

Abul K Azad

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78
papers

7,293
citations

37
h-index

85
g-index

99
ext. papers

8,672
ext. citations

6
avg, IF

5.61
L-index

| # | Paper | IF | Citations |
|----|---|------|-----------|
| 78 | Terahertz metamaterials for linear polarization conversion and anomalous refraction. <i>Science</i> , 2013 , 340, 1304-7 | 33.3 | 1229 |
| 77 | Active control of electromagnetically induced transparency analogue in terahertz metamaterials. <i>Nature Communications</i> , 2012 , 3, 1151 | 17.4 | 783 |
| 76 | A metamaterial solid-state terahertz phase modulator. <i>Nature Photonics</i> , 2009 , 3, 148-151 | 33.9 | 679 |
| 75 | Experimental demonstration of frequency-agile terahertz metamaterials. <i>Nature Photonics</i> , 2008 , 2, 295-298 | 33.9 | 620 |
| 74 | Photoinduced handedness switching in terahertz chiral metamolecules. <i>Nature Communications</i> , 2012 , 3, 942 | 17.4 | 333 |
| 73 | Antireflection coating using metamaterials and identification of its mechanism. <i>Physical Review Letters</i> , 2010 , 105, 073901 | 7.4 | 249 |
| 72 | A discussion on the interpretation and characterization of metafilms/metasurfaces: The two-dimensional equivalent of metamaterials. <i>Metamaterials</i> , 2009 , 3, 100-112 | | 221 |
| 71 | Tuning the resonance in high-temperature superconducting terahertz metamaterials. <i>Physical Review Letters</i> , 2010 , 105, 247402 | 7.4 | 188 |
| 70 | Terahertz chiral metamaterials with giant and dynamically tunable optical activity. <i>Physical Review B</i> , 2012 , 86, | 3.3 | 178 |
| 69 | A graphene based tunable terahertz sensor with double Fano resonances. <i>Nanoscale</i> , 2015 , 7, 12682-8 | 7.7 | 154 |
| 68 | Metasurface Broadband Solar Absorber. <i>Scientific Reports</i> , 2016 , 6, 20347 | 4.9 | 148 |
| 67 | Impact of resonator geometry and its coupling with ground plane on ultrathin metamaterial perfect absorbers. <i>Applied Physics Letters</i> , 2012 , 101, 101102 | 3.4 | 140 |
| 66 | Hybrid graphene metasurfaces for high-speed mid-infrared light modulation and single-pixel imaging. <i>Light: Science and Applications</i> , 2018 , 7, 51 | 16.7 | 137 |
| 65 | Thermal tunability in terahertz metamaterials fabricated on strontium titanate single-crystal substrates. <i>Optics Letters</i> , 2011 , 36, 1230-2 | 3 | 124 |
| 64 | Transmission properties of terahertz pulses through subwavelength double split-ring resonators. <i>Optics Letters</i> , 2006 , 31, 634-6 | 3 | 120 |
| 63 | Independently tunable dual-band perfect absorber based on graphene at mid-infrared frequencies. <i>Scientific Reports</i> , 2015 , 5, 18463 | 4.9 | 108 |
| 62 | Electronic control of extraordinary terahertz transmission through subwavelength metal hole arrays. <i>Optics Express</i> , 2008 , 16, 7641-8 | 3.3 | 97 |

