chemical vapor deposition. Thin Solid Films, 1999, 355-356, 205-209.   | 0.8  | 61        |
| 89 | Field emission from quasi-aligned aluminum nitride nanotips. Applied Physics Letters, 2005, 87, 073109.  | 1.5  | 61        |
| 90 | Electrical transport properties of single GaN and InN nanowires. Journal of Electronic Materials, 2006, 35, 738-743.   | 1.0  | 61        |

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|-----|--|-----|-----------|
| 91  | Sharp Infrared Emission from Single-Crystalline Indium Nitride Nanobelts Prepared Using Guided-Stream Thermal Chemical Vapor Deposition. <i>Advanced Functional Materials</i> , 2006, 16, 537-541.                       | 7.8 | 61        |
| 92  | Prestrained effect on the emission properties of InGaN/GaN quantum-well structures. <i>Applied Physics Letters</i> , 2006, 89, 051913.   | 1.5 | 60        |
| 93  | Direct-growth of poly(3,4-ethylenedioxythiophene) nanowires/carbon cloth as hierarchical supercapacitor electrode in neutral aqueous solution. <i>Journal of Power Sources</i> , 2013, 242, 718-724.                     | 4.0 | 60        |
| 94  | Nanostructures and carrier localization behaviors of green-luminescence InGaN/GaN quantum-well structures of various silicon-doping conditions. <i>Applied Physics Letters</i> , 2004, 84, 2506-2508.                    | 1.5 | 59        |
| 95  | One-Dimensional Group III-Nitrides: Growth, Properties, and Applications in Nanosensing and Nano-Optoelectronics. <i>Critical Reviews in Solid State and Materials Sciences</i> , 2009, 34, 224-279.                     | 6.8 | 59        |
| 96  | Integrated nano-architected photocatalysts for photochemical CO <sub>2</sub> reduction. <i>Nanoscale</i> , 2020, 12, 23301-23332.  | 2.8 | 59        |
| 97  | Effects of cathode buffer layers on the efficiency of bulk-heterojunction solar cells. <i>Applied Physics Letters</i> , 2010, 96, .  | 1.5 | 58        |
| 98  | Optical properties and photoconductivity of amorphous silicon carbon nitride thin film and its application for UV detection. <i>Diamond and Related Materials</i> , 2005, 14, 1010-1013.                                 | 1.8 | 57        |
| 99  | High methanol oxidation activity of electrocatalysts supported by directly grown nitrogen-containing carbon nanotubes on carbon cloth. <i>Electrochimica Acta</i> , 2006, 52, 1612-1617.                                 | 2.6 | 57        |
| 100 | Direct voltammetric sensing of L-Cysteine at pristine GaN nanowires electrode. <i>Biosensors and Bioelectronics</i> , 2010, 26, 1688-1691.   | 5.3 | 57        |
| 101 | Enhanced thermoelectric performance of GeTe through <i>in situ</i> microdomain and Ge-vacancy control. <i>Journal of Materials Chemistry A</i> , 2019, 7, 15181-15189.   | 5.2 | 56        |
| 102 | A mechanistic study of molecular CO <sub>2</sub> interaction and adsorption on carbon implanted SnS <sub>2</sub> thin film for photocatalytic CO <sub>2</sub> reduction activity. <i>Nano Energy</i> , 2020, 72, 104717. | 8.2 | 55        |
| 103 | Structure and elastic properties of amorphous silicon carbon nitride films. <i>Physical Review B</i> , 2001, 64, .   | 1.1 | 54        |
| 104 | Electronic structure of the carbon nanotube tips studied by x-ray-absorption spectroscopy and scanning photoelectron microscopy. <i>Applied Physics Letters</i> , 2002, 81, 4189-4191.                                   | 1.5 | 54        |
| 105 | Substitutional nitrogen incorporation through rf glow discharge treatment and subsequent oxygen uptake on vertically aligned carbon nanotubes. <i>Physical Review B</i> , 2007, 75, .                                    | 1.1 | 54        |
