

Mohsen Rahmani

List of Publications by Year in descending order

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74
papers

4,181
citations

109264

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114418

63
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76
all docs

76
docs citations

76
times ranked

4537
citing authors

#	ARTICLE	IF	CITATIONS
1	Non-plasmonic nanoantennas for surface enhanced spectroscopies with ultra-low heat conversion. Nature Communications, 2015, 6, 7915.	5.8	433
2	Third-harmonic-upconversion enhancement from a single semiconductor nanoparticle coupled to a plasmonic antenna. Nature Nanotechnology, 2014, 9, 290-294.	15.6	371
3	Fano resonance in novel plasmonic nanostructures. Laser and Photonics Reviews, 2013, 7, 329-349.	4.4	261
4	Nonlinear Generation of Vector Beams From AlGaAs Nanoantennas. Nano Letters, 2016, 16, 7191-7197.	4.5	237
5	Multiresonant Broadband Optical Antennas As Efficient Tunable Nanosources of Second Harmonic Light. Nano Letters, 2012, 12, 4997-5002.	4.5	184
6	Dynamic Nonlinear Image Tuning through Magnetic Dipole Quasi-BIC Ultrathin Resonators. Advanced Science, 2019, 6, 1802119.	5.6	174
7	Reversible Thermal Tuning of All-Dielectric Metasurfaces. Advanced Functional Materials, 2017, 27, 1700580.	7.8	146
8	Subgroup Decomposition of Plasmonic Resonances in Hybrid Oligomers: Modeling the Resonance Lineshape. Nano Letters, 2012, 12, 2101-2106.	4.5	144
9	Boosting third-harmonic generation by a mirror-enhanced anapole resonator. Light: Science and Applications, 2018, 7, 44.	7.7	127
10	Ultrasensitive Broadband Probing of Molecular Vibrational Modes with Multifrequency Optical Antennas. ACS Nano, 2013, 7, 669-675.	7.3	125
11	Nonlinear Optical Magnetism Revealed by Second-Harmonic Generation in Nanoantennas. Nano Letters, 2017, 17, 3914-3918.	4.5	100
12	Spontaneous photon-pair generation from a dielectric nanoantenna. Optica, 2019, 6, 1416.	4.8	98
13	High-Efficiency Second Harmonic Generation from a Single Hybrid ZnO Nanowire/Au Plasmonic Nano-Oligomer. Nano Letters, 2014, 14, 6660-6665.	4.5	93
14	Selective Third-Harmonic Generation by Structured Light in Mie-Resonant Nanoparticles. ACS Photonics, 2018, 5, 728-733.	3.2	87
15	Enhanced light-matter interactions in dielectric nanostructures via machine-learning approach. Advanced Photonics, 2020, 2, 1.	6.2	81
16	Plasmonic Nanoantennas for Multispectral Surface-Enhanced Spectroscopies. Journal of Physical Chemistry C, 2013, 117, 18620-18626.	1.5	71
17	Nonlinear Anisotropic Dielectric Metasurfaces for Ultrafast Nanophotonics. ACS Photonics, 2017, 4, 2129-2136.	3.2	70
18	The Interplay of Symmetry and Scattering Phase in Second Harmonic Generation from Gold Nanoantennas. Nano Letters, 2016, 16, 5278-5285.	4.5	69

