

Abul K Azad

List of Publications by Year in descending order

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papers

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citations

71061

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99
all docs

99
docs citations

99
times ranked

6469
citing authors

#	ARTICLE	IF	CITATIONS
1	Terahertz Metamaterials for Linear Polarization Conversion and Anomalous Refraction. Science, 2013, 340, 1304-1307.	6.0	1,678
2	Active control of electromagnetically induced transparency analogue in terahertz metamaterials. Nature Communications, 2012, 3, 1151.	5.8	1,008
3	A metamaterial solid-state terahertz phase modulator. Nature Photonics, 2009, 3, 148-151.	15.6	864
4	Experimental demonstration of frequency-agile terahertz metamaterials. Nature Photonics, 2008, 2, 295-298.	15.6	765
5	Photoinduced handedness switching in terahertz chiral metamolecules. Nature Communications, 2012, 3, 942.	5.8	407
6	Antireflection Coating Using Metamaterials and Identification of Its Mechanism. Physical Review Letters, 2010, 105, 073901.	2.9	318
7	A discussion on the interpretation and characterization of metafilms/metasurfaces: The two-dimensional equivalent of metamaterials. Metamaterials, 2009, 3, 100-112.	2.2	295
8	Tuning the Resonance in High-Temperature Superconducting Terahertz Metamaterials. Physical Review Letters, 2010, 105, 247402.	2.9	240
9	Hybrid graphene metasurfaces for high-speed mid-infrared light modulation and single-pixel imaging. Light: Science and Applications, 2018, 7, 51.	7.7	226
10	Terahertz chiral metamaterials with giant and dynamically tunable optical activity. Physical Review B, 2012, 86, .	1.1	221
11	Metasurface Broadband Solar Absorber. Scientific Reports, 2016, 6, 20347.	1.6	220
12	A graphene based tunable terahertz sensor with double Fano resonances. Nanoscale, 2015, 7, 12682-12688.	2.8	217
13	Impact of resonator geometry and its coupling with ground plane on ultrathin metamaterial perfect absorbers. Applied Physics Letters, 2012, 101, .	1.5	170
14	Transmission properties of terahertz pulses through subwavelength double split-ring resonators. Optics Letters, 2006, 31, 634.	1.7	147
15	Independently tunable dual-band perfect absorber based on graphene at mid-infrared frequencies. Scientific Reports, 2016, 5, 18463.	1.6	145
16	Thermal tunability in terahertz metamaterials fabricated on strontium titanate single-crystal substrates. Optics Letters, 2011, 36, 1230.	1.7	143
17	High-Temperature Refractory Metasurfaces for Solar Thermophotovoltaic Energy Harvesting. Nano Letters, 2018, 18, 7665-7673.	4.5	140
18	Electronic control of extraordinary terahertz transmission through subwavelength metal hole arrays. Optics Express, 2008, 16, 7641.	1.7	119

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19	Resonant terahertz transmission in subwavelength metallic hole arrays of sub-skin-depth thickness. Optics Letters, 2005, 30, 2945.	1.7	109
20	Active Terahertz Metamaterial Devices. , 2008, , .		103
21	Characterization and analysis of terahertz metamaterials based on rectangular split-ring resonators. Applied Physics Letters, 2008, 92, .	1.5	102
22	Ultrafast manipulation of near field coupling between bright and dark modes in terahertz metamaterial. Applied Physics Letters, 2013, 102, .	1.5	94
23	Metamaterials for THz polarimetric devices. Optics Express, 2009, 17, 773.	1.7	93
24	Conducting Interface in Oxide Homojunction: Understanding of Superior Properties in Black TiO ₂ . Nano Letters, 2016, 16, 5751-5755.	4.5	92
25	Effect of metal permittivity on resonant properties of terahertz metamaterials. Optics Letters, 2008, 33, 1506.	1.7	91
26	Dynamically reconfigurable terahertz metamaterial through photo-doped semiconductor. Applied Physics Letters, 2011, 99, .	1.5	91
27	Terahertz studies of carrier dynamics and dielectric response of n-type, freestanding epitaxial GaN. Applied Physics Letters, 2003, 82, 2841-2843.	1.5	90
28	Transmission properties of terahertz pulses through an ultrathin subwavelength silicon hole array. Applied Physics Letters, 2005, 86, 141102.	1.5	84
29	Effect of dielectric properties of metals on terahertz transmission in subwavelength hole arrays. Optics Letters, 2006, 31, 2637.	1.7	81
30	Passive Radiative "Thermostat" Enabled by Phase-Change Photonic Nanostructures. ACS Photonics, 2018, 5, 4554-4560.	3.2	78
31	Direct Observation of a Transition of a Surface Plasmon Resonance from a Photonic Crystal Effect. Physical Review Letters, 2007, 98, 183901.	2.9	77
32	Optical tuning and ultrafast dynamics of high-temperature superconducting terahertz metamaterials. Nanophotonics, 2012, 1, 117-123.	2.9	75
33	Surface-wave-assisted nonreciprocity in spatio-temporally modulated metasurfaces. Nature Communications, 2020, 11, 1469.	5.8	72
34	Frequency-agile electromagnetically induced transparency analogue in terahertz metamaterials. Optics Letters, 2016, 41, 4562.	1.7	67
35	Ultra-thin metasurface microwave flat lens for broadband applications. Applied Physics Letters, 2017, 110, 224101.	1.5	64
36	Coupling between surface plasmons and nonresonant transmission in subwavelength holes at terahertz frequencies. Applied Physics Letters, 2007, 91, .	1.5	56