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| 61 | Resonant terahertz transmission in subwavelength metallic hole arrays of sub-skin-depth thickness. <i>Optics Letters</i> , 2005 , 30, 2945-7 | 3 | 84 |
| 60 | Characterization and analysis of terahertz metamaterials based on rectangular split-ring resonators. <i>Applied Physics Letters</i> , 2008 , 92, 011119 | 3-4 | 82 |
| 59 | Ultrafast manipulation of near field coupling between bright and dark modes in terahertz metamaterial. <i>Applied Physics Letters</i> , 2013 , 102, 011122 | 3-4 | 79 |
| 58 | Conducting Interface in Oxide Homojunction: Understanding of Superior Properties in Black TiO ₂ . <i>Nano Letters</i> , 2016 , 16, 5751-5 | 11.5 | 77 |
| 57 | Effect of metal permittivity on resonant properties of terahertz metamaterials. <i>Optics Letters</i> , 2008 , 33, 1506-8 | 3 | 74 |
| 56 | Metamaterials for THz polarimetric devices. <i>Optics Express</i> , 2009 , 17, 773-83 | 3-3 | 73 |
| 55 | Direct observation of a transition of a surface plasmon resonance from a photonic crystal effect. <i>Physical Review Letters</i> , 2007 , 98, 183901 | 7-4 | 71 |
| 54 | Transmission properties of terahertz pulses through an ultrathin subwavelength silicon hole array. <i>Applied Physics Letters</i> , 2005 , 86, 141102 | 3-4 | 71 |
| 53 | High-Temperature Refractory Metasurfaces for Solar Thermophotovoltaic Energy Harvesting. <i>Nano Letters</i> , 2018 , 18, 7665-7673 | 11.5 | 69 |
| 52 | Dynamically reconfigurable terahertz metamaterial through photo-doped semiconductor. <i>Applied Physics Letters</i> , 2011 , 99, 231101 | 3-4 | 68 |
| 51 | Effect of dielectric properties of metals on terahertz transmission subwavelength hole arrays. <i>Optics Letters</i> , 2006 , 31, 2637-9 | 3 | 68 |
| 50 | Terahertz studies of carrier dynamics and dielectric response of n-type, freestanding epitaxial GaN. <i>Applied Physics Letters</i> , 2003 , 82, 2841-2843 | 3-4 | 68 |
| 49 | Optical tuning and ultrafast dynamics of high-temperature superconducting terahertz metamaterials. <i>Nanophotonics</i> , 2012 , 1, 117-123 | 6.3 | 63 |
| 48 | Frequency-agile electromagnetically induced transparency analogue in terahertz metamaterials. <i>Optics Letters</i> , 2016 , 41, 4562-4565 | 3 | 58 |
| 47 | Coupling between surface plasmons and nonresonant transmission in subwavelength holes at terahertz frequencies. <i>Applied Physics Letters</i> , 2007 , 91, 071122 | 3-4 | 50 |
| 46 | Passive Radiative Thermostat Enabled by Phase-Change Photonic Nanostructures. <i>ACS Photonics</i> , 2018 , 5, 4554-4560 | 6.3 | 47 |
| 45 | Ultrafast optical control of terahertz surface plasmons in subwavelength hole arrays at room temperature. <i>Applied Physics Letters</i> , 2009 , 95, 011105 | 3-4 | 45 |
| 44 | Terahertz dielectric properties of high-resistivity single-crystal ZnO. <i>Applied Physics Letters</i> , 2006 , 88, 021103 | 3-4 | 45 |

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| 43 | A broadband planar terahertz metamaterial with nested structure. <i>Optics Express</i> , 2011 , 19, 15817-23 | 3.3 | 44 |
| 42 | Surface-wave-assisted nonreciprocity in spatio-temporally modulated metasurfaces. <i>Nature Communications</i> , 2020 , 11, 1469 | 17.4 | 38 |
| 41 | Ultra-thin metasurface microwave flat lens for broadband applications. <i>Applied Physics Letters</i> , 2017 , 110, 224101 | 3.4 | 37 |
| 40 | An active hybrid plasmonic metamaterial. <i>Optical Materials Express</i> , 2012 , 2, 31 | 2.6 | 37 |
| 39 | Far-infrared characteristics of ZnS nanoparticles measured by terahertz time-domain spectroscopy. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 1989-93 | 3.4 | 37 |
| 38 | Effects of Microstructure Variations on Macroscopic Terahertz Metafilm Properties. <i>Active and Passive Electronic Components</i> , 2007 , 2007, 1-10 | 0.3 | 33 |
| 37 | Carrier dynamics in InGaAs with embedded ErAs nanoislands. <i>Applied Physics Letters</i> , 2008 , 93, 121108 | 3.4 | 29 |
| 36 | Hybrid metasurface for ultra-broadband terahertz modulation. <i>Applied Physics Letters</i> , 2014 , 105, 181108 | 3.4 | 28 |
| 35 | Near Field Coupling in Passive and Active Terahertz Metamaterial Devices. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2013 , 3, 783-790 | 3.4 | 26 |
| 34 | Bilayer Metasurfaces for Dual- and Broadband Optical Antireflection. <i>ACS Photonics</i> , 2017 , 4, 2111-2116 | 6.3 | 26 |
| 33 | Excitation of dark plasmonic modes in symmetry broken terahertz metamaterials. <i>Optics Express</i> , 2014 , 22, 19401-10 | 3.3 | 26 |
| 32 | A review of terahertz plasmonics in subwavelength holes on conducting films. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2013 , 19, 8400416-8400416 | 3.8 | 24 |
| 31 | Terahertz Dielectric Properties and Low-Frequency Phonon Resonances of ZnO Nanostructures. <i>Journal of Physical Chemistry C</i> , 2007 , 111, 13000-13006 | 3.8 | 23 |
| 30 | Coherent pulse interrogation system for fiber Bragg grating sensing of strain and pressure in dynamic extremes of materials. <i>Optics Express</i> , 2015 , 23, 14219-33 | 3.3 | 20 |
| 29 | Orthogonally twisted planar concentric split ring resonators towards strong near field coupled terahertz metamaterials. <i>Applied Physics Letters</i> , 2014 , 104, 101105 | 3.4 | 20 |
| 28 | Active control of polarization-dependent near-field coupling in hybrid metasurfaces. <i>Applied Physics Letters</i> , 2018 , 113, 061111 | 3.4 | 19 |
| 27 | Influence of film thickness in THz active metamaterial devices: A comparison between superconductor and metal split-ring resonators. <i>Applied Physics Letters</i> , 2013 , 103, 061117 | 3.4 | 18 |
| 26 | Charge carrier relaxation processes in Tbas nano-inclusions in GaAs measured by optical-pump THz-probe transient absorption spectroscopy. <i>Physical Review B</i> , 2014 , 89, | 3.3 | 18 |

