Abul K Azad

List of Publications by Year in Descending Order

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	Space-Time Quantum Metasurfaces. *Physical Review Letters*, **2021**, 127, 043603	7.4	5
77	Surface-wave-assisted nonreciprocity in spatio-temporally modulated metasurfaces. *Nature Communications*, **2020**, 11, 1469	17.4	38
76	Bandwidth Enhancement of Planar Terahertz Metasurfaces via Overlapping of Dipolar Modes. *Plasmonics*, **2020**, 15, 1925-1934	2.4	6
75	Modulating extraordinary terahertz transmissions in multilayer plasmonic metasurfaces. *Journal of Optics (United Kingdom)*, **2020**, 22, 125101	1.7	4
74	Active control of polarization-dependent near-field coupling in hybrid metasurfaces. *Applied Physics Letters*, **2018**, 113, 061111	3.4	19
73	Hybrid graphene metasurfaces for high-speed mid-infrared light modulation and single-pixel imaging. *Light: Science and Applications*, **2018**, 7, 51	16.7	137
72	High-Temperature Refractory Metasurfaces for Solar Thermophotovoltaic Energy Harvesting. *Nano Letters*, **2018**, 18, 7665-7673	11.5	69
71	Passive Radiative Thermostat Enabled by Phase-Change Photonic Nanostructures. *ACS Photonics*, **2018**, 5, 4554-4560	6.3	47
70	Ultrafast Relaxation of Charge Carriers Induced Switching in Terahertz Metamaterials. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2018**, 39, 1211-1220	2.2	4
69	Bilayer Metasurfaces for Dual- and Broadband Optical Antireflection. *ACS Photonics*, **2017**, 4, 2111-2116	6.3	26
68	Ultra-thin metasurface microwave flat lens for broadband applications. *Applied Physics Letters*, **2017**, 110, 224101	3.4	37
67	Terahertz Metamaterials: Displacement Current Mediated Resonances in Terahertz Metamaterials (Advanced Optical Materials 8/2016). *Advanced Optical Materials*, **2016**, 4, 1312-1312	8.1	1
66	Displacement Current Mediated Resonances in Terahertz Metamaterials. *Advanced Optical Materials*, **2016**, 4, 1302-1309	8.1	9
65	Frequency-agile electromagnetically induced transparency analogue in terahertz metamaterials. *Optics Letters*, **2016**, 41, 4562-4565	3	58
64	Vibrational signatures in the THz spectrum of 1,3-DNB: A first-principles and experimental study. *Europhysics Letters*, **2016**, 114, 37010	1.6	1
63	Metasurface Broadband Solar Absorber. *Scientific Reports*, **2016**, 6, 20347	4.9	148
62	Temperature dependent terahertz properties of energetic materials **2016**,		1

