Alessandro Alabastri

List of Publications by Year
in descending order

88	3,576	136885 32	138417 58
papers	citations	h-index	g-index

89	89	89	5802
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nanophotonics-enabled solar membrane distillation for off-grid water purification. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6936-6941.	3.3	348
2	Plasmon-induced selective carbon dioxide conversion on earth-abundant aluminum-cuprous oxide antenna-reactor nanoparticles. Nature Communications, 2017, 8, 27.	5.8	308
3	Hot-electron nanoscopy using adiabatic compression of surface plasmons. Nature Nanotechnology, 2013, 8, 845-852.	15.6	239
4	Challenges in Plasmonic Catalysis. ACS Nano, 2020, 14, 16202-16219.	7.3	203
5	Nanogapped Au Antennas for Ultrasensitive Surface-Enhanced Infrared Absorption Spectroscopy. Nano Letters, 2017, 17, 5768-5774.	4.5	187
6	Response to Comment on â€œQuantifying hot carrier and thermal contributions in plasmonic photocatalysisâ€. Science, 2019, 364, .	6.0	131
7	Molding of Plasmonic Resonances in Metallic Nanostructures: Dependence of the Non-Linear Electric Permittivity on System Size and Temperature. Materials, 2013, 6, 4879-4910.	1.3	123
8	Nanoporous Metals: From Plasmonic Properties to Applications in Enhanced Spectroscopy and Photocatalysis. ACS Nano, 2021, 15, 6038-6060.	7.3	120
9	High-performance and site-directed in utero electroporation by a triple-electrode probe. Nature Communications, 2012, 3, 960.	5.8	110
10	Selective Targeting of Neurons with Inorganic Nanoparticles: Revealing the Crucial Role of Nanoparticle Surface Charge. ACS Nano, 2017, 11, 6630-6640.	7.3	85
11	Plasmonic meta-electrodes allow intracellular recordings at network level on high-density CMOS-multi-electrode arrays. Nature Nanotechnology, 2018, 13, 965-971.	15.6	78
12	Solar thermal desalination as a nonlinear optical process. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 13182-13187.	3.3	74
13	How To Identify Plasmons from the Optical Response of Nanostructures. ACS Nano, 2017, 11, 7321-7335.	7.3	72
14	Plasmon based biosensor for distinguishing different peptides mutation states. Scientific Reports, 2013, 3, 1792.	1.6	68
15	Direct Synthesis of Carbon-Doped TiO₂â€“Bronze Nanowires as Anode Materials for High Performance Lithium-Ion Batteries. ACS Applied Materials & Interfaces, 2015, 7, 25139-25146.	4.0	65
16	Combining Solar Steam Processing and Solar Distillation for Fully Off-Grid Production of Cellulosic Bioethanol. ACS Energy Letters, 2017, 2, 8-13.	8.8	61
17	Pushing the High-Energy Limit of Plasmonics. ACS Nano, 2014, 8, 9239-9247.	7.3	57
18	Solar steam generation on scalable ultrathin thermoplasmonic TiN nanocavity arrays. Nano Energy, 2021, 83, 105828.	8.2	56

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19	3D vertical nanostructures for enhanced infrared plasmonics. Scientific Reports, 2015, 5, 16436.	1.6	53
20	High Temperature Nanoplasmonics: The Key Role of Nonlinear Effects. ACS Photonics, 2015, 2, 115-120.	3.2	53
21	Surface plasmon polariton compression through radially and linearly polarized source. Optics Letters, 2012, 37, 545.	1.7	51
22	Transient optical symmetry breaking for ultrafast broadband dichroism in plasmonic metasurfaces. Nature Photonics, 2020, 14, 723-727.	15.6	48
23	Controlling Light, Heat, and Vibrations in Plasmonics and Phononics. Advanced Optical Materials, 2020, 8, 2001225.	3.6	46
24	Biosensor for Point-of-Care Analysis of Immunoglobulins in Urine by Metal Enhanced Fluorescence from Gold Nanoparticles. ACS Applied Materials & Interfaces, 2019, 11, 3753-3762.	4.0	44
25	Dynamics of Strong Coupling between Jâ€Aggregates and Surface Plasmon Polaritons in Subwavelength Hole Arrays. Advanced Functional Materials, 2016, 26, 6198-6205.	7.8	40
26	Opto-electronic memristors: Prospects and challenges in neuromorphic computing. Applied Physics Letters, 2020, 117, .	1.5	39
27	Fully analytical description of adiabatic compression in dissipative polaritonic structures. Physical Review B, 2012, 86, .	1.1	38
28	Broadband absorption enhancement in plasmonic nanoshells-based ultrathin microcrystalline-Si solar cells. Scientific Reports, 2016, 6, 24539.	1.6	38
29	Tuning the Composition of Alloy Nanoparticles Through Laser Mixing: The Role of Surface Plasmon Resonance. Journal of Physical Chemistry C, 2016, 120, 12810-12818.	1.5	37
30	Atomic Scale Photodetection Enabled by a Memristive Junction. ACS Nano, 2018, 12, 6706-6713.	7.3	37
31	Plasmonic Heating in Au Nanowires at Low Temperatures: The Role of Thermal Boundary Resistance. ACS Nano, 2016, 10, 6972-6979.	7.3	34
32	Extraordinary Light-Induced Local Angular Momentum near Metallic Nanoparticles. ACS Nano, 2016, 10, 4835-4846.	7.3	34
33	Resonant energy transfer enhances solar thermal desalination. Energy and Environmental Science, 2020, 13, 968-976.	15.6	33
34	Î»-DNA through Porous Materialsâ€”Surface-Enhanced Raman Scattering in a Simple Plasmonic Nanopore. Journal of Physical Chemistry C, 2020, 124, 22663-22670.	1.5	28
35	A 3D Plasmonic Antenna-Reactor for Nanoscale Thermal Hotspots and Gradients. ACS Nano, 2021, 15, 8761-8769.	7.3	28
36	Controlling the Heat Dissipation in Temperature-Matched Plasmonic Nanostructures. Nano Letters, 2017, 17, 5472-5480.	4.5	27

