

Rasoul Alaei

List of Publications by Year in descending order

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Version: 2024-02-01

47
papers

2,355
citations

331670

21
h-index

233421

45
g-index

47
all docs

47
docs citations

47
times ranked

2460
citing authors

#	ARTICLE	IF	CITATIONS
1	A perfect absorber made of a graphene micro-ribbon metamaterial. Optics Express, 2012, 20, 28017.	3.4	507
2	An electromagnetic multipole expansion beyond the long-wavelength approximation. Optics Communications, 2018, 407, 17-21.	2.1	266
3	A generalized Kerker condition for highly directive nanoantennas. Optics Letters, 2015, 40, 2645.	3.3	201
4	Theory of metasurface based perfect absorbers. Journal Physics D: Applied Physics, 2017, 50, 503002.	2.8	138
5	Tunable graphene antennas for selective enhancement of THz-emission. Optics Express, 2013, 21, 3737.	3.4	104
6	Exact Multipolar Decompositions with Applications in Nanophotonics. Advanced Optical Materials, 2019, 7, 1800783.	7.3	86
7	Magnetolectric coupling in nonidentical plasmonic nanoparticles: Theory and applications. Physical Review B, 2015, 91, .	3.2	83
8	All-dielectric reciprocal bianisotropic nanoparticles. Physical Review B, 2015, 92, .	3.2	79
9	Cavity-Enhanced and Ultrafast Superconducting Single-Photon Detectors. Nano Letters, 2016, 16, 7085-7092.	9.1	77
10	Deep-Subwavelength Plasmonic Nanoresonators Exploiting Extreme Coupling. Nano Letters, 2013, 13, 3482-3486.	9.1	61
11	A Bianisotropic Metasurface With Resonant Asymmetric Absorption. IEEE Transactions on Antennas and Propagation, 2015, 63, 3004-3015.	5.1	58
12	Perfect absorbers on curved surfaces and their potential applications. Optics Express, 2012, 20, 18370.	3.4	51
13	Manipulating the interaction between localized and delocalized surface plasmon-polaritons in graphene. Physical Review B, 2014, 90, .	3.2	49
14	Experimental realisation of all-dielectric bianisotropic metasurfaces. Applied Physics Letters, 2016, 108, .	3.3	46
15	Phase-change material-based nanoantennas with tunable radiation patterns. Optics Letters, 2016, 41, 4099.	3.3	45
16	Exact dipolar moments of a localized electric current distribution. Optics Express, 2015, 23, 33044.	3.4	44
17	Beyond dipolar Huygens's TM metasurfaces for full-phase coverage and unity transmittance. Nanophotonics, 2020, 9, 75-82.	6.0	35
18	Fundamental limits of optical force and torque. Physical Review B, 2017, 95, .	3.2	30

#	ARTICLE	IF	CITATIONS
19	Optical Pulling and Pushing Forces in Bilayer $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mi mathvariant="script"} \rangle \text{P} \langle \text{mml:mi} \rangle \langle \text{mml:mi mathvariant="script"} \rangle \text{T} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ -Symmetric Structures. Physical Review Applied, 2018, 9, .	3.8	28
20	Quantum Metamaterials with Magnetic Response at Optical Frequencies. Physical Review Letters, 2020, 125, 063601.	7.8	27
21	Revisiting substrate-induced bianisotropy in metasurfaces. Physical Review B, 2015, 91, .	3.2	24
22	Optical force and torque on dipolar dual chiral particles. Physical Review B, 2016, 94, .	3.2	22
23	Purely bianisotropic scatterers. Physical Review B, 2016, 94, .	3.2	20
24	Plasmonic nanoring fabrication tuned to pitch: Efficient, deterministic, and large scale realization of ultra-small gaps for next generation plasmonic devices. Applied Physics Letters, 2014, 105, .	3.3	18
25	Dynamic coherent perfect absorption in nonlinear metasurfaces. Optics Letters, 2020, 45, 6414.	3.3	18
26	Giant Asymmetric Second-Harmonic Generation in Bianisotropic Metasurfaces Based on Bound States in the Continuum. ACS Photonics, 2021, 8, 3234-3240.	6.6	18
27	A Comprehensive Multipolar Theory for Periodic Metasurfaces. Advanced Optical Materials, 2022, 10, .	7.3	18
28	Superscattering, Superabsorption, and Nonreciprocity in Nonlinear Antennas. ACS Photonics, 2021, 8, 585-591.	6.6	17
29	Scattering Dark States in Multiresonant Concentric Plasmonic Nanorings. ACS Photonics, 2015, 2, 1085-1090.	6.6	16
30	Ultrafast Topological Engineering in Metamaterials. Physical Review Letters, 2020, 125, 037403.	7.8	16
31	Exploiting extreme coupling to realize a metamaterial perfect absorber. Microelectronic Engineering, 2013, 111, 110-113.	2.4	15
32	Kelvin's chirality of optical beams. Physical Review A, 2021, 103, .	2.5	15
33	Minimalist Mie coefficient model. Optics Express, 2020, 28, 16511.	3.4	14
34	Genuine effectively biaxial left-handed metamaterials due to extreme coupling. Optics Letters, 2012, 37, 596.	3.3	13
35	Bottom-Up Fabrication of Hybrid Plasmonic Sensors: Gold-Capped Hydrogel Microspheres Embedded in Periodic Metal Hole Arrays. ACS Applied Materials & Interfaces, 2016, 8, 26392-26399.	8.0	13
36	Enhancement of second-harmonic generation in nonlinear nanolaminate metamaterials by nanophotonic resonances. Optics Express, 2016, 24, 9651.	3.4	12

#	ARTICLE	IF	CITATIONS
37	Optical force rectifiers based on PT-symmetric metasurfaces. <i>Physical Review B</i> , 2018, 97, .	3.2	12
38	Kerker effect, superscattering, and scattering dark states in atomic antennas. <i>Physical Review Research</i> , 2020, 2, .	3.6	12
39	Fourier-Engineered Plasmonic Lattice Resonances. <i>ACS Nano</i> , 2022, 16, 5696-5703.	14.6	11
40	Propagation of electromagnetic fields in bulk terahertz metamaterials: A combined experimental and theoretical study. <i>Physical Review B</i> , 2013, 87, .	3.2	8
41	Extreme coupling: A route towards local magnetic metamaterials. <i>Physical Review B</i> , 2014, 89, .	3.2	8
42	Theory of optical forces on small particles by multiple plane waves. <i>Journal of Applied Physics</i> , 2018, 124, .	2.5	8
43	Optically assisted trapping with high-permittivity dielectric rings: Towards optical aerosol filtration. <i>Applied Physics Letters</i> , 2016, 109, .	3.3	5
44	Optical alignment of oval graphene flakes. <i>Optics Letters</i> , 2017, 42, 1039.	3.3	5
45	Colossal enhancement of the magnetic dipole moment by exploiting lattice coupling in metasurfaces. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2021, 38, C217.	2.1	2
46	Selective excitation of subwavelength atomic clouds. <i>Physical Review Research</i> , 2021, 3, .	3.6	0
47	Highly Asymmetric Second-Harmonic Generation in a Bianisotropic Metasurface Assisted by Quasi-BICs. , 2021, , .		0