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19	Tailoring Second-Harmonic Emission from (111)-GaAs Nanoantennas. Nano Letters, 2019, 19, 3905-3911.	4.5	66
20	Nonlinear frequency conversion in optical nanoantennas and metasurfaces: materials evolution and fabrication. Opto-Electronic Advances, 2018, 1, 18002101-18002112.	6.4	65
21	Adiabatic Nanofocusing in Hybrid Gap Plasmon Waveguides on the Silicon-on-Insulator Platform. Nano Letters, 2016, 16, 1410-1414.	4.5	57
22	Hybrid Metasurface Based Tunable Near-Perfect Absorber and Plasmonic Sensor. Materials, 2018, 11, 1091.	1.3	56
23	Plasmonic Nanoclusters with Rotational Symmetry: Polarization-Invariant Far-Field Response vs Changing Near-Field Distribution. ACS Nano, 2013, 7, 11138-11146.	7.3	53
24	Forward and Backward Switching of Nonlinear Unidirectional Emission from GaAs Nanoantennas. ACS Nano, 2020, 14, 1379-1389.	7.3	53
25	Third Harmonic Generation Enhanced by Multipolar Interference in Complementary Silicon Metasurfaces. ACS Photonics, 2018, 5, 1671-1675.	3.2	52
26	Split-ball resonator as a three-dimensional analogue of planar split-rings. Nature Communications, 2014, 5, 3104.	5.8	51
27	High-Efficiency Visible Light Manipulation Using Dielectric Metasurfaces. Scientific Reports, 2019, 9, 6510.	1.6	51
28	Unveiling the Correlation between Nanometer-Thick Molecular Monolayer Sensitivity and Near-Field Enhancement and Localization in Coupled Plasmonic Oligomers. ACS Nano, 2014, 8, 9188-9198.	7.3	50
29	Shaping the third-harmonic radiation from silicon nanodimers. Nanoscale, 2017, 9, 2201-2206.	2.8	50
30	Tunable unidirectional nonlinear emission from transition-metal-dichalcogenide metasurfaces. Nature Communications, 2021, 12, 5597.	5.8	49
31	Nanostructured Dielectric Fractals on Resonant Plasmonic Metasurfaces for Selective and Sensitive Optical Sensing of Volatile Compounds. Advanced Materials, 2018, 30, e1800931.	11.1	47
32	Theory, Observation, and Ultrafast Response of the Hybrid Anapole Regime in Light Scattering. Laser and Photonics Reviews, 2021, 15, 2100114.	4.4	44
33	Reversible Image Contrast Manipulation with Thermally Tunable Dielectric Metasurfaces. Small, 2019, 15, 1805142.	5.2	41
34	Plasmonic linear nanomotor using lateral optical forces. Science Advances, 2020, 6, .	4.7	41
35	Tailored Hypersound Generation in Single Plasmonic Nanoantennas. Nano Letters, 2016, 16, 1428-1434.	4.5	40
36	Edge Detection with Mie-Resonant Dielectric Metasurfaces. ACS Photonics, 2021, 8, 864-871.	3.2	39

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37	Tuning Interior Nanogaps of Double-shelled Au/Ag Nanoboxes for Surface-Enhanced Raman Scattering. <i>Scientific Reports</i> , 2015, 5, 8382.	1.6	35
38	Realization of Variable Three-Dimensional Terahertz Metamaterial Tubes for Passive Resonance Tunability. <i>Advanced Materials</i> , 2012, 24, OP143-7.	11.1	34
39	Nonlinear Symmetry Breaking in Symmetric Oligomers. <i>ACS Photonics</i> , 2017, 4, 454-461.	3.2	32
40	Beyond the Hybridization Effects in Plasmonic Nanoclusters: Diffraction-Induced Enhanced Absorption and Scattering. <i>Small</i> , 2014, 10, 576-583.	5.2	30
41	Photonic Fractal Metamaterials: A Metal-Semiconductor Platform with Enhanced Volatile Compound Sensing Performance. <i>Advanced Materials</i> , 2020, 32, e2002471.	11.1	27
42	Resonant harmonic generation in AlGaAs nanoantennas probed by cylindrical vector beams. <i>Nanoscale</i> , 2019, 11, 1745-1753.	2.8	26
43	Deeply Subwavelength Metasurface Resonators for Terahertz Wavefront Manipulation. <i>Advanced Optical Materials</i> , 2019, 7, 1900736.	3.6	25
44	Use of a gold reflecting-layer in optical antenna substrates for increase of photoluminescence enhancement. <i>Optics Express</i> , 2013, 21, 12552.	1.7	23
45	Highly-Efficient Longitudinal Second-Harmonic Generation from Doubly-Resonant AlGaAs Nanoantennas. <i>Photonics</i> , 2018, 5, 29.	0.9	21
46	Nanoceramics: Synthesis, Characterization, and Applications. <i>Journal of Nanomaterials</i> , 2014, 2014, 1-2.	1.5	20
47	Widely tuneable scattering-type scanning near-field optical microscopy using pulsed quantum cascade lasers. <i>Applied Physics Letters</i> , 2013, 103, 213110.	1.5	19
48	Unveiling the Origin of Third Harmonic Generation in Hybrid ITO-Plasmonic Crystals. <i>Advanced Optical Materials</i> , 2015, 3, 1059-1065.	3.6	19
49	High-Temperature Large-Scale Self-Assembly of Highly Faceted Monocrystalline Au Metasurfaces. <i>Advanced Functional Materials</i> , 2019, 29, 1806387.	7.8	16
50	Complex-Birefringent Dielectric Metasurfaces for Arbitrary Polarization-Pair Transformations. <i>ACS Photonics</i> , 2020, 7, 3015-3022.	3.2	14
51	Probing the dielectric response of graphene via dual-band plasmonic nanoresonators. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 5395.	1.3	10
52	Resonant Dielectric Metagratings for Response Intensified Optical Sensing. <i>Advanced Functional Materials</i> , 2022, 32, 2103143.	7.8	8
53	Polarisation-independent enhanced scattering by tailoring asymmetric plasmonic systems. <i>Nanoscale</i> , 2016, 8, 6021-6027.	2.8	7
54	High-contrast and reversible scattering switching via hybrid metal-dielectric metasurfaces. <i>Beilstein Journal of Nanotechnology</i> , 2018, 9, 460-467.	1.5	7

