# Ali Javey

List of Publications by Year
in descending order

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|---|---|---|---|
| 353 papers | 57,268 citations | 906 116 h-index | 1072 233 g-index |
| 361 all docs | 361 docs citations | 361 times ranked | 45788 citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Fully integrated wearable sensor arrays for multiplexed in situ perspiration analysis. Nature, 2016, 529, 509-514. | 27.8 | 3,508 |
| 2 | Ballistic carbon nanotube field-effect transistors. Nature, 2003, 424, 654-657. | 27.8 | 2,883 |
| 3 | High-Performance Single Layered WSe<sub>2</sub> p-FETs with Chemically Doped Contacts. Nano Letters, 2012, 12, 3788-3792. | 9.1 | 1,547 |
| 4 | Nanowire active-matrix circuitry for low-voltage macroscale artificial skin. Nature Materials, 2010, 9, 821-826. | 27.5 | 1,162 |
| 5 | MoS <sub>2</sub> transistors with 1-nanometer gate lengths. Science, 2016, 354, 99-102. | 12.6 | 1,140 |
| 6 | User-interactive electronic skin for instantaneous pressure visualization. Nature Materials, 2013, 12, 899-904. | 27.5 | 1,044 |
| 7 | Three-dimensional nanopillar-array photovoltaics on low-cost and flexible substrates. Nature Materials, 2009, 8, 648-653. | 27.5 | 997 |
| 8 | Near-unity photoluminescence quantum yield in MoS <sub>2</sub>. Science, 2015, 350, 1065-1068. | 12.6 | 993 |
| 9 | Strong interlayer coupling in van der Waals heterostructures built from single-layer chalcogenides. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6198-6202. | 7.1 | 970 |
| 10 | Toward Large Arrays of Multiplex Functionalized Carbon Nanotube Sensors for Highly Sensitive and Selective Molecular Detection. Nano Letters, 2003, 3, 347-351. | 9.1 | 953 |
| 11 | Wearable sweat sensors. Nature Electronics, 2018, 1, 160-171. | 26.0 | 947 |
| 12 | High-Î¹ dielectrics for advanced carbon-nanotube transistors and logic gates. Nature Materials, 2002, 1, 241-246. | 27.5 | 928 |
| 13 | Hysteresis Caused by Water Molecules in Carbon Nanotube Field-Effect Transistors. Nano Letters, 2003, 3, 193-198. | 9.1 | 890 |
| 14 | Flexible Electronics toward Wearable Sensing. Accounts of Chemical Research, 2019, 52, 523-533. | 15.6 | 713 |
| 15 | Degenerate n-Doping of Few-Layer Transition Metal Dichalcogenides by Potassium. Nano Letters, 2013, 13, 1991-1995. | 9.1 | 651 |
| 16 | Air-Stable Surface Charge Transfer Doping of MoS<sub>2</sub> by Benzyl Viologen. Journal of the American Chemical Society, 2014, 136, 7853-7856. | 13.7 | 593 |
| 17 | Field-Effect Transistors Built from All Two-Dimensional Material Components. ACS Nano, 2014, 8, 6259-6264. | 14.6 | 582 |
| 18 | Layer-by-Layer Assembly of Nanowires for Three-Dimensional, Multifunctional Electronics. Nano Letters, 2007, 7, 773-777. | 9.1 | 573 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Autonomous sweat extraction and analysis applied to cystic fibrosis and glucose monitoring using a fully integrated wearable platform. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4625-4630. | 7.1 | 573 |
| 20 | Strain-Induced Indirect to Direct Bandgap Transition in Multilayer WSe<sub>2</sub>. Nano Letters, 2014, 14, 4592-4597. | 9.1 | 572 |
| 21 | Polymer Functionalization for Air-Stable n-Type Carbon Nanotube Field-Effect Transistors. Journal of the American Chemical Society, 2001, 123, 11512-11513. | 13.7 | 570 |
| 22 | Dual-Gated MoS<sub>2</sub>/WSe<sub>2</sub> van der Waals Tunnel Diodes and Transistors. ACS Nano, 2015, 9, 2071-2079. | 14.6 | 560 |
| 23 | High-Field Quasiballistic Transport in Short Carbon Nanotubes. Physical Review Letters, 2004, 92, 106804. | 7.8 | 543 |
| 24 | Wafer-Scale Assembly of Highly Ordered Semiconductor Nanowire Arrays by Contact Printing. Nano Letters, 2008, 8, 20-25. | 9.1 | 542 |
| 25 | Self-Aligned Ballistic Molecular Transistors and Electrically Parallel Nanotube Arrays. Nano Letters, 2004, 4, 1319-1322. | 9.1 | 505 |
| 26 | Carbon Nanotube Field-Effect Transistors with Integrated Ohmic Contacts and High-Î¹ Gate Dielectrics. Nano Letters, 2004, 4, 447-450. | 9.1 | 498 |
| 27 | MoS<sub>2</sub> P-type Transistors and Diodes Enabled by High Work Function MoO<sub>x</sub> Contacts. Nano Letters, 2014, 14, 1337-1342. | 9.1 | 487 |
| 28 | Preferential Growth of Semiconducting Single-Walled Carbon Nanotubes by a Plasma Enhanced CVD Method. Nano Letters, 2004, 4, 317-321. | 9.1 | 485 |
| 29 | A Wearable Electrochemical Platform for Noninvasive Simultaneous Monitoring of Ca<sup>2+</sup> and pH. ACS Nano, 2016, 10, 7216-7224. | 14.6 | 480 |
| 30 | Optically- and Thermally-Responsive Programmable Materials Based on Carbon Nanotube-Hydrogel Polymer Composites. Nano Letters, 2011, 11, 3239-3244. | 9.1 | 476 |
| 31 | Hole Selective MoO<sub>x</sub> Contact for Silicon Solar Cells. Nano Letters, 2014, 14, 967-971. | 9.1 | 476 |
| 32 | Efficient silicon solar cells with dopant-free asymmetric heterocontacts. Nature Energy, 2016, 1, . | 39.5 | 461 |
| 33 | High Performance n-Type Carbon Nanotube Field-Effect Transistors with Chemically Doped Contacts. Nano Letters, 2005, 5, 345-348. | 9.1 | 453 |
| 34 | Direct Chemical Vapor Deposition of Graphene on Dielectric Surfaces. Nano Letters, 2010, 10, 1542-1548. | 9.1 | 439 |
| 35 | Wearable Microfluidic Diaphragm Pressure Sensor for Health and Tactile Touch Monitoring. Advanced Materials, 2017, 29, 1701985. | 21.0 | 431 |
| 36 | Enabling unassisted solar water splitting by iron oxide and silicon. Nature Communications, 2015, 6, 7447. | 12.8 | 429 |

