

# Alessandro Alabastri

## List of Publications by Year in Descending Order

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**Version:** 2024-04-27

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

72  
papers

2,336  
citations

26  
h-index

47  
g-index

89  
ext. papers

3,017  
ext. citations

10.7  
avg, IF

5.06  
L-index

#	Paper	IF	Citations
72	A 3D Plasmonic Antenna-Reactor for Nanoscale Thermal Hotspots and Gradients. <i>ACS Nano</i> , <b>2021</b> , 15, 8761-8769	16.7	12
71	Disentangling the Temporal Dynamics of Nonthermal Electrons in Photoexcited Gold Nanostructures. <i>Laser and Photonics Reviews</i> , <b>2021</b> , 15, 2100017	8.3	2
70	Nanoporous Metals: From Plasmonic Properties to Applications in Enhanced Spectroscopy and Photocatalysis. <i>ACS Nano</i> , <b>2021</b> , 15, 6038-6060	16.7	38
69	Solar steam generation on scalable ultrathin thermoplasmonic TiN nanocavity arrays. <i>Nano Energy</i> , <b>2021</b> , 83, 105828	17.1	18
68	Three-dimensional printing of complex graphite structures. <i>Carbon</i> , <b>2021</b> , 181, 260-269	10.4	7
67	Utilizing the Broad Electromagnetic Spectrum and Unique Nanoscale Properties for Chemical-Free Water Treatment. <i>Current Opinion in Chemical Engineering</i> , <b>2021</b> , 33, 100709-100709	5.4	0
66	All-Optically Reconfigurable Plasmonic Metagrating for Ultrafast Diffraction Management. <i>Nano Letters</i> , <b>2021</b> , 21, 1345-1351	11.5	7
65	Opto-electronic memristors: Prospects and challenges in neuromorphic computing. <i>Applied Physics Letters</i> , <b>2020</b> , 117, 230502	3.4	9
64	Challenges in Plasmonic Catalysis. <i>ACS Nano</i> , <b>2020</b> ,	16.7	77
63	Photoinduced Temperature Gradients in Sub-Wavelength Plasmonic Structures: The Thermoplasmonics of Nanocones. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 2000568	8.1	5
62	Polarized evanescent waves reveal trochoidal dichroism. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2020</b> , 117, 16143-16148	11.5	8
61	Resonant energy transfer enhances solar thermal desalination. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 968-976	35.4	20
60	Tuning temperature gradients in subwavelength plasmonic nanocones with tilted illumination. <i>Optics Letters</i> , <b>2020</b> , 45, 5472-5475	3	1
59	Galvanic Replacement Reaction as a Route to Prepare Nanoporous Aluminum for UV Plasmonics. <i>Nanomaterials</i> , <b>2020</b> , 10,	5.4	9
58	Transient optical symmetry breaking for ultrafast broadband dichroism in plasmonic metasurfaces. <i>Nature Photonics</i> , <b>2020</b> , 14, 723-727	33.9	21
57	Giant photothermoelectric effect in silicon nanoribbon photodetectors. <i>Light: Science and Applications</i> , <b>2020</b> , 9, 120	16.7	10
56	Controlling Light, Heat, and Vibrations in Plasmonics and Phononics. <i>Advanced Optical Materials</i> , <b>2020</b> , 8, 2001225	8.1	15

