

Michael B Johnston

List of Publications by Citations

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194
papers

33,019
citations

69
h-index

181
g-index

265
ext. papers

37,754
ext. citations

12.6
avg, IF

7.65
L-index

| # | Paper | IF | Citations |
|-----|---|------|-----------|
| 194 | Efficient planar heterojunction perovskite solar cells by vapour deposition. <i>Nature</i> , 2013 , 501, 395-8 | 50.4 | 6183 |
| 193 | Formamidinium lead trihalide: a broadly tunable perovskite for efficient planar heterojunction solar cells. <i>Energy and Environmental Science</i> , 2014 , 7, 982 | 35.4 | 2706 |
| 192 | High charge carrier mobilities and lifetimes in organolead trihalide perovskites. <i>Advanced Materials</i> , 2014 , 26, 1584-9 | 24 | 2282 |
| 191 | A mixed-cation lead mixed-halide perovskite absorber for tandem solar cells. <i>Science</i> , 2016 , 351, 151-5 | 33.3 | 2024 |
| 190 | Lead-free organic-inorganic tin halide perovskites for photovoltaic applications. <i>Energy and Environmental Science</i> , 2014 , 7, 3061-3068 | 35.4 | 1635 |
| 189 | Bandgap-Tunable Cesium Lead Halide Perovskites with High Thermal Stability for Efficient Solar Cells. <i>Advanced Energy Materials</i> , 2016 , 6, 1502458 | 21.8 | 992 |
| 188 | Perovskite-perovskite tandem photovoltaics with optimized band gaps. <i>Science</i> , 2016 , 354, 861-865 | 33.3 | 865 |
| 187 | The 2017 terahertz science and technology roadmap. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 043001 | | 724 |
| 186 | Electron-phonon coupling in hybrid lead halide perovskites. <i>Nature Communications</i> , 2016 , 7, | 17.4 | 668 |
| 185 | Hybrid Perovskites for Photovoltaics: Charge-Carrier Recombination, Diffusion, and Radiative Efficiencies. <i>Accounts of Chemical Research</i> , 2016 , 49, 146-54 | 24.3 | 645 |
| 184 | Temperature-Dependent Charge-Carrier Dynamics in CH ₃ NH ₃ PbI ₃ Perovskite Thin Films. <i>Advanced Functional Materials</i> , 2015 , 25, 6218-6227 | 15.6 | 645 |
| 183 | Electron mobility and injection dynamics in mesoporous ZnO, SnO ₂ and TiO ₂ films used in dye-sensitized solar cells. <i>ACS Nano</i> , 2011 , 5, 5158-66 | 16.7 | 602 |
| 182 | CsInAgCl: A New Lead-Free Halide Double Perovskite with Direct Band Gap. <i>Journal of Physical Chemistry Letters</i> , 2017 , 8, 772-778 | 6.4 | 494 |
| 181 | Enhanced UV-light stability of planar heterojunction perovskite solar cells with caesium bromide interface modification. <i>Energy and Environmental Science</i> , 2016 , 9, 490-498 | 35.4 | 450 |
| 180 | Charge-carrier dynamics in vapour-deposited films of the organolead halide perovskite CH ₃ NH ₃ PbI ₃ Cl _x . <i>Energy and Environmental Science</i> , 2014 , 7, 2269-2275 | 35.4 | 378 |
| 179 | Photovoltaic mixed-cation lead mixed-halide perovskites: links between crystallinity, photo-stability and electronic properties. <i>Energy and Environmental Science</i> , 2017 , 10, 361-369 | 35.4 | 362 |
| 178 | Charge selective contacts, mobile ions and anomalous hysteresis in organic-inorganic perovskite solar cells. <i>Materials Horizons</i> , 2015 , 2, 315-322 | 14.4 | 338 |

