# Blake B Simpkins

List of Publications by Year
in descending order



| 54 | 1,932 | 304743 | 254184 |
|---|---|---|---|
| papers | citations | 22 h-index | 43 g-index |

| 56 | 56 | 56 | 1996 |
|---|---|---|---|
| all docs | docs citations | times ranked | citing authors |

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Correlated scanning Kelvin probe and conductive atomic force microscopy studies of dislocations in gallium nitride. Journal of Applied Physics, 2003, 94, 1448-1453. | 2.5 | 190 |
| 2 | Coherent Coupling between a Molecular Vibration and Fabryâ€“Perot Optical Cavity to Give Hybridized States in the Strong Coupling Limit. ACS Photonics, 2015, 2, 130-136. | 6.6 | 189 |
| 3 | Modified relaxation dynamics and coherent energy exchange in coupled vibration-cavity polaritons. Nature Communications, 2016, 7, 13504. | 12.8 | 146 |
| 4 | Two-dimensional infrared spectroscopy of vibrational polaritons. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4845-4850. | 7.1 | 143 |
| 5 | Spanning Strong to Weak Normal Mode Coupling between Vibrational and Fabryâ€“PÃ©rot Cavity Modes through Tuning of Vibrational Absorption Strength. ACS Photonics, 2015, 2, 1460-1467. | 6.6 | 118 |
| 6 | Far-field Imaging of Optical Second-Harmonic Generation in Single GaN Nanowires. Nano Letters, 2007, 7, 831-836. | 9.1 | 97 |
| 7 | Surface depletion effects in semiconducting nanowires. Journal of Applied Physics, 2008, 103, . | 2.5 | 92 |
| 8 | Theory for Nonlinear Spectroscopy of Vibrational Polaritons. Journal of Physical Chemistry Letters, 2018, 9, 3766-3771. | 4.6 | 72 |
| 9 | Negligible Effect of Vibrational Polaritons on Chemical Reaction Rates via the Density of States Pathway. Journal of Physical Chemistry Letters, 2020, 11, 3557-3562. | 4.6 | 63 |
| 10 | Vibration-Cavity Polariton Chemistry and Dynamics. Annual Review of Physical Chemistry, 2022, 73, 429-451. | 10.8 | 58 |
| 11 | Manipulating optical nonlinearities of molecular polaritons by delocalization. Science Advances, 2019, 5, eaax5196. | 10.3 | 57 |
| 12 | Ultrafast Transmission Modulation and Recovery via Vibrational Strong Coupling. Journal of Physical Chemistry A, 2018, 122, 965-971. | 2.5 | 55 |
| 13 | Excited-state vibration-polariton transitions and dynamics in nitroprusside. Nature Communications, 2021, 12, 214. | 12.8 | 51 |
| 14 | Mode-Specific Chemistry through Vibrational Strong Coupling (or A Wish Come True). Journal of Physical Chemistry C, 2021, 125, 19081-19087. | 3.1 | 48 |
| 15 | Vibrational Strong Coupling Controlled by Spatial Distribution of Molecules within the Optical Cavity. ACS Photonics, 2018, 5, 158-166. | 6.6 | 44 |
| 16 | Scanning Kelvin probe microscopy of surface electronic structure in GaN grown by hydride vapor phase epitaxy. Journal of Applied Physics, 2002, 91, 9924. | 2.5 | 43 |
| 17 | Fabrication and characterization of DNA-functionalized GaN nanowires. Nanotechnology, 2007, 18, 355301. | 2.6 | 34 |
| 18 | Pitch-dependent resonances and near-field coupling in infrared nanoantenna arrays. Optics Express, 2012, 20, 27725. | 3.4 | 34 |

