Ning Wang

List of Publications by Year in descending order

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| # | Article | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Formation of ZnO nanostructures by a simple way of thermal evaporation. Applied Physics Letters, 2002, 81, 757-759. | 1.5 | 925 |
| 2 | Superconductivity in 4 Angstrom Single-Walled Carbon Nanotubes. Science, 2001, 292, 2462-2465. | 6.0 | 778 |
| 3 | Thermochromic VO2 for Energy-Efficient Smart Windows. Joule, 2018, 2, 1707-1746. | 11.7 | 536 |
| 4 | Oriented Silicon Carbide Nanowires: Synthesis and Field Emission Properties. Advanced Materials, 2000, 12, 1186-1190. | 11.1 | 523 |
| 5 | Silicon nanowires prepared by laser ablation at high temperature. Applied Physics Letters, 1998, 72, 1835-1837. | 1.5 | 519 |
| 6 | Formation mechanism of TiO2 nanotubes. Applied Physics Letters, 2003, 82, 281-283. | 1.5 | 505 |
| 7 | Growth of nanowires. Materials Science and Engineering Reports, 2008, 60, 1-51. | 14.8 | 489 |
| 8 | High-quality sandwiched black phosphorus heterostructure and its quantum oscillations. Nature Communications, 2015, 6, 7315. | 5.8 | 423 |
| 9 | Single-walled 4 Ã carbon nanotube arrays. Nature, 2000, 408, 50-51. | 13.7 | 383 |
| 10 | Atomically Dispersed Pd on Nanodiamond/Graphene Hybrid for Selective Hydrogenation of Acetylene. Journal of the American Chemical Society, 2018, 140, 13142-13146. | 6.6 | 342 |
| 11 | Two-dimensional quasicrystal with eightfold rotational symmetry. Physical Review Letters, 1987, 59, 1010-1013. | 2.9 | 309 |
| 12 | Nucleation and growth of Si nanowires from silicon oxide. Physical Review B, 1998, 58, R16024-R16026. | 1.1 | 309 |
| 13 | Polarized Absorption Spectra of Single-Walled 4 Ã Carbon Nanotubes Aligned in Channels of anAlPO4â^'5Single Crystal. Physical Review Letters, 2001, 87, 127401. | 2.9 | 285 |
| 14 | Si nanowires grown from silicon oxide. Chemical Physics Letters, 1999, 299, 237-242. | 1.2 | 273 |
| 15 | Enhanced photocatalytic performance of TiO2-ZnO hybrid nanostructures. Scientific Reports, 2014, 4, 4181. | 1.6 | 248 |
| 16 | Achieving Ultrahigh Carrier Mobility in Two-Dimensional Hole Gas of Black Phosphorus. Nano Letters, 2016, 16, 7768-7773. | 4.5 | 242 |
| 17 | Anchoring Cu1 species over nanodiamond-graphene for semi-hydrogenation of acetylene. Nature Communications, 2019, 10, 4431. | 5.8 | 224 |
| 18 | Subnanometer Bimetallic Platinum–Zinc Clusters in Zeolites for Propane Dehydrogenation. Angewandte Chemie - International Edition, 2020, 59, 19450-19459. | 7.2 | 221 |

| # | Article | IF | CITATIONS |
|----|--|-------------------|-----------------|
| 19 | Growth and Photocatalytic Activity of Dendrite-like ZnO@Ag Heterostructure Nanocrystals. Crystal Growth and Design, 2009, 9, 3278-3285. | 1.4 | 206 |
| 20 | Laser Ablation Synthesis and Optical Characterization of Silicon Carbide Nanowires. Journal of the American Ceramic Society, 2000, 83, 3228-3230. | 1.9 | 203 |
| 21 | Oxide-Assisted Semiconductor Nanowire Growth. MRS Bulletin, 1999, 24, 36-42. | 1.7 | 198 |
| 22 | SiO2-enhanced synthesis of Si nanowires by laser ablation. Applied Physics Letters, 1998, 73, 3902-3904. | 1.5 | 196 |