| # | Article | IF | Citations |
|---|---|---|---|
| 37 | Germanium nanowire field-effect transistors with SiO2 and high-Î¹ HfO2 gate dielectrics. Applied Physics Letters, 2003, 83, 2432-2434. | 3.3 | 424 |
| 38 | Ballistic Transport in Metallic Nanotubes with Reliable Pd Ohmic Contacts. Nano Letters, 2003, 3, 1541-1544. | 9.1 | 416 |
| 39 | 2D materials advances: from large scale synthesis and controlled heterostructures to improved characterization techniques, defects and applications. 2D Materials, 2016, 3, 042001. | 4.4 | 408 |
| 40 | Ultra-high-yield growth of vertical single-walled carbon nanotubes: Hidden roles of hydrogen and oxygen. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 16141-16145. | 7.1 | 403 |
| 41 | A biomimetic eye with a hemispherical perovskite nanowire array retina. Nature, 2020, 581, 278-282. | 27.8 | 392 |
| 42 | Passivating contacts for crystalline silicon solar cells. Nature Energy, 2019, 4, 914-928. | 39.5 | 374 |
| 43 | Ultrathin compound semiconductor on insulator layers for high-performance nanoscale transistors. Nature, 2010, 468, 286-289. | 27.8 | 373 |
| 44 | Fully Printed, High Performance Carbon Nanotube Thin-Film Transistors on Flexible Substrates. Nano Letters, 2013, 13, 3864-3869. | 9.1 | 372 |
| 45 | Printed Carbon Nanotube Electronics and Sensor Systems. Advanced Materials, 2016, 28, 4397-4414. | 21.0 | 369 |
| 46 | Polarization-resolved black phosphorus/molybdenum disulfide mid-wave infrared photodiodes with high detectivity at room temperature. Nature Photonics, 2018, 12, 601-607. | 31.4 | 366 |
| 47 | Toward the Development of Printable Nanowire Electronics and Sensors. Advanced Materials, 2009, 21, 3730-3743. | 21.0 | 363 |
| 48 | Silicon heterojunction solar cell with passivated hole selective MoOx contact. Applied Physics Letters, 2014, 104, . | 3.3 | 363 |
| 49 | Diameter-Dependent Electron Mobility of InAs Nanowires. Nano Letters, 2009, 9, 360-365. | 9.1 | 353 |
| 50 | Carbon Nanotube Transistor Arrays for Multistage Complementary Logic and Ring Oscillators. Nano Letters, 2002, 2, 929-932. | 9.1 | 325 |
| 51 | Controlled nanoscale doping of semiconductors via molecular monolayers. Nature Materials, 2008, 7, 62-67. | 27.5 | 311 |
| 52 | Goldâ€Mediated Exfoliation of Ultralarge Optoelectronicallyâ€Perfect Monolayers. Advanced Materials, 2016, 28, 4053-4058. | 21.0 | 307 |
| 53 | Solution-Synthesized High-Mobility Tellurium Nanoflakes for Short-Wave Infrared Photodetectors. ACS Nano, 2018, 12, 7253-7263. | 14.6 | 298 |
| 54 | Wearable Microsensor Array for Multiplexed Heavy Metal Monitoring of Body Fluids. ACS Sensors, 2016, 1, 866-874. | 7.8 | 297 |

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|---|---|---|---|
| 55 | Extremely Bendable, High-Performance Integrated Circuits Using Semiconducting Carbon Nanotube Networks for Digital, Analog, and Radio-Frequency Applications. Nano Letters, 2012, 12, 1527-1533. | 9.1 | 292 |
| 56 | A Wearable Microfluidic Sensing Patch for Dynamic Sweat Secretion Analysis. ACS Sensors, 2018, 3, 944-952. | 7.8 | 285 |
| 57 | High-Gain Inverters Based on WSe<sub>2</sub> Complementary Field-Effect Transistors. ACS Nano, 2014, 8, 4948-4953. | 14.6 | 284 |
| 58 | Carbon nanotube electronics â€“ moving forward. Chemical Society Reviews, 2013, 42, 2592-2609. | 38.1 | 276 |
| 59 | Roll-to-Roll Gravure Printed Electrochemical Sensors for Wearable and Medical Devices. ACS Nano, 2018, 12, 6978-6987. | 14.6 | 275 |
| 60 | Carbon Nanotube Active-Matrix Backplanes for Conformal Electronics and Sensors. Nano Letters, 2011, 11, 5408-5413. | 9.1 | 270 |
| 61 | Ordered Arrays of Dual-Diameter Nanopillars for Maximized Optical Absorption. Nano Letters, 2010, 10, 3823-3827. | 9.1 | 269 |
| 62 | Photoactuators and motors based on carbon nanotubes with selective chirality distributions. Nature Communications, 2014, 5, 2983. | 12.8 | 269 |
| 63 | High Photoluminescence Quantum Yield in Band Gap Tunable Bromide Containing Mixed Halide Perovskites. Nano Letters, 2016, 16, 800-806. | 9.1 | 269 |
| 64 | Strain-engineered growth of two-dimensional materials. Nature Communications, 2017, 8, 608. | 12.8 | 253 |
| 65 | 2D-2D tunneling field-effect transistors using WSe2/SnSe2 heterostructures. Applied Physics Letters, 2016, 108, . | 3.3 | 252 |
| 66 | Temperature-adaptive radiative coating for all-season household thermal regulation. Science, 2021, 374, 1504-1509. | 12.6 | 251 |
| 67 | pâ€Type InP Nanopillar Photocathodes for Efficient Solarâ€Driven Hydrogen Production. Angewandte Chemie - International Edition, 2012, 51, 10760-10764. | 13.8 | 245 |
| 68 | Electrical suppression of all nonradiative recombination pathways in monolayer semiconductors. Science, 2019, 364, 468-471. | 12.6 | 243 |
| 69 | Integration of suspended carbon nanotube arrays into electronic devices and electromechanical systems. Applied Physics Letters, 2002, 81, 913-915. | 3.3 | 237 |
| 70 | Metal-catalyzed crystallization of amorphous carbon to graphene. Applied Physics Letters, 2010, 96, . | 3.3 | 234 |
| 71 | Highly sensitive electronic whiskers based on patterned carbon nanotube and silver nanoparticle composite films. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 1703-1707. | 7.1 | 234 |
| 72 | Regional and correlative sweat analysis using high-throughput microfluidic sensing patches toward decoding sweat. Science Advances, 2019, 5, eaaw9906. | 10.3 | 234 |

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|---|---|---|---|
| 73 | Large-scale, heterogeneous integration of nanowire arrays for image sensor circuitry. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 11066-11070. | 7.1 | 233 |
| 74 | Recombination Kinetics and Effects of Superacid Treatment in Sulfur- and Selenium-Based Transition Metal Dichalcogenides. Nano Letters, 2016, 16, 2786-2791. | 9.1 | 233 |
| 75 | Dramatic Reduction of Surface Recombination by in Situ Surface Passivation of Silicon Nanowires. Nano Letters, 2011, 11, 2527-2532. | 9.1 | 230 |
| 76 | Methylxanthine Drug Monitoring with Wearable Sweat Sensors. Advanced Materials, 2018, 30, e1707442. | 21.0 | 226 |
| 77 | Challenges and prospects of nanopillar-based solar cells. Nano Research, 2009, 2, 829. | 10.4 | 223 |
| 78 | Highly deformable liquid-state heterojunction sensors. Nature Communications, 2014, 5, 5032. | 12.8 | 221 |
| 79 | Air Stable p-Doping of WSe<sub>2</sub> by Covalent Functionalization. ACS Nano, 2014, 8, 10808-10814. | 14.6 | 208 |
| 80 | Electrical contacts to carbon nanotubes down to 1nm in diameter. Applied Physics Letters, 2005, 87, 173101. | 3.3 | 205 |
| 81 | Efficient and Sustained Photoelectrochemical Water Oxidation by Cobalt Oxide/Silicon Photoanodes with Nanotextured Interfaces. Journal of the American Chemical Society, 2014, 136, 6191-6194. | 13.7 | 204 |
| 82 | Air-Stable n-Doping of WSe<sub>2</sub> by Anion Vacancy Formation with Mild Plasma Treatment. ACS Nano, 2016, 10, 6853-6860. | 14.6 | 202 |
| 83 | Flexible Electrochemical Bioelectronics: The Rise of In Situ Bioanalysis. Advanced Materials, 2020, 32, e1902083. | 21.0 | 200 |
| 84 | Largeâ€Area Compliant Tactile Sensors Using Printed Carbon Nanotube Activeâ€Matrix Backplanes. Advanced Materials, 2015, 27, 1561-1566. | 21.0 | 198 |
| 85 | Patterned growth of single-walled carbon nanotubes on full 4-inch wafers. Applied Physics Letters, 2001, 79, 4571-4573. | 3.3 | 195 |
| 86 | Magnesium Fluoride Electron-Selective Contacts for Crystalline Silicon Solar Cells. ACS Applied Materials & Interfaces, 2016, 8, 14671-14677. | 8.0 | 188 |
| 87 | Miniature Organic Transistors with Carbon Nanotubes as Quasi-One-Dimensional Electrodes. Journal of the American Chemical Society, 2004, 126, 11774-11775. | 13.7 | 184 |
| 88 | Mid-Wave Infrared Photoconductors Based on Black Phosphorus-Arsenic Alloys. ACS Nano, 2017, 11, 11724-11731. | 14.6 | 184 |
| 89 | A Fully Integrated and Self-Powered Smartwatch for Continuous Sweat Glucose Monitoring. ACS Sensors, 2019, 4, 1925-1933. | 7.8 | 184 |
| 90 | A wearable patch for continuous analysis of thermoregulatory sweat at rest. Nature Communications, 2021, 12, 1823. | 12.8 | 181 |