| 106 | KSCN-induced Interfacial Dipole in Black TiO <sub>2</sub> for Enhanced Photocatalytic CO <sub>2</sub> Reduction. <i>ACS Applied Materials &amp; Interfaces</i> , 2019, 11, 25186-25194.                                  | 4.0 | 54        |
| 107 | High-gain photoconductivity in semiconducting InN nanowires. <i>Applied Physics Letters</i> , 2009, 95, .  | 1.5 | 52        |
| 108 | Coalescence overgrowth of GaN nanocolumns on sapphire with patterned metal organic vapor phase epitaxy. <i>Journal of Applied Physics</i> , 2009, 105, 023501.   | 1.1 | 52        |

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|-----|---|-----|-----------|
| 109 | Photoconductivity in single AlN nanowires by subband gap excitation. Applied Physics Letters, 2010, 96, .   | 1.5 | 52        |
| 110 | A nontoxic solvent based sol-gel Cu <sub>2</sub> ZnSnS <sub>4</sub> thin film for high efficiency and scalable low-cost photovoltaic cells. Journal of Materials Chemistry A, 2015, 3, 15324-15330. | 5.2 | 52        |
| 111 | Directly-Grown Hierarchical Carbon Nanotube@Polypyrrole Core-Shell Hybrid for High-Performance Flexible Supercapacitors. ChemSusChem, 2016, 9, 370-378.   | 3.6 | 52        |
| 112 | Nitrogen-Functionalized Graphene Nanoflakes (GNFs:N): Tunable Photoluminescence and Electronic Structures. Journal of Physical Chemistry C, 2012, 116, 16251-16258.                                 | 1.5 | 51        |
| 113 | Thickness-Dependent Binding Energy Shift in Few-Layer MoS <sub>2</sub> Grown by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2016, 8, 22637-22646.                                | 4.0 | 51        |
| 114 | Strong luminescence from strain relaxed InGaN/GaN nanotips for highly efficient light emitters. Optics Express, 2007, 15, 9357.   | 1.7 | 50        |
| 115 | Size-dependent persistent photocurrent and surface band bending in axial GaN nanowires. Physical Review B, 2011, 84, .  | 1.1 | 50        |
| 116 | A stable silicon/graphene composite using solvent exchange method as anode material for lithium ion batteries. Carbon, 2013, 63, 397-403.   | 5.4 | 50        |
| 117 | Multiphonon Raman scattering in GaN nanowires. Applied Physics Letters, 2007, 90, 213104.   | 1.5 | 49        |
| 118 | Functionalized GaN nanowire-based electrode for direct label-free voltammetric detection of DNA hybridization. Journal of Materials Chemistry, 2009, 19, 928.                                       | 6.7 | 48        |
| 119 | Imaging layer number and stacking order through formulating Raman fingerprints obtained from hexagonal single crystals of few layer graphene. Nanotechnology, 2013, 24, 015702.                     | 1.3 | 48        |
| 120 | Flexible sensor for dopamine detection fabricated by the direct growth of Fe <sub>3</sub> O <sub>4</sub> nanoparticles on carbon cloth. Applied Surface Science, 2018, 427, 387-395.                | 3.1 | 47        |
| 121 | Infrared lasing in InN nanobelts. Applied Physics Letters, 2007, 90, 123109.  | 1.5 | 46        |
| 122 | Microwave-activated CuO nanotip/ZnO nanorod nanoarchitectures for efficient hydrogen production. Journal of Materials Chemistry, 2011, 21, 324-326.   | 6.7 | 46        |
| 123 | Ultrasensitive Gas Sensors Based on Vertical Graphene Nanowalls/SiC/Si Heterostructure. ACS Sensors, 2019, 4, 406-412.  | 4.0 | 46        |
| 124 | Controlled growth of silicon carbide nanorods by rapid thermal process and their field emission properties. Chemical Physics Letters, 2003, 379, 155-161.   | 1.2 | 45        |
| 125 | Luminescence properties of wurtzite AlN nanotips. Applied Physics Letters, 2006, 89, 163127.  | 1.5 | 45        |