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37	Terahertz dielectric properties of high-resistivity single-crystal ZnO. Applied Physics Letters, 2006, 88, 021103.	1.5	52
38	A broadband planar terahertz metamaterial with nested structure. Optics Express, 2011, 19, 15817.	1.7	52
39	Ultrafast optical control of terahertz surface plasmons in subwavelength hole arrays at room temperature. Applied Physics Letters, 2009, 95, 011105.	1.5	50
40	Bilayer Metasurfaces for Dual- and Broadband Optical Antireflection. ACS Photonics, 2017, 4, 2111-2116.	3.2	47
41	An active hybrid plasmonic metamaterial. Optical Materials Express, 2012, 2, 31.	1.6	42
42	Far-Infrared Characteristics of ZnS Nanoparticles Measured by Terahertz Time-Domain Spectroscopy. Journal of Physical Chemistry B, 2006, 110, 1989-1993.	1.2	41
43	Effects of Microstructure Variations on Macroscopic Terahertz Metafilm Properties. Active and Passive Electronic Components, 2007, 2007, 1-10.	0.3	40
44	Hybrid metasurface for ultra-broadband terahertz modulation. Applied Physics Letters, 2014, 105, .	1.5	38
45	Carrier dynamics in InGaAs with embedded ErAs nanoislands. Applied Physics Letters, 2008, 93, 121108.	1.5	37
46	Near Field Coupling in Passive and Active Terahertz Metamaterial Devices. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 783-790.	2.0	31
47	Orthogonally twisted planar concentric split ring resonators towards strong near field coupled terahertz metamaterials. Applied Physics Letters, 2014, 104, .	1.5	30
48	Terahertz Dielectric Properties and Low-Frequency Phonon Resonances of ZnO Nanostructures. Journal of Physical Chemistry C, 2007, 111, 13000-13006.	1.5	29
49	A review of terahertz plasmonics in subwavelength holes on conducting films. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 8400416-8400416.	1.9	29
50	Excitation of dark plasmonic modes in symmetry broken terahertz metamaterials. Optics Express, 2014, 22, 19401.	1.7	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, .	1.1	28
52	Coherent pulse interrogation system for fiber Bragg grating sensing of strain and pressure in dynamic extremes of materials. Optics Express, 2015, 23, 14219.	1.7	28
53	Active control of polarization-dependent near-field coupling in hybrid metasurfaces. Applied Physics Letters, 2018, 113, .	1.5	28
54	Space-Time Quantum Metasurfaces. Physical Review Letters, 2021, 127, 043603.	2.9	28