55	EDNA through Porous Materials Surface-Enhanced Raman Scattering in a Simple Plasmonic Nanopore. <i>Journal of Physical Chemistry C</i> , <b>2020</b> , 124, 22663-22670	3.8	12
54	Flow-Driven Resonant Energy Systems. <i>Physical Review Applied</i> , <b>2020</b> , 14,	4.3	3
53	Transforming diatomaceous earth into sensing devices by surface modification with gold nanoparticles. <i>Micro and Nano Engineering</i> , <b>2019</b> , 2, 29-34	3.4	4
52	Nanoscale thermal gradients activated by antenna-enhanced molecular absorption in the mid-infrared. <i>Applied Physics Letters</i> , <b>2019</b> , 114, 023105	3.4	1
51	Solar thermal desalination as a nonlinear optical process. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2019</b> , 116, 13182-13187	11.5	48
50	Interband Transitions Are More Efficient Than Plasmonic Excitation in the Ultrafast Melting of Electromagnetically Coupled Au Nanoparticles. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 16943-16950	3.8	15
49	Response to Comment on "Quantifying hot carrier and thermal contributions in plasmonic photocatalysis". <i>Science</i> , <b>2019</b> , 364,	33.3	102
48	Metallic Nanoporous Aluminum Magnesium Alloy for UV-Enhanced Spectroscopy. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 20287-20296	3.8	16
47	Biosensor for Point-of-Care Analysis of Immunoglobulins in Urine by Metal Enhanced Fluorescence from Gold Nanoparticles. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2019</b> , 11, 3753-3762	9.5	32
46	Plasmonic nanoparticle-based epoxy photocuring: A deeper look. <i>Materials Today</i> , <b>2019</b> , 27, 14-20	21.8	8
45	Silica diatom shells tailored with Au nanoparticles enable sensitive analysis of molecules for biological, safety and environment applications. <i>Nanoscale Research Letters</i> , <b>2018</b> , 13, 94	5	15
44	Thermoplasmonic Effect of Surface-Enhanced Infrared Absorption in Vertical Nanoantenna Arrays. <i>Journal of Physical Chemistry C</i> , <b>2018</b> , 122, 13072-13081	3.8	9
43	Plasmonic meta-electrodes allow intracellular recordings at network level on high-density CMOS-multi-electrode arrays. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 965-971	28.7	49
42	Plasmon Controlled Shaping of Metal Nanoparticle Aggregates by Femtosecond Laser-Induced Melting. <i>Journal of Physical Chemistry Letters</i> , <b>2018</b> , 9, 5002-5008	6.4	19
41	Extraordinary Enhancement of Quadrupolar Transitions Using Nanostructured Graphene. <i>ACS Photonics</i> , <b>2018</b> , 5, 3282-3290	6.3	9
40	Exploiting Evanescent Field Polarization for Giant Chiroptical Modulation from Achiral Gold Half-Rings. <i>ACS Nano</i> , <b>2018</b> , 12, 11657-11663	16.7	12
39	Atomic Scale Photodetection Enabled by a Memristive Junction. <i>ACS Nano</i> , <b>2018</b> , 12, 6706-6713	16.7	24
38	Surface enhanced thermo lithography. <i>Microelectronic Engineering</i> , <b>2017</b> , 174, 52-58	2.5	1

37	Nanophotonics-enabled solar membrane distillation for off-grid water purification. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 6936-6941	11.5	227
36	Perovskite Nanopillar Array Based Tandem Solar Cell. <i>ACS Photonics</i> , <b>2017</b> , 4, 2025-2035	6.3	18
35	Plasmon-induced selective carbon dioxide conversion on earth-abundant aluminum-cuprous oxide antenna-reactor nanoparticles. <i>Nature Communications</i> , <b>2017</b> , 8, 27	17.4	220
34	Selective Targeting of Neurons with Inorganic Nanoparticles: Revealing the Crucial Role of Nanoparticle Surface Charge. <i>ACS Nano</i> , <b>2017</b> , 11, 6630-6640	16.7	57
33	Metal enhanced fluorescence on super-hydrophobic clusters of gold nanoparticles. <i>Microelectronic Engineering</i> , <b>2017</b> , 175, 7-11	2.5	12
32	Controlling the Heat Dissipation in Temperature-Matched Plasmonic Nanostructures. <i>Nano Letters</i> , <b>2017</b> , 17, 5472-5480	11.5	19
31	Quantifying Remote Heating from Propagating Surface Plasmon Polaritons. <i>Nano Letters</i> , <b>2017</b> , 17, 5646-5652	11.5	10
30	Nanogapped Au Antennas for Ultrasensitive Surface-Enhanced Infrared Absorption Spectroscopy. <i>Nano Letters</i> , <b>2017</b> , 17, 5768-5774	11.5	131
29	How To Identify Plasmons from the Optical Response of Nanostructures. <i>ACS Nano</i> , <b>2017</b> , 11, 7321-7335	16.7	54
28	Combining Solar Steam Processing and Solar Distillation for Fully Off-Grid Production of Cellulosic Bioethanol. <i>ACS Energy Letters</i> , <b>2017</b> , 2, 8-13	20.1	52
27	Broadband absorption enhancement in plasmonic nanoshells-based ultrathin microcrystalline-Si solar cells. <i>Scientific Reports</i> , <b>2016</b> , 6, 24539	4.9	28
26	Dynamics of Strong Coupling between J-Aggregates and Surface Plasmon Polaritons in Subwavelength Hole Arrays. <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 6198-6205	15.6	30
25	Plasmonic Heating in Au Nanowires at Low Temperatures: The Role of Thermal Boundary Resistance. <i>ACS Nano</i> , <b>2016</b> , 10, 6972-9	16.7	28
24	Extraordinary Light-Induced Local Angular Momentum near Metallic Nanoparticles. <i>ACS Nano</i> , <b>2016</b> , 10, 4835-46	16.7	25
23	Tuning the Composition of Alloy Nanoparticles Through Laser Mixing: The Role of Surface Plasmon Resonance. <i>Journal of Physical Chemistry C</i> , <b>2016</b> , 120, 12810-12818	3.8	29
22	Strong Coupling: Dynamics of Strong Coupling between J-Aggregates and Surface Plasmon Polaritons in Subwavelength Hole Arrays (Adv. Funct. Mater. 34/2016). <i>Advanced Functional Materials</i> , <b>2016</b> , 26, 6197-6197	15.6	1
21	High Temperature Nanoplasmonics: The Key Role of Nonlinear Effects. <i>ACS Photonics</i> , <b>2015</b> , 2, 115-120	6.3	37
20	Light-trapping in photon enhanced thermionic emitters. <i>Optics Express</i> , <b>2015</b> , 23, A1220-35	3.3	12