| 23 | Synthesis of Large Areas of Highly Oriented, Very Long Silicon Nanowires. Advanced Materials, 2000, 12, 1343-1345. | 11.1 | 194 |
| 24 | Probing the electron states and metal-insulator transition mechanisms in molybdenum disulphide vertical heterostructures. Nature Communications, 2015, 6, 6088. | 5.8 | 181 |
| 25 | The van der Waals epitaxy of Bi ₂ Se ₃ on the vicinal Si(111) surface: an approach for preparing high-quality thin films of a topological insulator. New Journal of Physics, 2010, 12, 103038. | 1.2 | 180 |
| 26 | Oxygenâ€Assisted Charge Transfer Between ZnO Quantum Dots and Graphene. Small, 2013, 9, 3031-3036. | 5.2 | 174 |
| 27 | Dense Network of One-Dimensional Midgap Metallic Modes in Monolayer <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MoSe</mml:mi></mml:mrow><mml:mrow> Their Spatial Undulations. Physical Review Letters. 2014. 113. 066105.</mml:mrow></mml:msub></mml:mrow></mml:math | <m#t:mn></m#t:mn> | 2 <del 172 2 |
| 28 | Germanium nanowires sheathed with an oxide layer. Physical Review B, 2000, 61, 4518-4521. | 1.1 | 171 |
| 29 | β-SiC nanorods synthesized by hot filament chemical vapor deposition. Applied Physics Letters, 1999, 74, 3942-3944. | 1.5 | 169 |
| 30 | A General Synthetic Route to III-V Compound Semiconductor Nanowires. Advanced Materials, 2001, 13, 591-594. | 11.1 | 158 |
| 31 | Tin-Assisted Fully Exposed Platinum Clusters Stabilized on Defect-Rich Graphene for Dehydrogenation Reaction. ACS Catalysis, 2019, 9, 5998-6005. | 5.5 | 150 |
| 32 | Free-standing Single Crystal Silicon Nanoribbons. Journal of the American Chemical Society, 2001, 123, 11095-11096. | 6.6 | 148 |
| 33 | Semiconductor nanowires from oxides. Journal of Materials Research, 1999, 14, 4503-4507. | 1.2 | 145 |
| 34 | Electronic and Mechanical Coupling in Bent ZnO Nanowires. Advanced Materials, 2009, 21, 4937-4941. | 11.1 | 137 |
| 35 | Bulk-quantity GaN nanowires synthesized from hot filament chemical vapor deposition. Chemical Physics Letters, 2000, 327, 263-270. | 1.2 | 133 |
| 36 | 3D heterostructured pure and N-Doped Ni3S2/VS2 nanosheets for high efficient overall water splitting. Electrochimica Acta, 2018, 269, 55-61. | 2.6 | 132 |

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|----|---|------|-----------|
| 37 | Semiconductor nanowires: synthesis, structure and properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 286, 16-23. | 2.6 | 128 |
| 38 | A Nucleation Site and Mechanism Leading to Epitaxial Growth of Diamond Films. Science, 2000, 287, 104-106. | 6.0 | 125 |
| 39 | Ultrarapid Sonochemical Synthesis of ZnO Hierarchical Structures: From Fundamental Research to High Efficiencies up to 6.42% for Quasi-Solid Dye-Sensitized Solar Cells. Chemistry of Materials, 2013, 25, 1000-1012. | 3.2 | 124 |
| 40 | Fabrication and magnetic properties of ultrathin Fe nanowire arrays. Applied Physics Letters, 2003, 83, 3341-3343. | 1.5 | 122 |
| 41 | The Size-Dependent Growth Direction of ZnSe Nanowires. Advanced Materials, 2006, 18, 109-114. | 11.1 | 116 |
| 42 | Thin Î ² -SiC nanorods and their field emission properties. Chemical Physics Letters, 2000, 318, 58-62. | 1.2 | 114 |