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|---|---|---|---|
| 91 | Conductive and Stable Magnesium Oxide Electronâ€Selective Contacts for Efficient Silicon Solar Cells. Advanced Energy Materials, 2017, 7, 1601863. | 19.5 | 174 |
| 92 | Hole Contacts on Transition Metal Dichalcogenides: Interface Chemistry and Band Alignments. ACS Nano, 2014, 8, 6265-6272. | 14.6 | 173 |
| 93 | Application of 3D Printing for Smart Objects with Embedded Electronic Sensors and Systems. Advanced Materials Technologies, 2016, 1, 1600013. | 5.8 | 167 |
| 94 | Stable Dopant-Free Asymmetric Heterocontact Silicon Solar Cells with Efficiencies above 20%. ACS Energy Letters, 2018, 3, 508-513. | 17.4 | 164 |
| 95 | Reactive Sputtering of Bismuth Vanadate Photoanodes for Solar Water Splitting. Journal of Physical Chemistry C, 2013, 117, 21635-21642. | 3.1 | 162 |
| 96 | Ballistic InAs Nanowire Transistors. Nano Letters, 2013, 13, 555-558. | 9.1 | 155 |
| 97 | Evaporated tellurium thin films for p-type field-effect transistors and circuits. Nature Nanotechnology, 2020, 15, 53-58. | 31.5 | 153 |
| 98 | Amorphous Si Thin Film Based Photocathodes with High Photovoltage for Efficient Hydrogen Production. Nano Letters, 2013, 13, 5615-5618. | 9.1 | 151 |
| 99 | Smart Actuators and Adhesives for Reconfigurable Matter. Accounts of Chemical Research, 2017, 50, 691-702. | 15.6 | 151 |
| 100 | Wafer-Scale, Sub-5 nm Junction Formation by Monolayer Doping and Conventional Spike Annealing. Nano Letters, 2009, 9, 725-730. | 9.1 | 148 |
| 101 | Large-area and bright pulsed electroluminescence in monolayer semiconductors. Nature Communications, 2018, 9, 1229. | 12.8 | 146 |
| 102 | Efficient solar-driven electrochemical CO<sub>2</sub> reduction to hydrocarbons and oxygenates. Energy and Environmental Science, 2017, 10, 2222-2230. | 30.8 | 145 |
| 103 | ELECTRICAL TRANSPORT PROPERTIES AND FIELD EFFECT TRANSISTORS OF CARBON NANOTUBES. Nano, 2006, 01, 1-13. | 1.0 | 142 |
| 104 | Nanopillar photovoltaics: Materials, processes, and devices. Nano Energy, 2012, 1, 132-144. | 16.0 | 142 |
| 105 | Room temperature multiplexed gas sensing using chemical-sensitive 3.5-nm-thin silicon transistors. Science Advances, 2017, 3, e1602557. | 10.3 | 142 |
| 106 | High Luminescence Efficiency in MoS<sub>2</sub> Grown by Chemical Vapor Deposition. ACS Nano, 2016, 10, 6535-6541. | 14.6 | 140 |
| 107 | Defective TiO2 with high photoconductive gain for efficient and stable planar heterojunction perovskite solar cells. Nature Communications, 2016, 7, 12446. | 12.8 | 139 |
| 108 | Engineering Light Outcoupling in 2D Materials. Nano Letters, 2015, 15, 1356-1361. | 9.1 | 138 |

| # | Article | IF | Citations |
|---|---|---|---|
| 109 | Extremely reduced dielectric confinement in two-dimensional hybrid perovskites with large polar organics. Communications Physics, 2018, 1, . | 5.3 | 135 |
| 110 | Ten- to 50-nm-long quasi-ballistic carbon nanotube devices obtained without complex lithography. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 13408-13410. | 7.1 | 134 |
| 111 | Lithium Fluoride Based Electron Contacts for High Efficiency nâ€Type Crystalline Silicon Solar Cells. Advanced Energy Materials, 2016, 6, 1600241. | 19.5 | 134 |
| 112 | Actively variable-spectrum optoelectronics with black phosphorus. Nature, 2021, 596, 232-237. | 27.8 | 132 |
| 113 | Monolithic Integration of Carbon Nanotube Devices with Silicon MOS Technology. Nano Letters, 2004, 4, 123-127. | 9.1 | 131 |
| 114 | Role of TiO<sub>2</sub> Surface Passivation on Improving the Performance of p-InP Photocathodes. Journal of Physical Chemistry C, 2015, 119, 2308-2313. | 3.1 | 127 |
| 115 | Tantalum Oxide Electron-Selective Heterocontacts for Silicon Photovoltaics and Photoelectrochemical Water Reduction. ACS Energy Letters, 2018, 3, 125-131. | 17.4 | 127 |
| 116 | Palladium/silicon nanowire Schottky barrier-based hydrogen sensors. Sensors and Actuators B: Chemical, 2010, 145, 232-238. | 7.8 | 124 |
| 117 | Wearable Sweat Band for Noninvasive Levodopa Monitoring. Nano Letters, 2019, 19, 6346-6351. | 9.1 | 121 |
| 118 | Porous Enzymatic Membrane for Nanotextured Glucose Sweat Sensors with High Stability toward Reliable Noninvasive Health Monitoring. Advanced Functional Materials, 2019, 29, 1902521. | 14.9 | 120 |
| 119 | Electrical properties and devices of large-diameter single-walled carbon nanotubes. Applied Physics Letters, 2002, 80, 1064-1066. | 3.3 | 118 |
| 120 | Large scale, highly ordered assembly of nanowire parallel arrays by differential roll printing. Applied Physics Letters, 2007, 91, . | 3.3 | 117 |
| 121 | Uncovering the intrinsic size dependence of hydriding phase transformations in nanocrystals. Nature Materials, 2013, 12, 905-912. | 27.5 | 116 |
| 122 | 19.2% Efficient InP Heterojunction Solar Cell with Electron-Selective TiO<sub>2</sub> Contact. ACS Photonics, 2014, 1, 1245-1250. | 6.6 | 116 |
| 123 | Monolithic 3D CMOS Using Layered Semiconductors. Advanced Materials, 2016, 28, 2547-2554. | 21.0 | 107 |
| 124 | General Thermal Texturization Process of MoS<sub>2</sub> for Efficient Electrocatalytic Hydrogen Evolution Reaction. Nano Letters, 2016, 16, 4047-4053. | 9.1 | 106 |
| 125 | Parallel Array InAs Nanowire Transistors for Mechanically Bendable, Ultrahigh Frequency Electronics. ACS Nano, 2010, 4, 5855-5860. | 14.6 | 105 |
| 126 | Low-Resistance Electrical Contact to Carbon Nanotubes With Graphitic Interfacial Layer. IEEE Transactions on Electron Devices, 2012, 59, 12-19. | 3.0 | 105 |