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| 177 | Optical properties and limiting photocurrent of thin-film perovskite solar cells. <i>Energy and Environmental Science</i> , 2015 , 8, 602-609 | 35.4 | 335 |
| 176 | Charge-Carrier Dynamics in 2D Hybrid Metal-Halide Perovskites. <i>Nano Letters</i> , 2016 , 16, 7001-7007 | 11.5 | 327 |
| 175 | Solution Deposition-Conversion for Planar Heterojunction Mixed Halide Perovskite Solar Cells. <i>Advanced Energy Materials</i> , 2014 , 4, 1400355 | 21.8 | 305 |
| 174 | Efficient perovskite solar cells by metal ion doping. <i>Energy and Environmental Science</i> , 2016 , 9, 2892-2901 | 35.4 | 301 |
| 173 | Homogeneous Emission Line Broadening in the Organo Lead Halide Perovskite CH ₃ NH ₃ PbI _{3-x} Cl _x . <i>Journal of Physical Chemistry Letters</i> , 2014 , 5, 1300-6 | 6.4 | 286 |
| 172 | Charge-Carrier Dynamics and Mobilities in Formamidinium Lead Mixed-Halide Perovskites. <i>Advanced Materials</i> , 2015 , 27, 7938-44 | 24 | 276 |
| 171 | A low viscosity, low boiling point, clean solvent system for the rapid crystallisation of highly specular perovskite films. <i>Energy and Environmental Science</i> , 2017 , 10, 145-152 | 35.4 | 253 |
| 170 | Highly efficient perovskite solar cells with tunable structural color. <i>Nano Letters</i> , 2015 , 15, 1698-702 | 11.5 | 240 |
| 169 | Simulation of terahertz generation at semiconductor surfaces. <i>Physical Review B</i> , 2002 , 65, | 3.3 | 238 |
| 168 | A piperidinium salt stabilizes efficient metal-halide perovskite solar cells. <i>Science</i> , 2020 , 369, 96-102 | 33.3 | 231 |
| 167 | Vibrational Properties of the Organic-Inorganic Halide Perovskite CH ₃ NH ₃ PbI ₃ from Theory and Experiment: Factor Group Analysis, First-Principles Calculations, and Low-Temperature Infrared Spectra. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 25703-25718 | 3.8 | 220 |
| 166 | Carrier lifetime and mobility enhancement in nearly defect-free core-shell nanowires measured using time-resolved terahertz spectroscopy. <i>Nano Letters</i> , 2009 , 9, 3349-53 | 11.5 | 216 |
| 165 | III-V semiconductor nanowires for optoelectronic device applications. <i>Progress in Quantum Electronics</i> , 2011 , 35, 23-75 | 9.1 | 215 |
| 164 | Efficient and Air-Stable Mixed-Cation Lead Mixed-Halide Perovskite Solar Cells with n-Doped Organic Electron Extraction Layers. <i>Advanced Materials</i> , 2017 , 29, 1604186 | 24 | 211 |
| 163 | Structured Organic-Inorganic Perovskite toward a Distributed Feedback Laser. <i>Advanced Materials</i> , 2016 , 28, 923-9 | 24 | 209 |
| 162 | Electronic properties of GaAs, InAs and InP nanowires studied by terahertz spectroscopy. <i>Nanotechnology</i> , 2013 , 24, 214006 | 3.4 | 205 |
| 161 | Crystallization Kinetics and Morphology Control of Formamidinium-Cesium Mixed-Cation Lead Mixed-Halide Perovskite via Tunability of the Colloidal Precursor Solution. <i>Advanced Materials</i> , 2017 , 29, 1607039 | 24 | 197 |
| 160 | Bimolecular recombination in methylammonium lead triiodide perovskite is an inverse absorption process. <i>Nature Communications</i> , 2018 , 9, 293 | 17.4 | 175 |

