Viktar S Asadchy

List of Publications by Year
in descending order

79 papers	2,934 citations	270111 25 h-index	299063 42 g-index
80 all docs	80 docs citations	80 times ranked	2281 citing authors

#	Article	IF	Citations
1	Topological Materials for Functional Optoelectronic Devices. Advanced Functional Materials, 2022, 32, .	7.8	15
2	Violating Kirchhoffâ€™s Law of Thermal Radiation in Semitransparent Structures. ACS Photonics, 2021, 8, 2417-2424.	3.2	49
3	Nontrivial point-gap topology and non-Hermitian skin effect in photonic crystals. Physical Review B, 2021, 104, .	1.1	40
4	Spaceâ€“Time Metasurfaces for Power Combining of Waves. ACS Photonics, 2021, 8, 3034-3041.	3.2	26
5	Reciprocal Metasurfaces for On-Axis Reflective Optical Computing. IEEE Transactions on Antennas and Propagation, 2021, 69, 7709-7719.	3.1	13
6	Nonscattering Metasurface-Bound Cavities for Field Localization, Enhancement, and Suppression. IEEE Transactions on Antennas and Propagation, 2020, 68, 1689-1703.	3.1	9
7	Tutorial on Electromagnetic Nonreciprocity and its Origins. Proceedings of the IEEE, 2020, 108, 1684-1727.	16.4	114
8	Polarization Control with Helical Metasurfaces. Crystals, 2020, 10, 726.	1.0	7
9	Threeâ€dimensional Random Dielectric Colloid Metamaterial with Giant Isotropic Optical Activity. Laser and Photonics Reviews, 2020, 14, 2000151.	4.4	6
10	Subâ€Wavelength Passive Optical Isolators Using Photonic Structures Based on Weyl Semimetals. Advanced Optical Materials, 2020, 8, 2000100.	3.6	79
11	Nonreciprocity in Bianisotropic Systems with Uniform Time Modulation. Physical Review Letters, 2020, 125, 266102.	2.9	43
12	Step-wise homogeneous passive coatings for reduction of electromagnetic scattering from cylindrical metallic bodies. Journal of Optics (United Kingdom), 2020, 22, 105601.	1.0	5
13	Time-modulated reactive elements for control of electromagnetic energy. URSI Radio Science Bulletin, 2020, 2020, 39-45.	0.2	0
14	Non-scattering Systems for Field Localization and Emission Enhancement. , 2019, , .		0
15	Roadmap on metasurfaces. Journal of Optics (United Kingdom), 2019, 21, 073002.	1.0	146
16	Modular Analysis of Arbitrary Dipolar Scatterers. Physical Review Applied, 2019, 12, .	1.5	8
17	Omega-bianisotropic metasurface for converting a propagating wave into a surface wave. Physical Review B, 2019, 100, .	1.1	16
18	Non-Scattering Multi-Mirror Systems for Field Localization. , 2019, , .		0

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19	Nonreciprocal Transmission through Locally Time-Modulated Bianisotropic Metafilms. , 2019, , .		1
20	All-dielectric metamirror for independent and asymmetric wave-front control. Physical Review B, 2019, 100, .	1.1	5
21	Advanced Control of Invisible Cavity Resonators with Bianisotropic Metasurfaces. , 2019, , .		1
22	Applications and Potentials of Reciprocal Bianisotropic Metasurfaces. , 2019, , .		1
23	Time-Modulated Reactive Elements for Control of Electromagnetic Energy. , 2019, , .		4
24	Time-Varying Reactive Elements for Extreme Accumulation of Electromagnetic Energy. Physical Review Applied, 2019, 11, .	1.5	84
25	Bianisotropic metasurfaces: physics and applications. Nanophotonics, 2018, 7, 1069-1094.	2.9	175
26	Susceptibility Derivation and Experimental Demonstration of Refracting Metasurfaces Without Spurious Diffraction. IEEE Transactions on Antennas and Propagation, 2018, 66, 1321-1330.	3.1	129
27	Microwave reflecting focusing metasurface based on water. , 2018, , .		0
28	Extreme Asymmetry in Metasurfaces via Evanescent Fields Engineering: Angular-Asymmetric Absorption. Physical Review Letters, 2018, 121, 256802.	2.9	66
29	Embedding Fields Into Invisible Metasurface-Bound Volumes. , 2018, , .		0
30	Modular approach to understanding and synthesis of metamaterials and metasurfaces. , 2018, , .		0
31	Time-modulated structures for energy accumulation. , 2018, , .		0
32	Planar Broadband Huygensâ€™ Metasurfaces for Wave Manipulations. IEEE Transactions on Antennas and Propagation, 2018, 66, 7117-7127.	3.1	41
33	Eliminating Scattering Loss in Anomalously Reflecting Optical Metasurfaces. ACS Photonics, 2017, 4, 1264-1270.	3.2	72
34	Metasurfaces for perfect control of reflection. , 2017, , .		9
35	Investigation of electromagnetic properties of a high absorptive, weakly reflective metamaterialâ€"substrate system with compensated chirality. Journal of Applied Physics, 2017, 121, .	1.1	14
36	Design of microwave all-dielectric focusing metasurface based on bianisotropic resonators. AIP Conference Proceedings, 2017, , .	0.3	0