19	Direct Synthesis of Carbon-Doped TiO <sub>2</sub> -Bronze Nanowires as Anode Materials for High Performance Lithium-Ion Batteries. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2015</b> , 7, 25139-46	9.5	58
18	3D vertical nanostructures for enhanced infrared plasmonics. <i>Scientific Reports</i> , <b>2015</b> , 5, 16436	4.9	40
17	Pushing the high-energy limit of plasmonics. <i>ACS Nano</i> , <b>2014</b> , 8, 9239-47	16.7	46
16	Plasmonic Nanostructures for Nanoscale Energy Delivery and Biosensing: Design Fabrication and Characterization <b>2014</b> , 451-502		
15	Direct determination of the resonance properties of metallic conical nanoantennas. <i>Optics Letters</i> , <b>2014</b> , 39, 571-3	3	12
14	Plasmon based biosensor for distinguishing different peptides mutation states. <i>Scientific Reports</i> , <b>2013</b> , 3, 1792	4.9	50
13	Hot-electron nanoscopy using adiabatic compression of surface plasmons. <i>Nature Nanotechnology</i> , <b>2013</b> , 8, 845-52	28.7	205
12	Interplay between electric and magnetic effect in adiabatic polaritonic systems. <i>Optics Express</i> , <b>2013</b> , 21, 7538-48	3.3	10
11	Molding of Plasmonic Resonances in Metallic Nanostructures: Dependence of the Non-Linear Electric Permittivity on System Size and Temperature. <i>Materials</i> , <b>2013</b> , 6, 4879-4910	3.5	89
10	Increased performance in genetic manipulation by modeling the dielectric properties of the rodent brain. <i>Annual International Conference of the IEEE Engineering in Medicine and Biology Society IEEE Engineering in Medicine and Biology Society Annual International Conference</i> , <b>2013</b> , 2013, 1615-8	0.9	3
9	Plasmonics and Super-Hydrophobicity: A New Class of Nano-Bio-Devices. <i>Challenges and Advances in Computational Chemistry and Physics</i> , <b>2013</b> , 501-524	0.7	
8	Optical phonon modes in ordered core-shell CdSe/CdS nanorod arrays. <i>Physical Review B</i> , <b>2012</b> , 85,	3.3	16
7	Optimization of surface plasmon polariton generation in a nanocone through linearly polarized laser beams. <i>Microelectronic Engineering</i> , <b>2012</b> , 97, 204-207	2.5	5
6	Fully analytical description of adiabatic compression in dissipative polaritonic structures. <i>Physical Review B</i> , <b>2012</b> , 86,	3.3	32
5	High-performance and site-directed in utero electroporation by a triple-electrode probe. <i>Nature Communications</i> , <b>2012</b> , 3, 960	17.4	85
4	Surface plasmon polariton compression through radially and linearly polarized source. <i>Optics Letters</i> , <b>2012</b> , 37, 545-7	3	42
3	Enhanced broadband optical transmission in metallized woodpiles. <i>Applied Physics A: Materials Science and Processing</i> , <b>2011</b> , 103, 749-753	2.6	6
2	High-Frequency Light Rectification by Nanoscale Plasmonic Conical Antenna in Point-Contact-Insulator-Metal Architecture. <i>Advanced Energy Materials</i> , 2103785	21.8	2

- 1 All-Optical Reconfiguration of Ultrafast Dichroism in Gold Metasurfaces. *Advanced Optical Materials*, 2108549 ○