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| 159 | Charge carrier recombination channels in the low-temperature phase of organic-inorganic lead halide perovskite thin films. <i>APL Materials</i> , 2014 , 2, 081513 | 5.7 | 170 |
| 158 | Plasmonic-Induced Photon Recycling in Metal Halide Perovskite Solar Cells. <i>Advanced Functional Materials</i> , 2015 , 25, 5038-5046 | 15.6 | 167 |
| 157 | Ultrafast transient terahertz conductivity of monolayer MoS ₂ and WSe ₂ grown by chemical vapor deposition. <i>ACS Nano</i> , 2014 , 8, 11147-53 | 16.7 | 161 |
| 156 | Transient Terahertz Conductivity of GaAs Nanowires. <i>Nano Letters</i> , 2007 , 7, 2162-2165 | 11.5 | 156 |
| 155 | Revealing the origin of voltage loss in mixed-halide perovskite solar cells. <i>Energy and Environmental Science</i> , 2020 , 13, 258-267 | 35.4 | 155 |
| 154 | Efficient, Semitransparent Neutral-Colored Solar Cells Based on Microstructured Formamidinium Lead Trihalide Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 129-38 | 6.4 | 153 |
| 153 | High irradiance performance of metal halide perovskites for concentrator photovoltaics. <i>Nature Energy</i> , 2018 , 3, 855-861 | 62.3 | 140 |
| 152 | Electronic Traps and Phase Segregation in Lead Mixed-Halide Perovskite. <i>ACS Energy Letters</i> , 2019 , 4, 75-84 | 20.1 | 134 |
| 151 | Ultralow surface recombination velocity in InP nanowires probed by terahertz spectroscopy. <i>Nano Letters</i> , 2012 , 12, 5325-30 | 11.5 | 127 |
| 150 | Solution-Processed All-Perovskite Multi-junction Solar Cells. <i>Joule</i> , 2019 , 3, 387-401 | 27.8 | 109 |
| 149 | Photon Reabsorption Masks Intrinsic Bimolecular Charge-Carrier Recombination in CH ₃ NH ₃ PbI ₃ Perovskite. <i>Nano Letters</i> , 2017 , 17, 5782-5789 | 11.5 | 108 |
| 148 | Effect of Structural Phase Transition on Charge-Carrier Lifetimes and Defects in CH ₃ NH ₃ SnI ₃ Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 1321-6 | 6.4 | 105 |
| 147 | Unveiling the Influence of pH on the Crystallization of Hybrid Perovskites, Delivering Low Voltage Loss Photovoltaics. <i>Joule</i> , 2017 , 1, 328-343 | 27.8 | 104 |
| 146 | A review of the electrical properties of semiconductor nanowires: insights gained from terahertz conductivity spectroscopy. <i>Semiconductor Science and Technology</i> , 2016 , 31, 103003 | 1.8 | 103 |
| 145 | Terahertz emission from lateral photo-Dember currents. <i>Optics Express</i> , 2010 , 18, 4939-47 | 3.3 | 100 |
| 144 | Enhanced Amplified Spontaneous Emission in Perovskites Using a Flexible Cholesteric Liquid Crystal Reflector. <i>Nano Letters</i> , 2015 , 15, 4935-41 | 11.5 | 97 |
| 143 | Extreme sensitivity of graphene photoconductivity to environmental gases. <i>Nature Communications</i> , 2012 , 3, 1228 | 17.4 | 94 |
| 142 | The Effects of Doping Density and Temperature on the Optoelectronic Properties of Formamidinium Tin Triiodide Thin Films. <i>Advanced Materials</i> , 2018 , 30, e1804506 | 24 | 94 |

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| 141 | Band-Tail Recombination in Hybrid Lead Iodide Perovskite. <i>Advanced Functional Materials</i> , 2017 , 27, 1700860 | 9.6 | 94 |
| 140 | The development of terahertz sources and their applications. <i>Physics in Medicine and Biology</i> , 2002 , 47, 3679-89 | 3.8 | 90 |
| 139 | Efficient generation of charges via below-gap photoexcitation of polymer-fullerene blend films investigated by terahertz spectroscopy. <i>Physical Review B</i> , 2008 , 78, | 3.3 | 88 |
| 138 | Large-Area, Highly Uniform Evaporated Formamidinium Lead Triiodide Thin Films for Solar Cells. <i>ACS Energy Letters</i> , 2017 , 2, 2799-2804 | 20.1 | 86 |
| 137 | Atomic-scale microstructure of metal halide perovskite. <i>Science</i> , 2020 , 370, | 33.3 | 86 |
| 136 | Influence of surface passivation on ultrafast carrier dynamics and terahertz radiation generation in GaAs. <i>Applied Physics Letters</i> , 2006 , 89, 232102 | 3.4 | 85 |
| 135 | Role of Ultrafast Torsional Relaxation in the Emission from Polythiophene Aggregates. <i>Journal of Physical Chemistry Letters</i> , 2010 , 1, 2788-2792 | 6.4 | 84 |
| 134 | Formation Dynamics of CH ₃ NH ₃ PbI ₃ Perovskite Following Two-Step Layer Deposition. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 96-102 | 6.4 | 82 |
| 133 | Polarization-sensitive terahertz detection by multicontact photoconductive receivers. <i>Applied Physics Letters</i> , 2005 , 86, 254102 | 3.4 | 82 |
| 132 | Enhanced coherent terahertz emission from indium arsenide in the presence of a magnetic field. <i>Applied Physics Letters</i> , 2000 , 76, 2038-2040 | 3.4 | 79 |
| 131 | Single nanowire photoconductive terahertz detectors. <i>Nano Letters</i> , 2015 , 15, 206-10 | 11.5 | 78 |
| 130 | Low-energy vibrational modes in phenylene oligomers studied by THz time-domain spectroscopy. <i>Chemical Physics Letters</i> , 2003 , 377, 256-262 | 2.5 | 78 |
| 129 | Radiative Monomolecular Recombination Boosts Amplified Spontaneous Emission in HC(NH)SnI Perovskite Films. <i>Journal of Physical Chemistry Letters</i> , 2016 , 7, 4178-4184 | 6.4 | 78 |
| 128 | Elucidating the long-range charge carrier mobility in metal halide perovskite thin films. <i>Energy and Environmental Science</i> , 2019 , 12, 169-176 | 35.4 | 76 |
| 127 | Ultrafast charge separation at a polymer-single-walled carbon nanotube molecular junction. <i>Nano Letters</i> , 2011 , 11, 66-72 | 11.5 | 76 |
| 126 | Ultrafast Terahertz Conductivity Dynamics in Mesoporous TiO ₂ : Influence of Dye Sensitization and Surface Treatment in Solid-State Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2010 , 114, 1365-1371 | 3.8 | 73 |
| 125 | Modulation doping of GaAs/AlGaAs core-shell nanowires with effective defect passivation and high electron mobility. <i>Nano Letters</i> , 2015 , 15, 1336-42 | 11.5 | 69 |
| 124 | Three-dimensional carrier-dynamics simulation of terahertz emission from photoconductive switches. <i>Physical Review B</i> , 2005 , 71, | 3.3 | 69 |