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55	Light-Matter interactions on the nanoscale. Beilstein Journal of Nanotechnology, 2018, 9, 2125-2127.	1.5	6
56	Dual-Region Resonant Meander Metamaterial. Advanced Optical Materials, 2020, 8, 1901658.	3.6	6
57	Synthetic Plasmonic Nanocircuits and the Evolution of Their Correlated Spatial Arrangement and Resonance Spectrum. ACS Photonics, 2021, 8, 166-174.	3.2	6
58	High Fluence Chromium and Tungsten Bowtie Nano-antennas. Scientific Reports, 2019, 9, 13023.	1.6	4
59	Ellipsometric detection of ferritin adsorption on gold after UV irradiation. AIP Conference Proceedings, 2019, , .	0.3	2
60	Photonic Metamaterials: Photonic Fractal Metamaterials: A Metal-Semiconductor Platform with Enhanced Volatile-Compound Sensing Performance (Adv. Mater. 50/2020). Advanced Materials, 2020, 32, 2070376.	11.1	2
61	Localized Nanopore Fabrication via Controlled Breakdown. Nanomaterials, 2022, 12, 2384.	1.9	2
62	Complex-Birefringent and Chiral Waveplates with Metasurfaces. , 2019, , .		1
63	Highly Sensitive Resonant Dielectric Metagrating Sensors. , 2021, , .		1
64	Second order nonlinear frequency generation at the nanoscale in dielectric platforms. Advances in Physics: X, 2022, 7, .	1.5	1
65	Mixing colors of light in nonlinear dielectric nanoantennas and metasurfaces. , 2017, , .		0
66	Experimental Demonstration of Edge Detection by Dielectric Metasurfaces. , 2019, , .		0
67	Second-Harmonic Generation in (111) Gallium Arsenide Nanoantennas. , 2019, , .		0
68	Diffraction Metagrating Sensor: An Improved Technique for Response Intensification. , 2021, , .		0
69	Metasurface Dichroic Mirrors: Application to Low Quantum Defect Lasers. , 2021, , .		0
70	Surface that perceives depth: 3D imaging with metasurfaces. Advanced Photonics, 2019, 1, 1.	6.2	0
71	Multiple-State Thermally Tunable Metasurfaces. , 2020, , .		0
72	Dielectric Huygens Metagrating-Based Refractive Index Sensor. , 2020, , .		0

#	ARTICLE	IF	CITATIONS
73	Optimal Monitoring of Small Polarization Perturbations with Metasurfaces. , 2020, , .		0
74	Valley-selective directional emission enabled by a plasmonic nanoantenna. , 2021, , .		0