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| 25 | Large dynamic resonance transition between surface plasmon and localized surface plasmon modes. <i>Optics Express</i> , 2010 , 18, 12482-8 | 3.3 | 13 |
| 24 | Orientation dependent far-infrared terahertz absorptions in single crystal pentaerythritol tetranitrate (PETN) using terahertz time-domain spectroscopy. <i>Journal of Physical Chemistry A</i> , 2011 , 115, 439-42 | 2.8 | 11 |
| 23 | Displacement Current Mediated Resonances in Terahertz Metamaterials. <i>Advanced Optical Materials</i> , 2016 , 4, 1302-1309 | 8.1 | 9 |
| 22 | Coupling Schemes in Terahertz Planar Metamaterials. <i>International Journal of Optics</i> , 2012 , 2012, 1-12 | 0.9 | 8 |
| 21 | Determining the band alignment of TbAs:GaAs and TbAs:In _{0.53} Ga _{0.47} As. <i>Applied Physics Letters</i> , 2015 , 107, 102103 | 3.4 | 7 |
| 20 | Bandwidth Enhancement of Planar Terahertz Metasurfaces via Overlapping of Dipolar Modes. <i>Plasmonics</i> , 2020 , 15, 1925-1934 | 2.4 | 6 |
| 19 | Space-Time Quantum Metasurfaces. <i>Physical Review Letters</i> , 2021 , 127, 043603 | 7.4 | 5 |
| 18 | Characterization of a metafilm/metasurface. <i>Digest / IEEE Antennas and Propagation Society International Symposium</i> , 2009 , | | 4 |
| 17 | Modulating extraordinary terahertz transmissions in multilayer plasmonic metasurfaces. <i>Journal of Optics (United Kingdom)</i> , 2020 , 22, 125101 | 1.7 | 4 |
| 16 | Ultrafast Relaxation of Charge Carriers Induced Switching in Terahertz Metamaterials. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2018 , 39, 1211-1220 | 2.2 | 4 |
| 15 | Electromagnetic Response of Finite Terahertz Metafilm Arrays Excited on Total Internal Reflection Boundaries. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2013 , 3, 709-720 | 3.4 | 2 |
| 14 | Thermal and ultrafast optical tuning of ultrathin high-temperature superconducting terahertz metamaterials 2012 , | | 2 |
| 13 | Direct observation of electro-optic modulation in a single split-ring resonator. <i>Applied Physics Letters</i> , 2013 , 102, 091109 | 3.4 | 2 |
| 12 | Metamaterial radiation from attenuated total reflection at terahertz frequencies 2011 , | | 2 |
| 11 | Insight into fiber Bragg sensor response at 100-MHz interrogation rates under various dynamic loading conditions 2015 , | | 1 |
| 10 | Terahertz Metamaterials: Displacement Current Mediated Resonances in Terahertz Metamaterials (Advanced Optical Materials 8/2016). <i>Advanced Optical Materials</i> , 2016 , 4, 1312-1312 | 8.1 | 1 |
| 9 | Corrections to "Near field coupling in passive and active teraHertz metamaterial devices" [Nov 13 783-790]. <i>IEEE Transactions on Terahertz Science and Technology</i> , 2014 , 4, 400-400 | 3.4 | 1 |
| 8 | Broadband and high-efficiency terahertz metamaterial linear polarization converters 2013 , | | 1 |

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| 7 | Metamaterial based devices for terahertz imaging 2010 , | | 1 |
| 6 | Terahertz metamaterials 2009 , | | 1 |
| 5 | Active Terahertz Metamaterial Devices 2008 , | | 1 |
| 4 | A Novel Approach of Antireflection Coating Using Planar Metamaterials 2010 , | | 1 |
| 3 | Vibrational signatures in the THz spectrum of 1,3-DNB: A first-principles and experimental study. <i>Europhysics Letters</i> , 2016 , 114, 37010 | 1.6 | 1 |
| 2 | Temperature dependent terahertz properties of energetic materials 2016 , | | 1 |
| 1 | Dynamic Metamaterials at Terahertz Frequencies. <i>Springer Series in Chemical Physics</i> , 2009 , 645-647 | 0.3 | |