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| 123 | Electron mobilities approaching bulk limits in "surface-free" GaAs nanowires. <i>Nano Letters</i> , 2014 , 14, 5989-94 | 11.5 | 64 |
| 122 | Terahertz Properties of Graphene. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2012 , 33, 797-815.2 | 5.2 | 59 |
| 121 | The origin of an efficiency improving light soaking effect in SnO ₂ based solid-state dye-sensitized solar cells. <i>Energy and Environmental Science</i> , 2012 , 5, 9566 | 35.4 | 56 |
| 120 | Conformational changes of photoactive yellow protein monitored by terahertz spectroscopy. <i>Chemical Physics Letters</i> , 2008 , 455, 289-292 | 2.5 | 55 |
| 119 | Crystallization of CsPbBr single crystals in water for X-ray detection. <i>Nature Communications</i> , 2021 , 12, 1531 | 17.4 | 55 |
| 118 | Hybrid Perovskites: Prospects for Concentrator Solar Cells. <i>Advanced Science</i> , 2018 , 5, 1700792 | 13.6 | 54 |
| 117 | Influence of Interface Morphology on Hysteresis in Vapor-Deposited Perovskite Solar Cells. <i>Advanced Electronic Materials</i> , 2017 , 3, 1600470 | 6.4 | 53 |
| 116 | Raman Spectrum of the Organic-Inorganic Halide Perovskite CH ₃ NH ₃ PbI ₃ from First Principles and High-Resolution Low-Temperature Raman Measurements. <i>Journal of Physical Chemistry C</i> , 2018 , 122, 21703-21717 | 3.8 | 53 |
| 115 | Strong carrier lifetime enhancement in GaAs nanowires coated with semiconducting polymer. <i>Nano Letters</i> , 2012 , 12, 6293-301 | 11.5 | 52 |
| 114 | An Ultrafast Switchable Terahertz Polarization Modulator Based on III-V Semiconductor Nanowires. <i>Nano Letters</i> , 2017 , 17, 2603-2610 | 11.5 | 51 |
| 113 | Optical Description of Mesostructured Organic-Inorganic Halide Perovskite Solar Cells. <i>Journal of Physical Chemistry Letters</i> , 2015 , 6, 48-53 | 6.4 | 51 |
| 112 | Increased Photoconductivity Lifetime in GaAs Nanowires by Controlled n-Type and p-Type Doping. <i>ACS Nano</i> , 2016 , 10, 4219-27 | 16.7 | 51 |
| 111 | Noncontact measurement of charge carrier lifetime and mobility in GaN nanowires. <i>Nano Letters</i> , 2012 , 12, 4600-4 | 11.5 | 51 |
| 110 | Heterogeneous Photon Recycling and Charge Diffusion Enhance Charge Transport in Quasi-2D Lead-Halide Perovskite Films. <i>Nano Letters</i> , 2019 , 19, 3953-3960 | 11.5 | 50 |
| 109 | Metal composition influences optoelectronic quality in mixed-metal lead-in triiodide perovskite solar absorbers. <i>Energy and Environmental Science</i> , 2020 , 13, 1776-1787 | 35.4 | 50 |
| 108 | Elucidating the Role of a Tetrafluoroborate-Based Ionic Liquid at the n-Type Oxide/Perovskite Interface. <i>Advanced Energy Materials</i> , 2020 , 10, 1903231 | 21.8 | 50 |
| 107 | Selective dielectrophoretic manipulation of surface-immobilized DNA molecules. <i>Nanotechnology</i> , 2003 , 14, 896-902 | 3.4 | 47 |
| 106 | Carrier dynamics in ion-implanted GaAs studied by simulation and observation of terahertz emission. <i>Physical Review B</i> , 2004 , 70, | 3.3 | 46 |