| 43 | CdSe Nano-tetrapods:  Controllable Synthesis, Structure Analysis, and Electronic and Optical Properties. Chemistry of Materials, 2005, 17, 5263-5267. | 3.2 | 114 |
| 44 | Temperature Dependence of Si Nanowire Morphology. Advanced Materials, 2001, 13, 317-320. | 11.1 | 113 |
| 45 | Regulating coordination number in atomically dispersed Pt species on defect-rich graphene for n-butane dehydrogenation reaction. Nature Communications, 2021, 12, 2664. | 5.8 | 111 |
| 46 | Transmission electron microscopy evidence of the defect structure in Si nanowires synthesized by laser ablation. Chemical Physics Letters, 1998, 283, 368-372. | 1.2 | 110 |
| 47 | One-dimensional growth mechanism of crystalline silicon nanowires. Journal of Crystal Growth, 1999, 197, 136-140. | 0.7 | 104 |
| 48 | ZnSe nanowires epitaxially grown on GaP(111) substrates by molecular-beam epitaxy. Applied Physics Letters, 2003, 83, 2665-2667. | 1.5 | 104 |
| 49 | Universal low-temperature Ohmic contacts for quantum transport in transition metal dichalcogenides. 2D Materials, 2016, 3, 021007. | 2.0 | 102 |
| 50 | Growth Direction and Cross-Sectional Study of Silicon Nanowires. Advanced Materials, 2003, 15, 607-609. | 11.1 | 99 |
| 51 | Isolation and Characterization of Few-Layer Manganese Thiophosphite. ACS Nano, 2017, 11, 11330-11336. | 7.3 | 98 |
| 52 | Morphology of Si nanowires synthesized by high-temperature laser ablation. Journal of Applied Physics, 1999, 85, 7981-7983. | 1.1 | 97 |
| 53 | Diameter modification of silicon nanowires by ambient gas. Applied Physics Letters, 1999, 75, 1842-1844. | 1.5 | 93 |
| 54 | Recent advances in fabrication strategies, phase transition modulation, and advanced applications of vanadium dioxide. Applied Physics Reviews, 2019, 6, . | 5.5 | 93 |

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|----|--|------|-----------|
| 55 | Direct electrochemistry and electrocatalysis of hemoglobin immobilized in TiO2 nanotube films. Talanta, 2008, 74, 1414-1419. | 2.9 | 92 |
| 56 | Twin Defect Derived Growth of Atomically Thin MoS ₂ Dendrites. ACS Nano, 2018, 12, 635-643. | 7.3 | 92 |
| 57 | Electrical and Photoresponse Properties of an Intramolecular p-n Homojunction in Single Phosphorus-Doped ZnO Nanowires. Nano Letters, 2009, 9, 2513-2518. | 4.5 | 91 |
| 58 | Deep Eutectic Solvent-Assisted Preparation of Nitrogen/Chloride-Doped Carbon Dots for Intracellular Biological Sensing and Live Cell Imaging. ACS Applied Materials & Interfaces, 2018, 10, 7901-7909. | 4.0 | 91 |
| 59 | Vanadium disulfide decorated graphitic carbon nitride for super-efficient solar-driven hydrogen evolution. Applied Catalysis B: Environmental, 2018, 237, 295-301. | 10.8 | 89 |
| 60 | Coaxial Three-Layer Nanocables Synthesized by Combining Laser Ablation and Thermal Evaporation. Advanced Materials, 2000, 12, 1927-1930. | 11.1 | 86 |
| 61 | Bulk-quantity Si nanowires synthesized by SiO sublimation. Journal of Crystal Growth, 2000, 212, 115-118. | 0.7 | 86 |
| 62 | Oxide-assisted growth and optical characterization of gallium-arsenide nanowires. Applied Physics Letters, 2001, 78, 3304-3306. | 1.5 | 84 |