61	Conducting Interface in Oxide Homojunction: Understanding of Superior Properties in Black TiO2. *Nano Letters*, **2016**, 16, 5751-5	11.5	77
60	A graphene based tunable terahertz sensor with double Fano resonances. *Nanoscale*, **2015**, 7, 12682-8	7.7	154
59	Insight into fiber Bragg sensor response at 100-MHz interrogation rates under various dynamic loading conditions **2015**,		1
58	Coherent pulse interrogation system for fiber Bragg grating sensing of strain and pressure in dynamic extremes of materials. *Optics Express*, **2015**, 23, 14219-33	3.3	20
57	Determining the band alignment of TbAs:GaAs and TbAs:In0.53Ga0.47As. *Applied Physics Letters*, **2015**, 107, 102103	3.4	7
56	Independently tunable dual-band perfect absorber based on graphene at mid-infrared frequencies. *Scientific Reports*, **2015**, 5, 18463	4.9	108
55	Corrections to "Near field coupling in passive and active teraHertz metamaterial devices" [Nov 13 783-790]. *IEEE Transactions on Terahertz Science and Technology*, **2014**, 4, 400-400	3.4	1
54	Excitation of dark plasmonic modes in symmetry broken terahertz metamaterials. *Optics Express*, **2014**, 22, 19401-10	3.3	26
53	Orthogonally twisted planar concentric split ring resonators towards strong near field coupled terahertz metamaterials. *Applied Physics Letters*, **2014**, 104, 101105	3.4	20
52	Hybrid metasurface for ultra-broadband terahertz modulation. *Applied Physics Letters*, **2014**, 105, 181108	3.4	28
51	Charge carrier relaxation processes in TbAs nanoinclusions in GaAs measured by optical-pump THz-probe transient absorption spectroscopy. *Physical Review B*, **2014**, 89,	3.3	18
50	Influence of film thickness in THz active metamaterial devices: A comparison between superconductor and metal split-ring resonators. *Applied Physics Letters*, **2013**, 103, 061117	3.4	18
49	Ultrafast manipulation of near field coupling between bright and dark modes in terahertz metamaterial. *Applied Physics Letters*, **2013**, 102, 011122	3.4	79
48	Electromagnetic Response of Finite Terahertz Metafilm Arrays Excited on Total Internal Reflection Boundaries. *IEEE Transactions on Terahertz Science and Technology*, **2013**, 3, 709-720	3.4	2
47	Near Field Coupling in Passive and Active Terahertz Metamaterial Devices. *IEEE Transactions on Terahertz Science and Technology*, **2013**, 3, 783-790	3.4	26
46	A review of terahertz plasmonics in subwavelength holes on conducting films. *IEEE Journal of Selected Topics in Quantum Electronics*, **2013**, 19, 8400416-8400416	3.8	24
45	Terahertz metamaterials for linear polarization conversion and anomalous refraction. *Science*, **2013** , 340, 1304-7	33.3	1229
44	Direct observation of electro-optic modulation in a single split-ring resonator. *Applied Physics Letters*, **2013**, 102, 091109	3.4	2

43	Broadband and high-efficiency terahertz metamaterial linear polarization converters **2013**,		1
42	An active hybrid plasmonic metamaterial. *Optical Materials Express*, **2012**, 2, 31	2.6	37
41	Active control of electromagnetically induced transparency analogue in terahertz metamaterials. *Nature Communications*, **2012**, 3, 1151	17.4	783
40	Terahertz chiral metamaterials with giant and dynamically tunable optical activity. *Physical Review B*, **2012**, 86,	3.3	178
39	Optical tuning and ultrafast dynamics of high-temperature superconducting terahertz metamaterials. *Nanophotonics*, **2012**, 1, 117-123	6.3	63
38	Coupling Schemes in Terahertz Planar Metamaterials. *International Journal of Optics*, **2012**, 2012, 1-12	0.9	8
37	Thermal and ultrafast optical tuning of ultrathin high-temperature superconducting terahertz metamaterials **2012**,		2
36	Photoinduced handedness switching in terahertz chiral metamolecules. *Nature Communications*, **2012**, 3, 942	17.4	333
35	Impact of resonator geometry and its coupling with ground plane on ultrathin metamaterial perfect absorbers. *Applied Physics Letters*, **2012**, 101, 101102	3.4	140
34	Dynamically reconfigurable terahertz metamaterial through photo-doped semiconductor. *Applied Physics Letters*, **2011**, 99, 231101	3.4	68
33	A broadband planar terahertz metamaterial with nested structure. *Optics Express*, **2011**, 19, 15817-23	3.3	44
32	Thermal tunability in terahertz metamaterials fabricated on strontium titanate single-crystal substrates. *Optics Letters*, **2011**, 36, 1230-2	3	124
31	Metamaterial radiation from attenuated total reflection at terahertz frequencies **2011**,		2
30	Orientation dependent far-infrared terahertz absorptions in single crystal pentaerythritol tetranitrate (PETN) using terahertz time-domain spectroscopy. *Journal of Physical Chemistry A*, **2011**, 115, 439-42	2.8	11
29	Tuning the resonance in high-temperature superconducting terahertz metamaterials. *Physical Review Letters*, **2010**, 105, 247402	7.4	188
28	Metamaterial based devices for terahertz imaging **2010**,		1
27	Large dynamic resonance transition between surface plasmon and localized surface plasmon modes. *Optics Express*, **2010**, 18, 12482-8	3.3	13
26	Antireflection coating using metamaterials and identification of its mechanism. *Physical Review Letters*, **2010**, 105, 073901	7.4	249