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| 105 | Halide Segregation in Mixed-Halide Perovskites: Influence of A-Site Cations. <i>ACS Energy Letters</i> , 2021 , 6, 799-808 | 20.1 | 46 |
| 104 | Interplay of Structural and Optoelectronic Properties in Formamidinium Mixed Tin/Lead Triiodide Perovskites. <i>Advanced Functional Materials</i> , 2018 , 28, 1802803 | 15.6 | 45 |
| 103 | Highly Crystalline Methylammonium Lead Tribromide Perovskite Films for Efficient Photovoltaic Devices. <i>ACS Energy Letters</i> , 2018 , 3, 1233-1240 | 20.1 | 43 |
| 102 | Near-Infrared and Short-Wavelength Infrared Photodiodes Based on Dye/Perovskite Composites. <i>Advanced Functional Materials</i> , 2017 , 27, 1702485 | 15.6 | 43 |
| 101 | Fast Charge-Carrier Trapping in TiO ₂ Nanotubes. <i>Journal of Physical Chemistry C</i> , 2015 , 119, 9159-9168 | 3.8 | 42 |
| 100 | Theory of magnetic-field enhancement of surface-field terahertz emission. <i>Journal of Applied Physics</i> , 2002 , 91, 2104-2106 | 2.5 | 42 |
| 99 | Control over Crystal Size in Vapor Deposited Metal-Halide Perovskite Films. <i>ACS Energy Letters</i> , 2020 , 5, 710-717 | 20.1 | 42 |
| 98 | Excitation-density-dependent generation of broadband terahertz radiation in an asymmetrically excited photoconductive antenna. <i>Optics Letters</i> , 2007 , 32, 2297-9 | 3 | 41 |
| 97 | Photoconductive response correction for detectors of terahertz radiation. <i>Journal of Applied Physics</i> , 2008 , 104, 053113 | 2.5 | 40 |
| 96 | Generation of high-power terahertz pulses in a prism. <i>Optics Letters</i> , 2002 , 27, 1935-7 | 3 | 40 |
| 95 | Trap States, Electric Fields, and Phase Segregation in Mixed-Halide Perovskite Photovoltaic Devices. <i>Advanced Energy Materials</i> , 2020 , 10, 1903488 | 21.8 | 39 |
| 94 | All-optical full-color displays using polymer nanofibers. <i>ACS Nano</i> , 2011 , 5, 2020-5 | 16.7 | 38 |
| 93 | An ion-implanted InP receiver for polarization resolved terahertz spectroscopy. <i>Optics Express</i> , 2007 , 15, 7047-57 | 3.3 | 38 |
| 92 | Dual-Source Coevaporation of Low-Bandgap FA _{1-x} CsxSn _{1-y} PbyI ₃ Perovskites for Photovoltaics. <i>ACS Energy Letters</i> , 2019 , 4, 2748-2756 | 20.1 | 37 |
| 91 | Temperature-Dependent Refractive Index of Quartz at Terahertz Frequencies. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2018 , 39, 1236-1248 | 2.2 | 37 |
| 90 | Three-dimensional cross-nanowire networks recover full terahertz state. <i>Science</i> , 2020 , 368, 510-513 | 33.3 | 36 |
| 89 | Impact of the Organic Cation on the Optoelectronic Properties of Formamidinium Lead Triiodide. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 4502-4511 | 6.4 | 34 |
| 88 | Terahertz Excitonic Response of Isolated Single-Walled Carbon Nanotubes. <i>Journal of Physical Chemistry C</i> , 2009 , 113, 18106-18109 | 3.8 | 34 |