| # | Article | IF | Citations |
|---|---|---|---|
| 127 | 3D Printed â€œEarableâ€•Smart Devices for Real-Time Detection of Core Body Temperature. ACS Sensors, 2017, 2, 990-997. | 7.8 | 105 |
| 128 | Band Tailing and Deep Defect States in CH<sub>3</sub>NH<sub>3</sub>Pb(I<sub>1â€“x</sub>Br<sub>x</sub>)<sub>3</sub> Perovskites As Revealed by Sub-Bandgap Photocurrent. ACS Energy Letters, 2017, 2, 709-715. | 17.4 | 102 |
| 129 | Wafer-Scale Growth of WSe<sub>2</sub> Monolayers Toward Phase-Engineered Hybrid WO<sub>x</sub>/WSe<sub>2</sub> Films with Sub-ppb NO<sub>x</sub> Gas Sensing by a Low-Temperature Plasma-Assisted Selenization Process. Chemistry of Materials, 2017, 29, 1587-1598. | 6.7 | 99 |
| 130 | Quantum Confinement Effects in Nanoscale-Thickness InAs Membranes. Nano Letters, 2011, 11, 5008-5012. | 9.1 | 97 |
| 131 | A Low Resistance Calcium/Reduced Titania Passivated Contact for High Efficiency Crystalline Silicon Solar Cells. Advanced Energy Materials, 2017, 7, 1602606. | 19.5 | 97 |
| 132 | A fully roll-to-roll gravure-printed carbon nanotube-based active matrix for multi-touch sensors. Scientific Reports, 2015, 5, 17707. | 3.3 | 96 |
| 133 | Regular Arrays of 2 nm Metal Nanoparticles for Deterministic Synthesis of Nanomaterials. Journal of the American Chemical Society, 2005, 127, 11942-11943. | 13.7 | 95 |
| 134 | Defect passivation of transition metal dichalcogenides via a charge transfer van der Waals interface. Science Advances, 2017, 3, e1701661. | 10.3 | 95 |
| 135 | MoS2 Heterojunctions by Thickness Modulation. Scientific Reports, 2015, 5, 10990. | 3.3 | 93 |
| 136 | Si photocathode with Ag-supported dendritic Cu catalyst for CO<sub>2</sub>reduction. Energy and Environmental Science, 2019, 12, 1068-1077. | 30.8 | 93 |
| 137 | Highly Uniform and Stable n-Type Carbon Nanotube Transistors by Using Positively Charged Silicon Nitride Thin Films. Nano Letters, 2015, 15, 392-397. | 9.1 | 92 |
| 138 | Efficient Formation of Iron Nanoparticle Catalysts on Silicon Oxide by Hydroxylamine for Carbon Nanotube Synthesis and Electronics. Nano Letters, 2003, 3, 157-161. | 9.1 | 90 |
| 139 | Chemical Bath Deposition of p-Type Transparent, Highly Conducting (CuS)<sub>x</sub>:(ZnS)<sub>1â€“x</sub> Nanocomposite Thin Films and Fabrication of Si Heterojunction Solar Cells. Nano Letters, 2016, 16, 1925-1932. | 9.1 | 89 |
| 140 | Highly Stable Hysteresis-Free Carbon Nanotube Thin-Film Transistors by Fluorocarbon Polymer Encapsulation. ACS Applied Materials & Interfaces, 2014, 6, 8441-8446. | 8.0 | 87 |
| 141 | Carbon Nanotube Active-Matrix Backplanes for Mechanically Flexible Visible Light and X-ray Imagers. Nano Letters, 2013, 13, 5425-5430. | 9.1 | 86 |
| 142 | Artificial Photosynthesis on TiO<sub>2</sub>-Passivated InP Nanopillars. Nano Letters, 2015, 15, 6177-6181. | 9.1 | 86 |
| 143 | Highly Stable Near-Unity Photoluminescence Yield in Monolayer MoS<sub>2</sub> by Fluoropolymer Encapsulation and Superacid Treatment. ACS Nano, 2017, 11, 5179-5185. | 14.6 | 86 |
| 144 | Glove-based sensors for multimodal monitoring of natural sweat. Science Advances, 2020, 6, eabb8308. | 10.3 | 86 |

| # | Article | IF | Citations |
|---|---|---|---|
| 145 | Nanoscale InGaSb Heterostructure Membranes on Si Substrates for High Hole Mobility Transistors. Nano Letters, 2012, 12, 2060-2066. | 9.1 | 85 |
| 146 | Short-Channel Transistors Constructed with Solution-Processed Carbon Nanotubes. ACS Nano, 2013, 7, 798-803. | 14.6 | 83 |
| 147 | IIIâ€“V Complementary Metalâ€“Oxideâ€“Semiconductor Electronics on Silicon Substrates. Nano Letters, 2012, 12, 3592-3595. | 9.1 | 80 |
| 148 | Design constraints and guidelines for CdS/CdTe nanopillar based photovoltaics. Applied Physics Letters, 2010, 96, . | 3.3 | 78 |
| 149 | Nanoscale Bipolar and Complementary Resistive Switching Memory Based on Amorphous Carbon. IEEE Transactions on Electron Devices, 2011, 58, 3933-3939. | 3.0 | 78 |
| 150 | Synthetic WSe <sub>2</sub> monolayers with high photoluminescence quantum yield. Science Advances, 2019, 5, eaau4728. | 10.3 | 78 |
| 151 | BiVO<sub>4</sub>thin film photoanodes grown by chemical vapor deposition. Physical Chemistry Chemical Physics, 2014, 16, 1651-1657. | 2.8 | 77 |
| 152 | Dopantâ€Free Partial Rear Contacts Enabling 23% Silicon Solar Cells. Advanced Energy Materials, 2019, 9, 1803367. | 19.5 | 77 |
| 153 | Traceâ€Level, Multiâ€Gas Detection for Food Quality Assessment Based on Decorated Silicon Transistor Arrays. Advanced Materials, 2020, 32, e1908385. | 21.0 | 77 |
| 154 | Ultrathin body InAs tunneling field-effect transistors on Si substrates. Applied Physics Letters, 2011, 98, . | 3.3 | 76 |
| 155 | Air stable n-doping of WSe2 by silicon nitride thin films with tunable fixed charge density. APL Materials, 2014, 2, . | 5.1 | 76 |
| 156 | Quantum of optical absorption in two-dimensional semiconductors. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 11688-11691. | 7.1 | 75 |
| 157 | Optical and electrical properties of two-dimensional palladium diselenide. Applied Physics Letters, 2019, 114, . | 3.3 | 74 |
| 158 | Self-Aligned, Extremely High Frequency IIIâ€“V Metal-Oxide-Semiconductor Field-Effect Transistors on Rigid and Flexible Substrates. Nano Letters, 2012, 12, 4140-4145. | 9.1 | 73 |
| 159 | Nanoscale doping of InAs via sulfur monolayers. Applied Physics Letters, 2009, 95, . | 3.3 | 71 |
| 160 | Near-ideal electrical properties of InAs/WSe2 van der Waals heterojunction diodes. Applied Physics Letters, 2013, 102, . | 3.3 | 71 |
| 161 | Synthesis, contact printing, and device characterization of Ni-catalyzed, crystalline InAs nanowires. Nano Research, 2008, 1, 32-39. | 10.4 | 70 |
| 162 | Monolayer Resist for Patterned Contact Printing of Aligned Nanowire Arrays. Journal of the American Chemical Society, 2009, 131, 2102-2103. | 13.7 | 70 |

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|---|---|---|---|
| 163 | A Wearable Nutrition Tracker. Advanced Materials, 2021, 33, e2006444. | 21.0 | 70 |
| 164 | Black Ge Based on Crystalline/Amorphous Core/Shell Nanoneedle Arrays. Nano Letters, 2010, 10, 520-523. | 9.1 | 68 |
| 165 | Increasing Photoluminescence Quantum Yield by Nanophotonic Design of Quantum-Confined Halide Perovskite Nanowire Arrays. Nano Letters, 2019, 19, 2850-2857. | 9.1 | 67 |
| 166 | Observation of Degenerate One-Dimensional Sub-Bands in Cylindrical InAs Nanowires. Nano Letters, 2012, 12, 1340-1343. | 9.1 | 65 |
| 167 | A direct thin-film path towards low-cost large-area III-V photovoltaics. Scientific Reports, 2013, 3, 2275. | 3.3 | 65 |
| 168 | Cation-Dependent Light-Induced Halide Demixing in Hybrid Organicâ€“Inorganic Perovskites. Nano Letters, 2018, 18, 3473-3480. | 9.1 | 65 |
| 169 | Electrical Properties of Synthesized Large-Area MoS2 Field-Effect Transistors Fabricated with Inkjet-Printed Contacts. ACS Nano, 2016, 10, 2819-2826. | 14.6 | 64 |
| 170 | Neutral Exciton Diffusion in Monolayer MoS<sub>2</sub>. ACS Nano, 2020, 14, 13433-13440. | 14.6 | 62 |
| 171 | Formation and Characterization of NixInAs/InAs Nanowire Heterostructures by Solid Source Reaction. Nano Letters, 2008, 8, 4528-4533. | 9.1 | 61 |
| 172 | Prospect of tunneling green transistor for 0.1V CMOS. , 2010, , . | | 61 |
| 173 | Fully printed flexible and disposable wireless cyclic voltammetry tag. Scientific Reports, 2015, 5, 8105. | 3.3 | 61 |
| 174 | Design of Surfactantâ€“Substrate Interactions for Roll-to-Roll Assembly of Carbon Nanotubes for Thin-Film Transistors. Journal of the American Chemical Society, 2014, 136, 11188-11194. | 13.7 | 60 |
| 175 | Calcium contacts to nâ€type crystalline silicon solar cells. Progress in Photovoltaics: Research and Applications, 2017, 25, 636-644. | 8.1 | 60 |
| 176 | Hybrid Coreâ^'Shell Nanowire Forests as Self-Selective Chemical Connectors. Nano Letters, 2009, 9, 2054-2058. | 9.1 | 59 |
| 177 | Strong optical response and light emission from a monolayer molecular crystal. Nature Communications, 2019, 10, 5589. | 12.8 | 59 |
| 178 | Roll-to-Roll Anodization and Etching of Aluminum Foils for High-Throughput Surface Nanotexturing. Nano Letters, 2011, 11, 3425-3430. | 9.1 | 58 |
| 179 | Contact printing of compositionally graded CdS<sub>x</sub>Se<sub>1â^'x</sub>nanowire parallel arrays for tunable photodetectors. Nanotechnology, 2012, 23, 045201. | 2.6 | 58 |
| 180 | Patterned p-Doping of InAs Nanowires by Gas-Phase Surface Diffusion of Zn. Nano Letters, 2010, 10, 509-513. | 9.1 | 57 |