25	A Novel Approach of Antireflection Coating Using Planar Metamaterials **2010**,		1
24	Characterization of a metafilm/metasurface. *Digest / IEEE Antennas and Propagation Society International Symposium*, **2009**,		4
23	A discussion on the interpretation and characterization of metafilms/metasurfaces: The two-dimensional equivalent of metamaterials. *Metamaterials*, **2009**, 3, 100-112		221
22	A metamaterial solid-state terahertz phase modulator. *Nature Photonics*, **2009**, 3, 148-151	33.9	679
21	Ultrafast optical control of terahertz surface plasmons in subwavelength hole arrays at room temperature. *Applied Physics Letters*, **2009**, 95, 011105	3.4	45
20	Metamaterials for THz polarimetric devices. *Optics Express*, **2009**, 17, 773-83	3.3	73
19	Terahertz metamaterials **2009**,		1
18	Dynamic Metamaterials at Terahertz Frequencies. *Springer Series in Chemical Physics*, **2009**, 645-647	0.3	
17	Experimental demonstration of frequency-agile terahertz metamaterials. *Nature Photonics*, **2008**, 2, 295-298	33.9	620
16	Characterization and analysis of terahertz metamaterials based on rectangular split-ring resonators. *Applied Physics Letters*, **2008**, 92, 011119	3.4	82
15	Effect of metal permittivity on resonant properties of terahertz metamaterials. *Optics Letters*, **2008**, 33, 1506-8	3	74
14	Electronic control of extraordinary terahertz transmission through subwavelength metal hole arrays. *Optics Express*, **2008**, 16, 7641-8	3.3	97
13	Carrier dynamics in InGaAs with embedded ErAs nanoislands. *Applied Physics Letters*, **2008**, 93, 121108	3.4	29
12	Active Terahertz Metamaterial Devices **2008**,		1
11	Effects of Microstructure Variations on Macroscopic Terahertz Metafilm Properties. *Active and Passive Electronic Components*, **2007**, 2007, 1-10	0.3	33
10	Coupling between surface plasmons and nonresonant transmission in subwavelength holes at terahertz frequencies. *Applied Physics Letters*, **2007**, 91, 071122	3.4	50
9	Direct observation of a transition of a surface plasmon resonance from a photonic crystal effect. *Physical Review Letters*, **2007**, 98, 183901	7.4	71
8	Terahertz Dielectric Properties and Low-Frequency Phonon Resonances of ZnO Nanostructures. *Journal of Physical Chemistry C*, **2007**, 111, 13000-13006	3.8	23

7	Terahertz dielectric properties of high-resistivity single-crystal ZnO. *Applied Physics Letters*, **2006**, 88, 021103	3.4	45
6	Far-infrared characteristics of ZnS nanoparticles measured by terahertz time-domain spectroscopy. *Journal of Physical Chemistry B*, **2006**, 110, 1989-93	3.4	37
5	Transmission properties of terahertz pulses through subwavelength double split-ring resonators. *Optics Letters*, **2006**, 31, 634-6	3	120
4	Effect of dielectric properties of metals on terahertz transmission subwavelength hole arrays. *Optics Letters*, **2006**, 31, 2637-9	3	68
3	Resonant terahertz transmission in subwavelength metallic hole arrays of sub-skin-depth thickness. *Optics Letters*, **2005**, 30, 2945-7	3	84
2	Transmission properties of terahertz pulses through an ultrathin subwavelength silicon hole array. *Applied Physics Letters*, **2005**, 86, 141102	3.4	71
1	Terahertz studies of carrier dynamics and dielectric response of n-type, freestanding epitaxial GaN. *Applied Physics Letters*, **2003**, 82, 2841-2843	3.4	68