| 63 | Even–odd layer-dependent magnetotransport of high-mobility Q-valley electrons in transition metal disulfides. Nature Communications, 2016, 7, 12955. | 5.8 | 82 |
| 64 | In situ TEM examinations of octacalcium phosphate to hydroxyapatite transformation. Journal of Crystal Growth, 2006, 289, 339-344. | 0.7 | 81 |
| 65 | Molecular-beam epitaxy of monolayer MoSe ₂ : growth characteristics and domain boundary formation. New Journal of Physics, 2015, 17, 053023. | 1.2 | 80 |
| 66 | Synthesis and microstructure of gallium phosphide nanowires. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2001, 19, 1115. | 1.6 | 79 |
| 67 | Hydrothermal synthesis of oriented ZnO nanobelts and their temperature dependent photoluminescence. Chemical Physics Letters, 2004, 393, 17-21. | 1.2 | 79 |
| 68 | Field Induced Structural Transition in Mesocrystallites. Physical Review Letters, 1999, 82, 4248-4251. | 2.9 | 77 |
| 69 | Intrinsic valley Hall transport in atomically thin MoS2. Nature Communications, 2019, 10, 611. | 5.8 | 77 |
| 70 | Palladium Nanoparticles Embedded in the Inner Surfaces of Carbon Nanotubes: Synthesis, Catalytic Activity, and Sinter Resistance. Angewandte Chemie - International Edition, 2014, 53, 12634-12638. | 7.2 | 76 |
| 71 | High-Quality ZnO Nanowire Arrays Directly Fabricated from Photoresists. ACS Nano, 2009, 3, 53-58. | 7.3 | 74 |
| 72 | Piezotronic Effects on the Optical Properties of ZnO Nanowires. Nano Letters, 2012, 12, 5802-5807. | 4.5 | 73 |

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| 73 | Control of growth orientation of GaN nanowires. Chemical Physics Letters, 2002, 359, 241-245. | 1.2 | 72 |
| 74 | Solidâ€State Synthesis of ZnO Nanostructures for Quasiâ€Solid Dyeâ€Sensitized Solar Cells with High Efficiencies up to 6.46%. Advanced Materials, 2013, 25, 4413-4419. | 11.1 | 72 |
| 75 | Few-Atom Pt Ensembles Enable Efficient Catalytic Cyclohexane Dehydrogenation for Hydrogen Production. Journal of the American Chemical Society, 2022, 144, 3535-3542. | 6.6 | 72 |
| 76 | Ti1–graphene single-atom material for improved energy level alignment in perovskite solar cells. Nature Energy, 2021, 6, 1154-1163. | 19.8 | 72 |
| 77 | Germanium dioxide whiskers synthesized by laser ablation. Applied Physics Letters, 1999, 74, 3824-3826. | 1.5 | 70 |
| 78 | Smallest diameter carbon nanotubes. Applied Physics Letters, 2000, 77, 2831-2833. | 1.5 | 68 |
| 79 | Interaction effects and superconductivity signatures in twisted double-bilayer WSe ₂ . Nanoscale Horizons, 2020, 5, 1309-1316. | 4.1 | 68 |
| 80 | Normally-Off LPCVD-SiN <italic> _x </italic> /GaN MIS-FET With Crystalline Oxidation Interlayer. IEEE Electron Device Letters, 2017, 38, 929-932. | 2.2 | 67 |
| 81 | Synthesis and characterization of amorphous carbon nanowires. Applied Physics Letters, 1999, 75, 2921-2923. | 1.5 | 66 |
| 82 | Template-Free Electrochemical Synthesis of Single-Crystal CuTe Nanoribbons. Crystal Growth and Design, 2008, 8, 1789-1791. | 1.4 | 65 |
| 83 | Straight β-SiC nanorods synthesized by using C–Si–SiO2. Applied Physics Letters, 2000, 76, 294-296. | 1.5 | 63 |