| # | Article | IF | Citations |
|---|---|---|---|
| 181 | Room Temperature Oxide Deposition Approach to Fully Transparent, Allâ€Oxide Thinâ€Film Transistors. Advanced Materials, 2015, 27, 6090-6095. | 21.0 | 57 |
| 182 | A multi-modal sweat sensing patch for cross-verification of sweat rate, total ionic charge, and Na<sup>+</sup> concentration. Lab on A Chip, 2019, 19, 3179-3189. | 6.0 | 56 |
| 183 | Physical and Chemical Sensing With Electronic Skin. Proceedings of the IEEE, 2019, 107, 2155-2167. | 21.3 | 56 |
| 184 | Wearable Biosensors for Body Computing. Advanced Functional Materials, 2021, 31, 2008087. | 14.9 | 56 |
| 185 | Molecular monolayers for conformal, nanoscale doping of InP nanopillar photovoltaics. Applied Physics Letters, 2011, 98, . | 3.3 | 54 |
| 186 | Solutionâ€Processed Transparent Selfâ€Powered pâ€CuSâ€ZnS/nâ€ZnO UV Photodiode. Physica Status Solidi - Rapid Research Letters, 2018, 12, 1700381. | 2.4 | 54 |
| 187 | Electron-Selective TiO2 Contact for Cu(In,Ga)Se2 Solar Cells. Scientific Reports, 2015, 5, 16028. | 3.3 | 52 |
| 188 | Enhanced Photocatalytic Reduction of CO<sub>2</sub> to CO through TiO<sub>2</sub> Passivation of InP in Ionic Liquids. Chemistry - A European Journal, 2015, 21, 13502-13507. | 3.3 | 52 |
| 189 | Inhibited nonradiative decay at all exciton densities in monolayer semiconductors. Science, 2021, 373, 448-452. | 12.6 | 52 |
| 190 | Spin-On Organic Polymer Dopants for Silicon. Journal of Physical Chemistry Letters, 2013, 4, 3741-3746. | 4.6 | 51 |
| 191 | Substrate-Dependent Exciton Diffusion and Annihilation in Chemically Treated MoS<sub>2</sub> and WS<sub>2</sub>. Journal of Physical Chemistry C, 2020, 124, 12175-12184. | 3.1 | 51 |
| 192 | Recycling Is Not Always Good: The Dangers of Self-Plagiarism. ACS Nano, 2012, 6, 1-4. | 14.6 | 49 |
| 193 | Evaporated Se<sub>x</sub>Te<sub>1â€</sub><sub>x</sub> Thin Films with Tunable Bandgaps for Shortâ€Wave Infrared Photodetectors. Advanced Materials, 2020, 32, e2001329. | 21.0 | 49 |
| 194 | Fully R2Râ€Printed Carbonâ€Nanotubeâ€Based Limitless Length of Flexible Activeâ€Matrix for Electrophoretic Display Application. Advanced Electronic Materials, 2020, 6, 1901431. | 5.1 | 49 |
| 195 | The 2008 Kavli Prize in Nanoscience: Carbon Nanotubes. ACS Nano, 2008, 2, 1329-1335. | 14.6 | 48 |
| 196 | Nicotine Monitoring with a Wearable Sweat Band. ACS Sensors, 2020, 5, 1831-1837. | 7.8 | 48 |
| 197 | Performance Enhancement of a Graphene-Zinc Phosphide Solar Cell Using the Electric Field-Effect. Nano Letters, 2014, 14, 4280-4285. | 9.1 | 45 |
| 198 | Direct growth of single-crystalline IIIâ€“V semiconductors on amorphous substrates. Nature Communications, 2016, 7, 10502. | 12.8 | 45 |

| # | Article | IF | Citations |
|---|---|---|---|
| 199 | Flexible Carbonâ€Nanofiber Connectors with Anisotropic Adhesion Properties. Small, 2010, 6, 22-26. | 10.0 | 44 |
| 200 | Intrinsic Optoelectronic Characteristics of MoS<sub>2</sub> Phototransistors via a Fully Transparent van der Waals Heterostructure. ACS Nano, 2019, 13, 9638-9646. | 14.6 | 43 |
| 201 | Nanoscale Semiconductor â€œXâ€•on Substrate â€œYâ€•â€“ Processes, Devices, and Applications. Advanced Materials, 2011, 23, 3115-3127. | 21.0 | 42 |
| 202 | Quantum Size Effects on the Chemical Sensing Performance of Two-Dimensional Semiconductors. Journal of Physical Chemistry C, 2012, 116, 9750-9754. | 3.1 | 41 |
| 203 | Highly Sensitive Bulk Silicon Chemical Sensors with Sub-5 nm Thin Charge Inversion Layers. ACS Nano, 2018, 12, 2948-2954. | 14.6 | 41 |
| 204 | Benchmarking the performance of ultrathin body InAs-on-insulator transistors as a function of body thickness. Applied Physics Letters, 2011, 99, . | 3.3 | 40 |
| 205 | Superacid-Treated Silicon Surfaces: Extending the Limit of Carrier Lifetime for Photovoltaic Applications. IEEE Journal of Photovoltaics, 2017, 7, 1574-1583. | 2.5 | 40 |
| 206 | Multifunctional, flexible electronic systems based on engineered nanostructured materials. Nanotechnology, 2012, 23, 344001. | 2.6 | 38 |
| 207 | Integrated Manufacture of Exoskeletons and Sensing Structures for Folded Millirobots. Journal of Mechanisms and Robotics, 2015, 7, . | 2.2 | 38 |
| 208 | Superacid Passivation of Crystalline Silicon Surfaces. ACS Applied Materials & Interfaces, 2016, 8, 24205-24211. | 8.0 | 38 |
| 209 | Phosphine Oxide Monolayers on SiO<sub>2</sub> Surfaces. Angewandte Chemie - International Edition, 2008, 47, 4440-4442. | 13.8 | 37 |
| 210 | Solar cells on curtains. Nature Materials, 2008, 7, 835-836. | 27.5 | 37 |
| 211 | Fermi level stabilization and band edge energies in CdxZn1â^'xO alloys. Journal of Applied Physics, 2014, 115, . | 2.5 | 37 |
| 212 | Temperature and Humidity Stable Alkali/Alkalineâ€Earth Metal Carbonates as Electron Heterocontacts for Silicon Photovoltaics. Advanced Energy Materials, 2018, 8, 1800743. | 19.5 | 35 |
| 213 | Polymeric Electron-Selective Contact for Crystalline Silicon Solar Cells with an Efficiency Exceeding 19%. ACS Energy Letters, 2020, 5, 897-902. | 17.4 | 35 |
| 214 | High quality interfaces of InAs-on-insulator field-effect transistors with ZrO2 gate dielectrics. Applied Physics Letters, 2013, 102, . | 3.3 | 33 |
| 215 | Nonepitaxial Thin-Film InP for Scalable and Efficient Photocathodes. Journal of Physical Chemistry Letters, 2015, 6, 2177-2182. | 4.6 | 33 |
| 216 | Deterministic Nucleation of InP on Metal Foils with the Thin-Film Vaporâ€“Liquidâ€“Solid Growth Mode. Chemistry of Materials, 2014, 26, 1340-1344. | 6.7 | 32 |