| 126 | Molecule-modulated photoconductivity and gain-amplified selective gas sensing in polar GaN nanowires. Applied Physics Letters, 2009, 95, 233119.  | 1.5 | 45        |



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|-----|---|-----|-----------|
| 127 | Deposition of silicon carbon nitride films by ion beam sputtering. Thin Solid Films, 1999, 355-356, 417-422.  | 0.8 | 44        |
| 128 | Structural evolution of AlN nano-structures: Nanotips and nanorods. Chemical Physics Letters, 2006, 418, 152-157.   | 1.2 | 44        |
| 129 | Metal-free four-in-one modification of g-C <sub>3</sub> N <sub>4</sub> for superior photocatalytic CO <sub>2</sub> reduction and H <sub>2</sub> evolution. Chemical Engineering Journal, 2022, 430, 132853.   | 6.6 | 44        |
| 130 | Growth of highly transparent nanocrystalline diamond films and a spectroscopic study of the growth. Journal of Applied Physics, 2001, 89, 753-759.  | 1.1 | 43        |
| 131 | Laser irradiation of carbon nanotubes. Materials Chemistry and Physics, 2001, 72, 218-222.  | 2.0 | 42        |
| 132 | Spectroscopic studies of nitrogenated amorphous carbon films prepared by ion beam sputtering. Journal of Applied Physics, 2002, 91, 4944-4955.  | 1.1 | 42        |
| 133 | Mechanism of enhanced luminescence in In <sub>x</sub> Al <sub>y</sub> Ga <sub>1-x-y</sub> N quaternary epilayers. Applied Physics Letters, 2004, 84, 1480-1482.   | 1.5 | 42        |
| 134 | Effects of nitrogen-doping on the microstructure, bonding and electrochemical activity of carbon nanotubes. Diamond and Related Materials, 2009, 18, 433-437.   | 1.8 | 42        |
| 135 | Synergistic optimization of thermoelectric performance of Sb doped GeTe with a strained domain and domain boundaries. Journal of Materials Chemistry A, 2020, 8, 5332-5341.   | 5.2 | 42        |
| 136 | Co <sub>3</sub> V <sub>2</sub> O <sub>8</sub> hollow spheres with mesoporous walls as high-capacitance electrode for hybrid supercapacitor device. Chemical Engineering Journal, 2022, 436, 135225.   | 6.6 | 42        |
| 137 | High current density field emission from arrays of carbon nanotubes and diamond-clad Si tips. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2000, 18, 1207. | 1.6 | 41        |
| 138 | A first principles study of the optical properties of B <sub>x</sub> C <sub>y</sub> single wall nanotubes. Carbon, 2007, 45, 1482-1491.   | 5.4 | 41        |
| 139 | Surface optical Raman modes in InN nanostructures. Applied Physics Letters, 2008, 93, .   | 1.5 | 41        |
| 140 | First principles calculations of the optical properties of C <sub>x</sub> N <sub>y</sub> single walled nanotubes. Nanotechnology, 2009, 20, 175701.   | 1.3 | 41        |
| 141 | Highly efficient nitrogen and carbon coordinated Ni-Co electrocatalysts on reduced graphene oxide derived from vitamin-B12 for the hydrogen evolution reaction. Journal of Materials Chemistry A, 2019, 7, 7179-7185.                                 | 5.2 | 41        |
| 142 | Band-gap dependence of field emission from one-dimensional nanostructures grown on n-type and p-type silicon substrates. Physical Review B, 2003, 68, .   | 1.1 | 40        |
| 143 | Edge promoted ultrasensitive electrochemical detection of organic bio-molecules on epitaxial graphene nanowalls. Biosensors and Bioelectronics, 2015, 70, 137-144.  | 5.3 | 40        |
| 144 | Electronic structure of GaN nanowire studied by x-ray-absorption spectroscopy and scanning photoelectron microscopy. Applied Physics Letters, 2003, 82, 3949-3951.  | 1.5 | 39        |

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