| 84 | Electron-Beam-Induced Elastic–Plastic Transition in Si Nanowires. Nano Letters, 2012, 12, 2379-2385. | 4.5 | 63 |
| 85 | Enhanced Photothermal Effect in Si Nanowires. Nano Letters, 2003, 3, 475-477. | 4.5 | 61 |
| 86 | An Ultralight Graphene Honeycomb Sandwich for Stretchable Lightâ€Emitting Displays. Advanced Functional Materials, 2018, 28, 1707043. | 7.8 | 61 |
| 87 | Highly efficient and stable photoluminescence from silicon nanowires coated with SiC. Chemical Physics Letters, 2000, 332, 215-218. | 1.2 | 59 |
| 88 | Superconducting characteristics of 4-â,,« carbon nanotube–zeolite composite. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 7299-7303. | 3.3 | 58 |
| 89 | Interlaced W ₁₈ O ₄₉ nanofibers as a superior catalyst for the counter electrode of highly efficient dye-sensitized solar cells. Journal of Materials Chemistry A, 2014, 2, 4347-4354. | 5.2 | 58 |
| 90 | Structure and migration of (112) step on (111) twin boundaries in nanocrystalline copper. Journal of Applied Physics, 2008, 104, . | 1.1 | 57 |

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|-----|---|------|-----------|
| 91 | Effect of annealing on the giant Hall effect. Physical Review B, 1996, 53, 14032-14035. | 1.1 | 56 |
| 92 | Nucleation and growth of well-aligned, uniform-sized carbon nanotubes by microwave plasma chemical vapor depositon. Applied Physics Letters, 2001, 78, 4028-4030. | 1.5 | 54 |
| 93 | High reactivity of silicon suboxide clusters. Physical Review B, 2001, 64, . | 1.1 | 54 |
| 94 | van der Waals Epitaxial Growth of Atomically Thin Bi ₂ Se ₃ and Thickness-Dependent Topological Phase Transition. Nano Letters, 2015, 15, 2645-2651. | 4.5 | 54 |
| 95 | Growth and emission properties of β-SiC nanorods. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2000, 286, 119-124. | 2.6 | 52 |
| 96 | Controllable Fabrication of Three-Dimensional Radial ZnO Nanowire/Silicon Microrod Hybrid Architectures. Crystal Growth and Design, 2011, 11, 147-153. | 1.4 | 52 |
| 97 | Cost-effective and morphology-controllable niobium diselenides for highly efficient counter electrodes of dye-sensitized solar cells. Journal of Materials Chemistry A, 2013, 1, 11874. | 5.2 | 52 |
| 98 | Mechanism of oxide-assisted nucleation and growth of silicon nanostructures. Materials Science and Engineering C, 2001, 16, 31-35. | 3.8 | 51 |
| 99 | Cooperative Sites in Fully Exposed Pd Clusters for Low-Temperature Direct Dehydrogenation Reaction. ACS Catalysis, 2021, 11, 11469-11477. | 5.5 | 51 |
| 100 | Tuning the selectivity of catalytic nitriles hydrogenation by structure regulation in atomically dispersed Pd catalysts. Nature Communications, 2021, 12, 6194. | 5.8 | 51 |
| 101 | Defect-rich graphene stabilized atomically dispersed Cu3 clusters with enhanced oxidase-like activity for antibacterial applications. Applied Catalysis B: Environmental, 2022, 301, 120826. | 10.8 | 51 |
| 102 | Bulk-quantity Si nanosphere chains prepared from semi-infinite length Si nanowires. Journal of Applied Physics, 2001, 89, 727-731. | 1.1 | 49 |