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37	From the generalized reflection law to the realization of perfect anomalous reflectors. Science Advances, 2017, 3, e1602714.	4.7	324
38	Flat Engineered Multichannel Reflectors. Physical Review X, 2017, 7, .	2.8	96
39	Metasurfaces for General Control of Reflection and Transmission. World Scientific Series in Nanoscience and Nanotechnology, 2017, , 249-293.	0.1	6
40	Multi-channel reflectors: Versatile performance experimentally tested. , 2017, , .		0
41	Non-local metasurfaces for perfect control of reflection and transmission. , 2017, , .		2
42	Perfectly refractive metasurface using bianisotropy. , 2017, , .		1
43	Perfect Reflectarrays Elements Based on Non-local Metasurfaces. , 2017, , .		0
44	Scanning Characteristics of Metamirror Antennas With Subwavelength Focal Distance. IEEE Transactions on Antennas and Propagation, 2016, 64, 3656-3660.	3.1	8
45	Large-area ground-free terahertz absorbers. , 2016, , .		0
46	Purely bianisotropic scatterers. Physical Review B, 2016, 94, .	1.1	20
47	Synthesis of a nongyrotropic nonreciprocal metasurface as an equivalent to a moving medium. , 2016, , .		1
48	Scanning properties of novel metasurface-based reflector antennas. , 2016, , .		2
49	Suitability of roll-to-roll reverse offset printing for mass production of millimeter-wave antennas: Progress report. , 2016, , .		7
50	Perfect control of reflection and refraction using spatially dispersive metasurfaces. Physical Review B, 2016, 94, .	1.1	389
51	Multifunctional Cascaded Metamaterials: Integrated Transmitarrays. IEEE Transactions on Antennas and Propagation, 2016, 64, 4266-4276.	3.1	43
52	Multifunctional cascaded metasurfaces. , 2016, , .		0
53	Metasurfaces for perfect and full control of refraction and reflection. , 2016, , .		4
54	Towards printed millimeter-wave components: Material characterization. , 2016, , .		4

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55	Magnetoelectric coupling without electric and magnetic response?. , 2016, , .		1
56	General approach to the synthesis of perfectly refractive metasurfaces. , 2016, , .		0
57	Optical metamirror: all-dielectric frequency-selective mirror with fully controllable reflection phase. Journal of the Optical Society of America B: Optical Physics, 2016, 33, A16.	0.9	39
58	Nihility in non-reciprocal bianisotropic media. EPJ Applied Metamaterials, 2015, 2, 6.	0.8	6
59	Extreme electromagnetic properties with bianisotropic nihility. , 2015, , .		0
60	Broadband Reflectionless Metasheets: Frequency-Selective Transmission and Perfect Absorption. Physical Review X, 2015, 5, .	2.8	126
61	Functional Metamirrors Using Bianisotropic Elements. Physical Review Letters, 2015, 114, 095503.	2.9	141
62	A Bianisotropic Metasurface With Resonant Asymmetric Absorption. IEEE Transactions on Antennas and Propagation, 2015, 63, 3004-3015.	3.1	58
63	Full Light Absorption in Single Arrays of Spherical Nanoparticles. ACS Photonics, 2015, 2, 653-660.	3.2	53
64	Metamirrors. , 2014, , .		0
65	Magneto-dielectric metasurfaces. , 2014, , .		0
66	Analytical polarizabilities of nonreciprocal bianisotropic particles. , 2014, , .		1
67	A single-layer meta-atom absorber. , 2014, , .		3
68	One-way transparent sheets. Physical Review B, 2014, 89, .	1.1	61
69	Investigation of the properties of weakly reflective metamaterials with compensated chirality. Crystallography Reports, 2014, 59, 480-485.	0.1	8
70	Tailoring Reflections From Thin Composite Metamirrors. IEEE Transactions on Antennas and Propagation, 2014, 62, 3749-3760.	3.1	81
71	Determining polarizability tensors for an arbitrary small electromagnetic scatterer. Photonics and Nanostructures - Fundamentals and Applications, 2014, 12, 298-304.	1.0	71
72	Polarizabilities of Nonreciprocal Bianisotropic Particles. Physical Review Applied, 2014, 1, .	1.5	24

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73	Total Absorption of Electromagnetic Waves in Ultimately Thin Layers. IEEE Transactions on Antennas and Propagation, 2013, 61, 4606-4614.	3.1	168
74	Towards high-impedance surfaces realization using single-layer arrays of electrically small particles. , 2013, , .		0
75	Non-reciprocal one-way transparent sheets. , 2013, , .		1
76	Single-layer dipole arrays for general transformations of plane waves. , 2013, , .		0
77	Optimal arrangement of smooth helices in uniaxial 2D-arrays. , 2013, , .		7
78	Cloak based on non-resonant straight wires. , 2013, , .		0
79	Nonreciprocity brings new features to ultimately thin absorbers. , 2013, , .		0