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|----|--|------|----|
| 87 | Nanoengineering coaxial carbon nanotube-dual-polymer heterostructures. <i>ACS Nano</i> , 2012 , 6, 6058-66 | 16.7 | 32 |
| 86 | Simulation and optimisation of terahertz emission from InGaAs and InP photoconductive switches. <i>Solid State Communications</i> , 2005 , 136, 595-600 | 1.6 | 31 |
| 85 | In(x)Ga(1-x)As nanowires with uniform composition, pure wurtzite crystal phase and taper-free morphology. <i>Nanotechnology</i> , 2015 , 26, 205604 | 3.4 | 29 |
| 84 | Growth modes and quantum confinement in ultrathin vapour-deposited MAPbI films. <i>Nanoscale</i> , 2019 , 11, 14276-14284 | 7.7 | 29 |
| 83 | Impurity Tracking Enables Enhanced Control and Reproducibility of Hybrid Perovskite Vapor Deposition. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 28851-28857 | 9.5 | 28 |
| 82 | Longitudinal electron bunch profile diagnostics at 45 MeV using coherent Smith-Purcell radiation. <i>Physical Review Special Topics: Accelerators and Beams</i> , 2006 , 9, | | 28 |
| 81 | Broadband Phase-Sensitive Single InP Nanowire Photoconductive Terahertz Detectors. <i>Nano Letters</i> , 2016 , 16, 4925-31 | 11.5 | 27 |
| 80 | Dependence of Dye Regeneration and Charge Collection on the Pore-Filling Fraction in Solid-State Dye-Sensitized Solar Cells. <i>Advanced Functional Materials</i> , 2014 , 24, 668-677 | 15.6 | 27 |
| 79 | Extraction of the anisotropic dielectric properties of materials from polarization-resolved terahertz time-domain spectra. <i>Journal of Optics</i> , 2009 , 11, 105206 | | 27 |
| 78 | Charge-Carrier Trapping and Radiative Recombination in Metal Halide Perovskite Semiconductors. <i>Advanced Functional Materials</i> , 2020 , 30, 2004312 | 15.6 | 27 |
| 77 | Charge-Carrier Trapping Dynamics in Bismuth-Doped Thin Films of MAPbBr Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2020 , 11, 3681-3688 | 6.4 | 27 |
| 76 | Impact of Tin Fluoride Additive on the Properties of Mixed Tin-Lead Iodide Perovskite Semiconductors. <i>Advanced Functional Materials</i> , 2020 , 30, 2005594 | 15.6 | 26 |
| 75 | An ultrafast carbon nanotube terahertz polarisation modulator. <i>Journal of Applied Physics</i> , 2014 , 115, 203108 | 2.5 | 25 |
| 74 | Proton irradiation-induced intermixing in InGaAs/(Al)GaAs quantum wells and quantum-well lasers. <i>Journal of Applied Physics</i> , 1999 , 85, 6786-6789 | 2.5 | 25 |
| 73 | Ultrafast Excited-State Localization in CsAgBiBr Double Perovskite. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 3352-3360 | 6.4 | 25 |
| 72 | Nanotechnology for catalysis and solar energy conversion. <i>Nanotechnology</i> , 2021 , 32, 042003 | 3.4 | 24 |
| 71 | Improved Performance of GaAs-Based Terahertz Emitters via Surface Passivation and Silicon Nitride Encapsulation. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2011 , 17, 17-21 | 3.8 | 23 |
| 70 | Improved carrier collection in intermixed InGaAs/GaAs quantum wells. <i>Applied Physics Letters</i> , 1998 , 73, 3408-3410 | 3.4 | 23 |