| # | Article | IF | Citations |
|---|---|---|---|
| 19 | Space-charge-limited currents and trap characterization in coaxial AlGaN/GaN nanowires. Journal of Applied Physics, 2011, 110, . | 2.5 | 31 |
| 20 | Surface plasmon polariton-induced hot carrier generation for photocatalysis. Nanoscale, 2017, 9, 3010-3022. | 5.6 | 28 |
| 21 | Polarization fields in III-nitride nanowire devices. Nanotechnology, 2010, 21, 145205. | 2.6 | 27 |
| 22 | Saturable Absorption in Solution-Phase and Cavity-Coupled Tungsten Hexacarbonyl. ACS Photonics, 2019, 6, 2719-2725. | 6.6 | 24 |
| 23 | Nanopatterning of GeTe phase change films via heated-probe lithography. Nanoscale, 2017, 9, 8815-8824. | 5.6 | 23 |
| 24 | Enabling remote quantum emission in 2D semiconductors via porous metallic networks. Nature Communications, 2020, 11, 5. | 12.8 | 20 |
| 25 | Local conductivity and surface photovoltage variations due to magnesium segregation inp-type GaN. Journal of Applied Physics, 2004, 95, 6225-6231. | 2.5 | 19 |
| 26 | Comparing Photoelectrochemical Methanol Oxidation Mechanisms for Gold versus Titanium Nitride Nanoparticles Dispersed in TiO2ÂMatrix. Journal of the Electrochemical Society, 2019, 166, H485-H493. | 2.9 | 16 |
| 27 | Electrochemical Modulation of Strong Vibrationâ€“Cavity Coupling. ACS Photonics, 2020, 7, 165-173. | 6.6 | 16 |
| 28 | Energy-tunable photocatalysis by hot carriers generated by surface plasmon polaritons. Journal of Materials Chemistry A, 2019, 7, 7015-7024. | 10.3 | 15 |
| 29 | Transmission efficiency of surface plasmon polaritons across gaps in gold waveguides. Applied Physics Letters, 2010, 96, 111101. | 3.3 | 14 |
| 30 | Surface-Induced Transients in Gallium Nitride Nanowires. Journal of Physical Chemistry C, 2009, 113, 9480-9485. | 3.1 | 13 |
| 31 | Magnetic moment degradation of nanowires in biological media: real-time monitoring with SQUID magnetometry. Nanotechnology, 2010, 21, 285101. | 2.6 | 13 |
| 32 | Comparative analysis of polaritons in bulk, dielectric slabs, and planar cavities with implications for cavity-modified reactivity. Journal of Chemical Physics, 2022, 156, 034110. | 3.0 | 13 |
| 33 | Induced Epitaxy for Growth of Aligned Indium Nitride Nano- and Microrods. Crystal Growth and Design, 2010, 10, 3887-3891. | 3.0 | 12 |
| 34 | Propagation length of surface plasmon polaritons determined by emission from introduced surface discontinuities. Journal of Applied Physics, 2010, 107, . | 2.5 | 10 |
| 35 | Optical Dark-Field and Electron Energy Loss Imaging and Spectroscopy of Symmetry-Forbidden Modes in Loaded Nanogap Antennas. ACS Nano, 2015, 9, 6222-6232. | 14.6 | 10 |
| 36 | Raman Scattering under Strong Vibration-Cavity Coupling. Journal of Physical Chemistry C, 2021, 125, 830-835. | 3.1 | 10 |

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|---|---|---|---|
| 37 | Polarization and Space-Charge-Limited Current in III-Nitride Heterostructure Nanowires. IEEE Transactions on Electron Devices, 2011, 58, 3401-3406. | 3.0 | 9 |
| 38 | 3-D near-field imaging of guided modes in nanophotonic waveguides. Nanophotonics, 2017, 6, 1141-1149. | 6.0 | 9 |
| 39 | Dry graphene transfer print to polystyrene and ultra-high molecular weight polyethylene â^' Detailed chemical, structural, morphological and electrical characterization. Carbon, 2015, 86, 288-300. | 10.3 | 7 |
| 40 | Photoelectrochemical Oxidation Enhanced by Nitride Plasmonics. Journal of Physical Chemistry C, 2019, 123, 13863-13868. | 3.1 | 7 |
| 41 | Photoelectrochemical Methanol Oxidation Under Visible and UV Excitation of TiO<sub>2</sub>-Supported TiN and ZrN Plasmonic Nanoparticles. Journal of the Electrochemical Society, 2021, 168, 016503. | 2.9 | 7 |
| 42 | Optical interference effect corrections for absorbance spectra of layer-by-layer thin films bearing covalently bound dye. Chemical Physics Letters, 2014, 608, 328-333. | 2.6 | 6 |
| 43 | Controlling the Crystallinity of Electrochemically Deposited CdS Nanowires. Journal of Physical Chemistry C, 2013, 117, 11843-11849. | 3.1 | 5 |
| 44 | Transverse-microcavity modulation of photoluminescence from GaN nanowires. Applied Physics Letters, 2010, 97, . | 3.3 | 3 |
| 45 | Resonance spectra of diabolo optical antenna arrays. AIP Advances, 2015, 5, 107149. | 1.3 | 3 |
| 46 | Hyperuniform disordered metal-insulator-metal gap plasmon metasurface near perfect light absorber. Optical Materials Express, 2021, 11, 4083. | 3.0 | 3 |
| 47 | Potential of TiN/GaN Heterostructures for Hot Carrier Generation and Collection. Nanomaterials, 2022, 12, 837. | 4.1 | 3 |
| 48 | Electrochemical Deposition and Spectroelectrochemical Response of Bromophenol Blue Films on Gold. Electroanalysis, 2015, 27, 1960-1967. | 2.9 | 2 |
| 49 | Photoelectrochemical Methanol Oxidation by TiN Nanoparticles Supported on TiO2. ECS Transactions, 2018, 85, 1171-1177. | 0.5 | 2 |
| 50 | Spectroelectrochemical measurement and modulation of exciton-polaritons. APL Photonics, 2020, 5, 076107. | 5.7 | 2 |
| 51 | Vibrational relaxation of small anions in a polymer film. Chemical Physics, 2018, 512, 75-81. | 1.9 | 1 |
| 52 | Synthesis, plasmonic properties, and CWA simulant decontamination activity of first row early transition metal nitride powders and nanomaterials. SN Applied Sciences, 2020, 2, 1. | 2.9 | 1 |
| 53 | Electron-Energy Loss and Optical Spectroscopy of Hybrid Nanogap-Antennas on Different Substrates. Microscopy and Microanalysis, 2014, 20, 602-603. | 0.4 | 0 |
| 54 | Examining Vibration-Cavity Polariton Dynamics via Ultrafast Infrared Spectroscopy. , 2019, , . | | 0 |