| # | Article | IF | Citations |
|---|---|---|---|
| 217 | Highly Reliable Superhydrophobic Protection for Organic Field-Effect Transistors by Fluoroalkylsilane-Coated TiO<sub>2</sub> Nanoparticles. ACS Nano, 2018, 12, 11062-11069. | 14.6 | 32 |
| 218 | Tellurium Singleâ€Crystal Arrays by Lowâ€Temperature Evaporation and Crystallization. Advanced Materials, 2021, 33, e2100860. | 21.0 | 32 |
| 219 | Wet and Dry Adhesion Properties of Selfâ€Selective Nanowire Connectors. Advanced Functional Materials, 2009, 19, 3098-3102. | 14.9 | 31 |
| 220 | Hierarchical polymer micropillar arrays decorated with ZnO nanowires. Nanotechnology, 2010, 21, 295305. | 2.6 | 30 |
| 221 | Comparative study of solution-processed carbon nanotube network transistors. Applied Physics Letters, 2012, 101, 112104. | 3.3 | 30 |
| 222 | Thermoresponsive Chemical Connectors Based on Hybrid Nanowire Forests. Angewandte Chemie - International Edition, 2010, 49, 616-619. | 13.8 | 29 |
| 223 | Shape-Controlled Synthesis of Single-Crystalline Nanopillar Arrays by Template-Assisted Vaporâ^'Liquidâ^'Solid Process. Journal of the American Chemical Society, 2010, 132, 13972-13974. | 13.7 | 29 |
| 224 | Improved photoswitching response times of MoS2 field-effect transistors by stacking p-type copper phthalocyanine layer. Applied Physics Letters, 2016, 109, . | 3.3 | 29 |
| 225 | Long-Wave Infrared Photodetectors Based on 2D Platinum Diselenide atop Optical Cavity Substrates. ACS Nano, 2021, 15, 6573-6581. | 14.6 | 29 |
| 226 | Hybrid core-multishell nanowire forests for electrical connector applications. Applied Physics Letters, 2009, 94, 263110. | 3.3 | 28 |
| 227 | Ultrathin-Body High-Mobility InAsSb-on-Insulator Field-Effect Transistors. IEEE Electron Device Letters, 2012, 33, 504-506. | 3.9 | 28 |
| 228 | Dip Coating Passivation of Crystalline Silicon by Lewis Acids. ACS Nano, 2019, 13, 3723-3729. | 14.6 | 28 |
| 229 | Rationally Designed, Threeâ€Dimensional Carbon Nanotube Backâ€Contacts for Efficient Solar Devices. Advanced Energy Materials, 2011, 1, 1040-1045. | 19.5 | 27 |
| 230 | Vertically aligned tungsten oxide nanorod film with enhanced performance in photoluminescence humidity sensing. Sensors and Actuators B: Chemical, 2014, 202, 708-713. | 7.8 | 27 |
| 231 | Scanning Probe Lithography Patterning of Monolayer Semiconductors and Application in Quantifying Edge Recombination. Advanced Materials, 2019, 31, e1900136. | 21.0 | 27 |
| 232 | Elimination of Response to Relative Humidity Changes in Chemical-Sensitive Field-Effect Transistors. ACS Sensors, 2019, 4, 1857-1863. | 7.8 | 24 |
| 233 | Generic Nanomaterial Positioning by Carrier and Stationary Phase Design. Nano Letters, 2007, 7, 2764-2768. | 9.1 | 23 |
| 234 | Nanoscale Structural Engineering via Phase Segregation: Auâ^'Ge System. Nano Letters, 2010, 10, 393-397. | 9.1 | 23 |

| # | Article | IF | Citations |
|---|---|---|---|
| 235 | Strain engineering of epitaxially transferred, ultrathin layers of III-V semiconductor on insulator. Applied Physics Letters, 2011, 98, 012111. | 3.3 | 23 |
| 236 | Determining Atomic-Scale Structure and Composition of Organo-Lead Halide Perovskites by Combining High-Resolution X-ray Absorption Spectroscopy and First-Principles Calculations. ACS Energy Letters, 2017, 2, 1183-1189. | 17.4 | 23 |
| 237 | Spatially Precise Transfer of Patterned Monolayer WS<sub>2</sub> and MoS<sub>2</sub> with Features Larger than 10<sup>4</sup> Î¼m<sup>2</sup> Directly from Multilayer Sources. ACS Applied Electronic Materials, 2019, 1, 407-416. | 4.3 | 23 |
| 238 | A generic electroluminescent device for emission from infrared to ultraviolet wavelengths. Nature Electronics, 2020, 3, 612-621. | 26.0 | 23 |
| 239 | Mid- to long-wave infrared computational spectroscopy with a graphene metasurface modulator. Scientific Reports, 2020, 10, 5377. | 3.3 | 23 |
| 240 | Resettable Microfluidics for Broad-Range and Prolonged Sweat Rate Sensing. ACS Sensors, 2022, 7, 1156-1164. | 7.8 | 23 |
| 241 | Nanoscience and Nanotechnology Impacting Diverse Fields of Science, Engineering, and Medicine. ACS Nano, 2016, 10, 10615-10617. | 14.6 | 22 |
| 242 | Nanoscale Junction Formation by Gas-Phase Monolayer Doping. ACS Applied Materials & Interfaces, 2017, 9, 20648-20655. | 8.0 | 22 |
| 243 | Anomalously Suppressed Thermal Conduction by Electronâ€Phonon Coupling in Chargeâ€Densityâ€Wave Tantalum Disulfide. Advanced Science, 2020, 7, 1902071. | 11.2 | 22 |
| 244 | High optical quality polycrystalline indium phosphide grown on metal substrates by metalorganic chemical vapor deposition. Journal of Applied Physics, 2012, 111, 123112. | 2.5 | 21 |
| 245 | Enhanced Nearâ€Bandgap Response in InP Nanopillar Solar Cells. Advanced Energy Materials, 2014, 4, 1400061. | 19.5 | 21 |
| 246 | Oriented Growth of Gold Nanowires on MoS<sub>2</sub>. Advanced Functional Materials, 2015, 25, 6257-6264. | 14.9 | 21 |
| 247 | Compliant substrate epitaxy: Au on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi>MoS</mml:mi><mml:mn>2</mml:mn></mml:msub></mm Physical Review B, 2016, 93, . | 3.2 | 21 |
| 248 | Origin of multi-level switching and telegraphic noise in organic nanocomposite memory devices. Scientific Reports, 2016, 6, 33967. | 3.3 | 21 |
| 249 | Extreme In-Plane Thermal Conductivity Anisotropy in Titanium Trisulfide Caused by Heat-Carrying Optical Phonons. Nano Letters, 2020, 20, 5221-5227. | 9.1 | 21 |
| 250 | Wearable sweat biosensors. , 2016, , . | | 20 |
| 251 | IIIâ€Vs at scale: a PV manufacturing cost analysis of the thin film vaporâ€“liquidâ€“solid growth mode. Progress in Photovoltaics: Research and Applications, 2016, 24, 871-878. | 8.1 | 20 |
| 252 | Centimeterâ€Scale and Visible Wavelength Monolayer Lightâ€Emitting Devices. Advanced Functional Materials, 2020, 30, 1907941. | 14.9 | 20 |