| 103 | Optimizing nanosheet-based ZnO hierarchical structure through ultrasonic-assisted precipitation for remarkable photovoltaic enhancement in quasi-solid dye-sensitized solar cells. Journal of Materials Chemistry, 2012, 22, 13097. | 6.7 | 48 |
| 104 | Reduction of nitrobenzene catalyzed by carbon materials. Chinese Journal of Catalysis, 2014, 35, 914-921. | 6.9 | 48 |
| 105 | Lattice reconstruction induced multiple ultra-flat bands in twisted bilayer WSe2. Nature Communications, 2021, 12, 5601. | 5.8 | 48 |
| 106 | Transition between wurtzite and zinc-blende GaN: An effect of deposition condition of molecular-beam epitaxy. Applied Physics Letters, 2006, 89, 151921. | 1.5 | 47 |
| 107 | Micropumps Based on the Enhanced Electroosmotic Effect of Aluminum Oxide Membranes. Advanced Materials, 2007, 19, 4234-4237. | 11.1 | 47 |
| 108 | Template-Free Electrodeposition of One-Dimensional Nanostructures of Tellurium. Crystal Growth and Design, 2009, 9, 663-666. | 1.4 | 47 |

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| 109 | Graphene Magnetoresistance Device in van der Pauw Geometry. Nano Letters, 2011, 11, 2973-2977. | 4.5 | 45 |
| 110 | Shape-Dependent Defect Structures of Monolayer MoS ₂ Crystals Grown by Chemical Vapor Deposition. ACS Applied Materials & amp; Interfaces, 2017, 9, 763-770. | 4.0 | 45 |
| 111 | Metal Silicide/Silicon Nanowires from Metal Vapor Vacuum Arc Implantation. Advanced Materials, 2002, 14, 218-221. | 11.1 | 44 |
| 112 | A Magnetically Separable Pd Singleâ€Atom Catalyst for Efficient Selective Hydrogenation of Phenylacetylene. Advanced Materials, 2022, 34, e2110455. | 11.1 | 44 |
| 113 | Mono-sized and single-walled 4 Ã carbon nanotubes. Chemical Physics Letters, 2001, 339, 47-52. | 1.2 | 43 |
| 114 | Superconductivity in Bundles of Double-Wall Carbon Nanotubes. Scientific Reports, 2012, 2, 625. | 1.6 | 43 |
| 115 | Si nanowires synthesized by laser ablation of mixed SiC and SiO2 powders. Chemical Physics Letters, 1999, 314, 16-20. | 1.2 | 42 |
| 116 | Structural characterization of mesoporous silica nanowire arrays grown in porous alumina templates. Chemical Physics Letters, 2005, 409, 172-176. | 1.2 | 42 |
| 117 | Temperature-Dependent Growth Direction of Ultrathin ZnSe Nanowires. Small, 2007, 3, 111-115. | 5.2 | 42 |
| 118 | Superlattices of Bi2Se3/In2Se3: Growth characteristics and structural properties. Applied Physics Letters, 2011, 99, . | 1.5 | 42 |
| 119 | Effects of Hexagonal Boron Nitride Encapsulation on the Electronic Structure of Few-Layer MoS ₂ . Journal of Physical Chemistry C, 2019, 123, 14797-14802. | 1.5 | 42 |
| 120 | Heteroepitaxial nucleation of diamond on Si(100) via double bias-assisted hot filament chemical vapor deposition. Diamond and Related Materials, 2000, 9, 134-139. | 1.8 | 41 |
| 121 | Carbon Nanotube Arrays Prepared by MWCVD. Journal of Physical Chemistry B, 2001, 105, 11395-11398. | 1.2 | 40 |
| 122 | ZnO hierarchical structures for efficient quasi-solid dye-sensitized solar cells. Physical Chemistry Chemical Physics, 2011, 13, 10631. | 1.3 | 39 |
| 123 | A self-entanglement mechanism for continuous pulling of carbon nanotube yarns. Carbon, 2011, 49, 4996-5001. | 5.4 | 39 |
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