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55	Influence of film thickness in THz active metamaterial devices: A comparison between superconductor and metal split-ring resonators. Applied Physics Letters, 2013, 103, .	1.5	25
56	Large dynamic resonance transition between surface plasmon and localized surface plasmon modes. Optics Express, 2010, 18, 12482.	1.7	19
57	Coupling Schemes in Terahertz Planar Metamaterials. International Journal of Optics, 2012, 2012, 1-12.	0.6	18
58	Modulating extraordinary terahertz transmissions in multilayer plasmonic metasurfaces. Journal of Optics (United Kingdom), 2020, 22, 125101.	1.0	17
59	Bandwidth Enhancement of Planar Terahertz Metasurfaces via Overlapping of Dipolar Modes. Plasmonics, 2020, 15, 1925-1934.	1.8	14
60	Orientation Dependent Far-Infrared Terahertz Absorptions in Single Crystal Pentaerythritol Tetranitrate (PETN) Using Terahertz Time-Domain Spectroscopy. Journal of Physical Chemistry A, 2011, 115, 439-442.	1.1	13
61	Displacement Current Mediated Resonances in Terahertz Metamaterials. Advanced Optical Materials, 2016, 4, 1302-1309.	3.6	12
62	Determining the band alignment of TbAs:GaAs and TbAs:In _{0.53} Ga _{0.47} As. Applied Physics Letters, 2015, 107, .	1.5	8
63	Ultrafast Relaxation of Charge Carriers Induced Switching in Terahertz Metamaterials. Journal of Infrared, Millimeter, and Terahertz Waves, 2018, 39, 1211-1220.	1.2	5
64	Characterization of a metafilm/metasurface. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	4
65	Electromagnetic Response of Finite Terahertz Metafilm Arrays Excited on Total Internal Reflection Boundaries. IEEE Transactions on Terahertz Science and Technology, 2013, 3, 709-720.	2.0	3
66	Broadband and high-efficiency terahertz metamaterial linear polarization converters. , 2013, , .		3
67	Metamaterial radiation from attenuated total reflection at terahertz frequencies. , 2011, , .		2
68	A novel approach to further decrease the thickness of ultrathin perfect metamaterial absorbers. , 2012, , .		2
69	Thermal and ultrafast optical tuning of ultrathin high-temperature superconducting terahertz metamaterials. Proceedings of SPIE, 2012, , .	0.8	2
70	Direct observation of electro-optic modulation in a single split-ring resonator. Applied Physics Letters, 2013, 102, .	1.5	2
71	Terahertz metamaterials. , 2009, , .		1
72	Terahertz spectroscopy of two-dimensional subwavelength plasmonic structures. , 2009, , .		1

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73	Metamaterial based devices for terahertz imaging. , 2010, , .		1
74	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.	2.0	1
75	Insight into fiber Bragg sensor response at 100-MHz interrogation rates under various dynamic loading conditions. Proceedings of SPIE, 2015, , .	0.8	1
76	Vibrational signatures in the THz spectrum of 1,3-DNB: A first-principles and experimental study. Europhysics Letters, 2016, 114, 37010.	0.7	1
77	Temperature dependent terahertz properties of energetic materials. Proceedings of SPIE, 2016, , .	0.8	1
78	Terahertz Metamaterials: Displacement Current Mediated Resonances in Terahertz Metamaterials (Advanced Optical Materials 8/2016). Advanced Optical Materials, 2016, 4, 1312-1312.	3.6	1
79	Active tuning of coupled resonance modes in terahertz metamaterials. , 2011, , .		1
80	A Novel Approach of Antireflection Coating Using Planar Metamaterials. , 2010, , .		1
81	A circuit model for terahertz metafilms and effective medium implications. , 2008, , .		0
82	Perfect sub-wavelength metamaterial fishnet-like film absorbers for THz applications. , 2009, , .		0
83	Perfect Terahertz Absorber Using Fishnet Based Metafilm. , 2010, , .		0
84	Multilayer terahertz metamaterials: Interactions between layers within the deep-subwavelength limit. , 2010, , .		0
85	Controlling terahertz waves with meta-materials and photonic bandgap structures. , 2011, , .		0
86	Active terahertz metamaterials. , 2011, , .		0
87	Tunable and Nonlinear Microwave and Terahertz Metamaterials. , 2011, , .		0
88	Ultrafast optical control of terahertz surface plasmons in subwavelength hole-arrays at room temperature. Proceedings of SPIE, 2011, , .	0.8	0
89	Enhanced electro-optic modulation in a single split-ring resonator. , 2013, , .		0
90	Charge Carrier Relaxation Processes in TbAs NanoInclusions in GaAs Measured By Optical-Pump THz-Probe Transient Absorption Spectroscopy. , 2014, , .		0

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91	Efficient metamaterial flat lenses. , 2014, , .		0
92	Ultra-broadband terahertz modulation by active hybrid metamaterials. , 2014, , .		0
93	Terahertz metasurfaces for antireflection coatings. , 2015, , .		0
94	Tuning of terahertz metamaterialsâ€™ resonances via near field coupling. Proceedings of SPIE, 2015, , .	0.8	0
95	Active Terahertz Metamaterials. , 2009, , .		0
96	Dynamic Metamaterials at Terahertz Frequencies. Springer Series in Chemical Physics, 2009, , 645-647.	0.2	0
97	A Broadband Terahertz Metamaterial Electrical Modulator. , 2009, , .		0
98	Ultrafast control of near field coupling in terahertz metamaterials. , 2013, , .		0