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|----|---|------|----|
| 69 | Charge-Carrier Dynamics, Mobilities, and Diffusion Lengths of 2D/3D Hybrid Butylammonium Cesium Formamidinium Lead Halide Perovskites. <i>Advanced Functional Materials</i> , 2019 , 29, 1902656 | 15.6 | 22 |
| 68 | High Electron Mobility and Insights into Temperature-Dependent Scattering Mechanisms in InAsSb Nanowires. <i>Nano Letters</i> , 2018 , 18, 3703-3710 | 11.5 | 22 |
| 67 | Direct observation of charge-carrier heating at WZ-ZB InP nanowire heterojunctions. <i>Nano Letters</i> , 2013 , 13, 4280-7 | 11.5 | 22 |
| 66 | Dynamic terahertz polarization in single-walled carbon nanotubes. <i>Physical Review B</i> , 2010 , 82, | 3.3 | 21 |
| 65 | Carrier capture and relaxation in Stranski-Krastanow In _x Ga _{1-x} As/GaAs(311)B quantum dots. <i>Physical Review B</i> , 2000 , 62, 2737-2742 | 3.3 | 20 |
| 64 | Effect of Ultraviolet Radiation on Organic Photovoltaic Materials and Devices. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 21543-21551 | 9.5 | 19 |
| 63 | Optimizing the Energy Offset between Dye and Hole-Transporting Material in Solid-State Dye-Sensitized Solar Cells. <i>Journal of Physical Chemistry C</i> , 2013 , 117, 19850-19858 | 3.8 | 18 |
| 62 | The influence of surfaces on the transient terahertz conductivity and electron mobility of GaAs nanowires. <i>Journal Physics D: Applied Physics</i> , 2017 , 50, 224001 | 3 | 17 |
| 61 | CsPbBr ₃ Nanocrystal Films: Deviations from Bulk Vibrational and Optoelectronic Properties. <i>Advanced Functional Materials</i> , 2020 , 30, 1909904 | 15.6 | 17 |
| 60 | Photocurrent Spectroscopy of Perovskite Solar Cells Over a Wide Temperature Range from 15 to 350 K. <i>Journal of Physical Chemistry Letters</i> , 2018 , 9, 263-268 | 6.4 | 17 |
| 59 | Emission of collimated THz pulses from photo-excited semiconductors. <i>Semiconductor Science and Technology</i> , 2004 , 19, S449-S451 | 1.8 | 17 |
| 58 | Interdiffused quantum-well infrared photodetectors for color sensitive arrays. <i>Applied Physics Letters</i> , 1999 , 75, 923-925 | 3.4 | 17 |
| 57 | Light Absorption and Recycling in Hybrid Metal Halide Perovskite Photovoltaic Devices. <i>Advanced Energy Materials</i> , 2020 , 10, 1903653 | 21.8 | 17 |
| 56 | Effects of anodic oxide induced intermixing on the structural and optical properties of quantum wire structure grown on nonplanar GaAs substrate. <i>Journal of Applied Physics</i> , 1996 , 80, 5014-5020 | 2.5 | 16 |
| 55 | Phase segregation in mixed-halide perovskites affects charge-carrier dynamics while preserving mobility. <i>Nature Communications</i> , 2021 , 12, 6955 | 17.4 | 16 |
| 54 | Ultrafast dynamics of exciton formation in semiconductor nanowires. <i>Small</i> , 2012 , 8, 1725-31 | 11 | 15 |
| 53 | Terahertz photoconductivity of mobile electrons in nanoporous InP honeycombs. <i>Physical Review B</i> , 2008 , 78, | 3.3 | 15 |
| 52 | Terahertz magnetoconductivity of excitons and electrons in quantum cascade structures. <i>Physical Review B</i> , 2008 , 77, | 3.3 | 15 |

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|----|---|------|----|
| 51 | Understanding and suppressing non-radiative losses in methylammonium-free wide-bandgap perovskite solar cells. <i>Energy and Environmental Science</i> , | 35.4 | 15 |
| 50 | Single n-i-n InP nanowires for highly sensitive terahertz detection. <i>Nanotechnology</i> , 2017 , 28, 125202 | 3.4 | 14 |
| 49 | Static Electrification by Nonwetting Liquids. Contact Charging and Contact Angles. <i>Langmuir</i> , 1995 , 11, 4153-4158 | 4 | 14 |
| 48 | Charge-Carrier Mobility and Localization in Semiconducting CuAgBiI for Photovoltaic Applications. <i>ACS Energy Letters</i> , 2021 , 6, 1729-1739 | 20.1 | 14 |
| 47 | Limits to Electrical Mobility in Lead-Halide Perovskite Semiconductors. <i>Journal of Physical Chemistry Letters</i> , 2021 , 12, 3607-3617 | 6.4 | 14 |
| 46 | Conductivity of nanoporous InP membranes investigated using terahertz spectroscopy. <i>Nanotechnology</i> , 2008 , 19, 395704 | 3.4 | 13 |
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