| # | Article | IF | Citations |
|---|---|---|---|
| 253 | Universal Inverse Scaling of Excitonâ€“Exciton Annihilation Coefficient with Exciton Lifetime. Nano Letters, 2021, 21, 424-429. | 9.1 | 20 |
| 254 | Lightâ€“Matter Interaction Enhancement in Anisotropic 2D Black Phosphorus via Polarization-Tailoring Nano-Optics. ACS Photonics, 2021, 8, 1120-1128. | 6.6 | 20 |
| 255 | Surface Charge Transfer Doping of IIIâ€“V Nanostructures. Journal of Physical Chemistry C, 2013, 117, 17845-17849. | 3.1 | 19 |
| 256 | Quantum Well InAs/AlSb/GaSb Vertical Tunnel FET With HSQ Mechanical Support. IEEE Nanotechnology Magazine, 2015, 14, 580-584. | 2.0 | 19 |
| 257 | Fully gravure printed complementary carbon nanotube TFTs for a clock signal generator using an epoxy-imine based cross-linker as an n-dopant and encapsulant. Nanoscale, 2016, 8, 19876-19881. | 5.6 | 19 |
| 258 | Measuring the Edge Recombination Velocity of Monolayer Semiconductors. Nano Letters, 2017, 17, 5356-5360. | 9.1 | 19 |
| 259 | Zirconium oxide surface passivation of crystalline silicon. Applied Physics Letters, 2018, 112, . | 3.3 | 19 |
| 260 | Bright Mid-Wave Infrared Resonant-Cavity Light-Emitting Diodes Based on Black Phosphorus. Nano Letters, 2022, 22, 1294-1301. | 9.1 | 19 |
| 261 | Morphological and spatial control of InP growth using closed-space sublimation. Journal of Applied Physics, 2012, 112, 123102. | 2.5 | 18 |
| 262 | Transistorâ€Based Workâ€Function Measurement of Metalâ€“Organic Frameworks for Ultraâ€Lowâ€Power, Rationally Designed Chemical Sensors. Chemistry - A European Journal, 2019, 25, 13176-13183. | 3.3 | 18 |
| 263 | Engineering Exciton Recombination Pathways in Bilayer WSe<sub>2</sub> for Bright Luminescence. ACS Nano, 2022, 16, 1339-1345. | 14.6 | 18 |
| 264 | Influence of catalyst choices on transport behaviors of InAs NWs for high-performance nanoscale transistors. Physical Chemistry Chemical Physics, 2013, 15, 2654. | 2.8 | 17 |
| 265 | Ultrafast Spontaneous Emission from a Slot-Antenna Coupled WSe<sub>2</sub> Monolayer. ACS Photonics, 2018, 5, 2701-2705. | 6.6 | 17 |
| 266 | Development of a compact neutron source based on field ionization processes. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2011, 29, 02B107. | 1.2 | 16 |
| 267 | Two-dimensional to three-dimensional tunneling in InAs/AlSb/GaSb quantum well heterojunctions. Journal of Applied Physics, 2013, 114, . | 2.5 | 16 |
| 268 | Electrodeposition of High-Purity Indium Thin Films and Its Application to Indium Phosphide Solar Cells. Journal of the Electrochemical Society, 2014, 161, D794-D800. | 2.9 | 16 |
| 269 | Thermal Stability of Hole-Selective Tungsten Oxide: In Situ Transmission Electron Microscopy Study. Scientific Reports, 2018, 8, 12651. | 3.3 | 16 |
| 270 | Integration of amorphous ferromagnetic oxides with multiferroic materials for room temperature magnetoelectric spintronics. Scientific Reports, 2020, 10, 3583. | 3.3 | 16 |

| # | Article | IF | Citations |
|---|---|---|---|
| 271 | Photovoltaic Material Characterization With Steady State and Transient Photoluminescence. IEEE Journal of Photovoltaics, 2015, 5, 282-287. | 2.5 | 15 |
| 272 | Carbon Nanotubes: From Growth, Placement and Assembly Control to 60mV/decade and Sub-60 mV/decade Tunnel Transistors. , 2006, , . | | 14 |
| 273 | A compact neutron generator using a field ionization source. Review of Scientific Instruments, 2012, 83, 02B312. | 1.3 | 14 |
| 274 | Analysis of the interface characteristics of CVD-grown monolayer MoS<sub>2</sub>by noise measurements. Nanotechnology, 2017, 28, 145702. | 2.6 | 14 |
| 275 | Thinâ€Film Solar Cells with InP Absorber Layers Directly Grown on Nonepitaxial Metal Substrates. Advanced Energy Materials, 2015, 5, 1501337. | 19.5 | 13 |
| 276 | Bright electroluminescence in ambient conditions from WSe2 p-n diodes using pulsed injection. Applied Physics Letters, 2019, 115, 011103. | 3.3 | 13 |
| 277 | Survey of dopant-free carrier-selective contacts for silicon solar cells. , 2016, , . | | 12 |
| 278 | Increased Optoelectronic Quality and Uniformity of Hydrogenated p-InP Thin Films. Chemistry of Materials, 2016, 28, 4602-4607. | 6.7 | 12 |
| 279 | Thermal stability for Te-based devices. Applied Physics Letters, 2020, 117, . | 3.3 | 12 |
| 280 | Deterministic Assembly of Arrays of Lithographically Defined WS2 and MoS2 Monolayer Features Directly From Multilayer Sources Into Van Der Waals Heterostructures. Journal of Micro and Nano-Manufacturing, 2019, 7, . | 0.7 | 12 |
| 281 | Effects of palladium coating on field-emission properties of carbon nanofibers in a hydrogen plasma. Thin Solid Films, 2013, 534, 488-491. | 1.8 | 11 |
| 282 | Performance Limits of an Alternating Current Electroluminescent Device. Advanced Materials, 2021, 33, e2005635. | 21.0 | 11 |
| 283 | Enhanced Neutral Exciton Diffusion in Monolayer WS<sub>2</sub> by Excitonâ€“Exciton Annihilation. ACS Nano, 2022, 16, 8005-8011. | 14.6 | 11 |
| 284 | Efficiency Roll-Off Free Electroluminescence from Monolayer WSe<sub>2</sub>. Nano Letters, 2022, 22, 5316-5321. | 9.1 | 11 |
| 285 | InAs FinFETs Performance Enhancement by Superacid Surface Treatment. IEEE Transactions on Electron Devices, 2019, 66, 1856-1861. | 3.0 | 10 |
| 286 | Molecular Materials with Short Radiative Lifetime for High-Speed Light-Emitting Devices. Matter, 2020, 3, 1832-1844. | 10.0 | 10 |
| 287 | Copper Tetracyanoquinodimethane (CuTCNQ): A Metalâ€“Organic Semiconductor for Room-Temperature Visible to Long-Wave Infrared Photodetection. ACS Applied Materials & Interfaces, 2021, 13, 38544-38552. | 8.0 | 10 |
| 288 | A Resonantly Driven, Electroluminescent Metal Oxide Semiconductor Capacitor with High Power Efficiency. ACS Nano, 2021, 15, 15210-15217. | 14.6 | 10 |

| # | Article | IF | Citations |
|---|---|---|---|
| 289 | 2D layered materials: From materials properties to device applications. , 2015, , . | | 9 |
| 290 | PCBM-Grafted MWNT for Enhanced Electron Transport in Polymer Solar Cells. Journal of the Electrochemical Society, 2011, 158, A237. | 2.9 | 8 |
| 291 | Carbon Nanotubes: Printed Carbon Nanotube Electronics and Sensor Systems (Adv. Mater. 22/2016). Advanced Materials, 2016, 28, 4396-4396. | 21.0 | 8 |
| 292 | Microchannel contacting of crystalline silicon solar cells. Scientific Reports, 2017, 7, 9085. | 3.3 | 8 |
| 293 | High-gain monolithic 3D CMOS inverter using layered semiconductors. Applied Physics Letters, 2017, 111, . | 3.3 | 8 |
| 294 | Shape-controlled single-crystal growth of InP at low temperatures down to 220 Â°C. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 902-906. | 7.1 | 8 |
| 295 | Wearable Biosensors for Body Computing (Adv. Funct. Mater. 39/2021). Advanced Functional Materials, 2021, 31, 2170290. | 14.9 | 8 |
| 296 | Flexible Electronics: Flexible Electrochemical Bioelectronics: The Rise of In Situ Bioanalysis (Adv.) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 46 | 21.0 | 7 |
| 297 | Orientated Growth of Ultrathin Tellurium by van der Waals Epitaxy. Advanced Materials Interfaces, 2022, 9, . | 3.7 | 7 |
| 298 | A Year for Nanoscience. ACS Nano, 2014, 8, 11901-11903. | 14.6 | 6 |
| 299 | Wearable Devices: Wearable Microfluidic Diaphragm Pressure Sensor for Health and Tactile Touch Monitoring (Adv. Mater. 39/2017). Advanced Materials, 2017, 29, . | 21.0 | 6 |
| 300 | Gate Quantum Capacitance Effects in Nanoscale Transistors. Nano Letters, 2019, 19, 7130-7137. | 9.1 | 6 |
| 301 | In Situ Transmission Electron Microscopy Study of Molybdenum Oxide Contacts for Silicon Solar Cells. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800998. | 1.8 | 6 |
| 302 | Graphitic interfacial layer to carbon nanotube for low electrical contact resistance. , 2010, , . | | 5 |
| 303 | Be Critical but Fair. ACS Nano, 2013, 7, 8313-8316. | 14.6 | 5 |
| 304 | Mimicking the Human Brain and More: New Grand Challenge Initiatives. ACS Nano, 2015, 9, 10533-10536. | 14.6 | 5 |
| 305 | Improved Hydrogen Sensitivity and Selectivity in PdO with Metal-Organic Framework Membrane. Journal of the Electrochemical Society, 2020, 167, 147503. | 2.9 | 5 |
| 306 | Monolayer doping and diameter-dependent electron mobility assessment of nanowires. , 2009, , . | | 4 |

| # | Article | IF | Citations |
|---|---|---|---|
| 307 | Resistive switching of carbon-based RRAM with CNT electrodes for ultra-dense memory. , 2010, , . | | 4 |
| 308 | Photoluminescence imaging characterization of thin-film InP. , 2015, , . | | 4 |
| 309 | Nanoscience and Nanotechnology Cross Borders. ACS Nano, 2017, 11, 1123-1126. | 14.6 | 4 |
| 310 | Power surfing on waves. Nature, 2011, 472, 304-305. | 27.8 | 3 |
| 311 | We Take It Personally. ACS Nano, 2012, 6, 10417-10419. | 14.6 | 3 |
| 312 | Grand Plans for Nano. ACS Nano, 2015, 9, 11503-11505. | 14.6 | 3 |
| 313 | Enhanced Spontaneous Emission from an Optical Antenna Coupled WSe2 Monolayer. , 2015, , . | | 3 |
| 314 | Preface to Special Topic: Selected Papers from the International Conference on Flexible and Printed Electronics, Jeju Island, Korea, 2009. Journal of Applied Physics, 2010, 108, 102701. | 2.5 | 2 |
| 315 | Measuring Academic Impact. ACS Nano, 2012, 6, 6529-6529. | 14.6 | 2 |
| 316 | Series resistance and mobility in mechanically-exfoliated layered transition metal dichalcogenide MOSFETs. , 2014, , . | | 2 |
| 317 | Two-Chip Wireless H2S Gas Sensor System Requiring Zero Additional Electronic Components. , 2019, , . | | 2 |
| 318 | Laserâ€Assisted Thermomechanical Thinning of MoTe<sub>2</sub> in Nanoscale Lateral Resolution. Advanced Materials Interfaces, 2022, 9, . | 3.7 | 2 |
| 319 | Self-aligned 40-nm channel carbon nanotube field-effect transistors with subthreshold swings down to 70 mV/decade. , 2005, , . | | 1 |
| 320 | Carbon Nanotube Field-Effect Transistors. Integrated Circuits and Systems, 2009, , 63-86. | 0.2 | 1 |
| 321 | Exciting Times for Nano. ACS Nano, 2013, 7, 10437-10439. | 14.6 | 1 |
| 322 | Catalyst-dependent morphological evolution by interfacial stress in crystallineâ€“amorphous coreâ€“shell germanium nanowires. RSC Advances, 2015, 5, 28454-28459. | 3.6 | 1 |
| 323 | A Big Year Ahead for Nano in 2018. ACS Nano, 2017, 11, 11755-11757. | 14.6 | 1 |
| 324 | 2D Semiconductor Optoelectronics. , 2017, , . | | 1 |

| # | Article | IF | Citations |
|---|---|---|---|
| 325 | 23% efficient n-type crystalline silicon solar cells with passivated partial rear contacts. , 2018, , . | | 1 |
| 326 | Growing Contributions of Nano in 2020. ACS Nano, 2020, 14, 16163-16164. | 14.6 | 1 |
| 327 | Ordered polymer-based spin-on dopants. , 2019, , . | | 1 |
| 328 | Theory of liquid-mediated strain release in two-dimensional materials. Physical Review Materials, 2022, 6, . | 2.4 | 1 |
| 329 | Structural heterogeneity in non-crystalline Te<sub>x</sub> Se1â^'x thin films. Applied Physics Letters, 2022, 121, 012101. | 3.3 | 1 |
| 330 | Nanowire-based 2-D and 3-D XoY electronics. , 2010, , . | | 0 |
| 331 | ACS Nano in 2011 and Looking Forward to 2012. ACS Nano, 2011, 5, 9301-9302. | 14.6 | 0 |
| 332 | Strongly enhanced minority lifetimes in single silicon nanowires by surface passivation. , 2011, , . | | 0 |
| 333 | Quantum membranes: A new materials platform for future electronics. , 2013, , . | | 0 |
| 334 | Carbon nanotube macroelectronics: toward system-on-plastic. Proceedings of SPIE, 2013, , . | 0.8 | 0 |
| 335 | Solar fuels production by artificial photosynthesis. , 2013, , . | | 0 |
| 336 | Frontispiece: Enhanced Photocatalytic Reduction of CO2to CO through TiO2Passivation of InP in Ionic Liquids. Chemistry - A European Journal, 2015, 21, n/a-n/a. | 3.3 | 0 |
| 337 | Low Pressure Vapor-assisted Solution Process for Tunable Band Gap Pinhole-free Methylammonium Lead Halide Perovskite Films. Journal of Visualized Experiments, 2017, , . | 0.3 | 0 |
| 338 | Our First and Next Decades at ACS Nano. ACS Nano, 2017, 11, 7553-7555. | 14.6 | 0 |
| 339 | Measuring the edge recombination velocity of monolayer semiconductors. , 2017, , . | | 0 |
| 340 | Investigation of InP defect characteristics grown using novel TF-VLS technique. , 2017, , . | | 0 |
| 341 | Metal Nanoparticle Hole Contacts for Silicon Solar Cells. , 2017, , . | | 0 |
| 342 | Helmuth MÃ¶hwald (1946â€“2018). ACS Nano, 2018, 12, 3053-3055. | 14.6 | 0 |

| # | Article | IF | Citations |
|---|---|---|---|
| 343 | Transmission Electron Microscopy Studies of Transition Metal Oxides Employed as Carrier Selective Contacts in Silicon Solar Cells. , 2018, , . | | 0 |
| 344 | Scalable Ultra Low-Power Chemical Sensing with Metal-Organic Frameworks. , 2019, , . | | 0 |
| 345 | In Situ Transmission Electron Microscopy: A Powerful Tool for the Characterization of Carrier-Selective Contacts. , 2019, , . | | 0 |
| 346 | Monolayer Semiconductors: Scanning Probe Lithography Patterning of Monolayer Semiconductors and Application in Quantifying Edge Recombination (Adv. Mater. 48/2019). Advanced Materials, 2019, 31, 1970340. | 21.0 | 0 |
| 347 | Polarization-Converting Plasmonic Nanoantennas for Light Absorption Enhancement in Anisotropic 2D Black Phosphorus. , 2021, , . | | 0 |
| 348 | Longwave Infrared Photoresponse in Copper 7,7,8,8-tetracyano-2,3,5,6-tetraflouroquinodimethane (CuTCNQF4). , 2021, , . | | 0 |
| 349 | Bright Electroluminescence from Back-Gated WSe2 P-N Junctions Using Pulsed Injection. , 2018, , . | | 0 |
| 350 | Mid-Infrared Computational Spectroscopy with an Electrically-Tunable Graphene Metasurface. , 2019, , . | | 0 |
| 351 | Long-Wave Infrared Photodetectors Based on Platinum Diselenide. , 2020, , . | | 0 |
| 352 | Visible to Long-Wave Infrared Photodetectors based on Copper Tetracyanoquinodimethane (CuTCNQ) Crystals. , 2020, , . | | 0 |
| 353 | Tanks and Truth. ACS Nano, 2022, 16, 4975-4976. | 14.6 | 0 |