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37	Metallic Nanoporous Aluminumâ€“Magnesium Alloy for UV-Enhanced Spectroscopy. Journal of Physical Chemistry C, 2019, 123, 20287-20296.	1.5	27
38	Perovskite Nanopillar Array Based Tandem Solar Cell. ACS Photonics, 2017, 4, 2025-2035.	3.2	24
39	Giant photothermoelectric effect in silicon nanoribbon photodetectors. Light: Science and Applications, 2020, 9, 120.	7.7	24
40	Silica diatom shells tailored with Au nanoparticles enable sensitive analysis of molecules for biological, safety and environment applications. Nanoscale Research Letters, 2018, 13, 94.	3.1	23
41	Challenges and prospects of plasmonic metasurfaces for photothermal catalysis. Nanophotonics, 2022, 11, 3035-3056.	2.9	22
42	Exploiting Evanescent Field Polarization for Giant Chiroptical Modulation from Achiral Gold Half-Rings. ACS Nano, 2018, 12, 11657-11663.	7.3	20
43	Plasmon Controlled Shaping of Metal Nanoparticle Aggregates by Femtosecond Laser-Induced Melting. Journal of Physical Chemistry Letters, 2018, 9, 5002-5008.	2.1	20
44	Galvanic Replacement Reaction as a Route to Prepare Nanoporous Aluminum for UV Plasmonics. Nanomaterials, 2020, 10, 102.	1.9	20
45	Interplay between electric and magnetic effect in adiabatic polaritonic systems. Optics Express, 2013, 21, 7538.	1.7	19
46	Interband Transitions Are More Efficient Than Plasmonic Excitation in the Ultrafast Melting of Electromagnetically Coupled Au Nanoparticles. Journal of Physical Chemistry C, 2019, 123, 16943-16950.	1.5	19
47	All-Optically Reconfigurable Plasmonic Metagrating for Ultrafast Diffraction Management. Nano Letters, 2021, 21, 1345-1351.	4.5	19
48	Thermoplasmonic Effect of Surface-Enhanced Infrared Absorption in Vertical Nanoantenna Arrays. Journal of Physical Chemistry C, 2018, 122, 13072-13081.	1.5	18
49	Optical phonon modes in ordered core-shell CdSe/CdS nanorod arrays. Physical Review B, 2012, 85, .	1.1	16
50	Metal enhanced fluorescence on super-hydrophobic clusters of gold nanoparticles. Microelectronic Engineering, 2017, 175, 7-11.	1.1	16
51	Direct determination of the resonance properties of metallic conical nanoantennas. Optics Letters, 2014, 39, 571.	1.7	15
52	Extraordinary Enhancement of Quadrupolar Transitions Using Nanostructured Graphene. ACS Photonics, 2018, 5, 3282-3290.	3.2	15
53	Light-trapping in photon enhanced thermionic emitters. Optics Express, 2015, 23, A1220.	1.7	14
54	Photoinduced Temperature Gradients in Subâ€Wavelength Plasmonic Structures: The Thermoplasmonics of Nanocones. Advanced Optical Materials, 2020, 8, 2000568.	3.6	14

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55	Quantifying Remote Heating from Propagating Surface Plasmon Polaritons. Nano Letters, 2017, 17, 5646-5652.	4.5	13
56	Polarized evanescent waves reveal trochoidal dichroism. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 16143-16148.	3.3	12
57	Plasmonic nanoparticle-based epoxy photocuring: A deeper look. Materials Today, 2019, 27, 14-20.	8.3	11
58	Disentangling the Temporal Dynamics of Nonthermal Electrons in Photoexcited Gold Nanostructures. Laser and Photonics Reviews, 2021, 15, 2100017.	4.4	10
59	Three-dimensional printing of complex graphite structures. Carbon, 2021, 181, 260-269.	5.4	10
60	Highâ€Frequency Light Rectification by Nanoscale Plasmonic Conical Antenna in Pointâ€Contactâ€Insulatorâ€Metal Architecture. Advanced Energy Materials, 0, , 2103785.	10.2	9
61	Optimization of surface plasmon polariton generation in a nanocone through linearly polarized laser beams. Microelectronic Engineering, 2012, 97, 204-207.	1.1	8
62	Reply to: Distinguishing thermal from non-thermal contributions to plasmonic hydrodefluorination. Nature Catalysis, 2022, 5, 247-250.	16.1	7
63	Enhanced broadband optical transmission in metallized woodpiles. Applied Physics A: Materials Science and Processing, 2011, 103, 749-753.	1.1	6
64	Tuning temperature gradients in subwavelength plasmonic nanocones with tilted illumination. Optics Letters, 2020, 45, 5472.	1.7	6
65	Allâ€Optical Reconfiguration of Ultrafast Dichroism in Gold Metasurfaces. Advanced Optical Materials, 2022, 10, .	3.6	6
66	Controlling excitons in the quantum tunneling regime in a hybrid plasmonic/2D semiconductor interface. Applied Physics Reviews, 2022, 9, 031401.	5.5	6
67	Transforming diatomaceous earth into sensing devices by surface modification with gold nanoparticles. Micro and Nano Engineering, 2019, 2, 29-34.	1.4	5
68	Nanoscale thermal gradients activated by antenna-enhanced molecular absorption in the mid-infrared. Applied Physics Letters, 2019, 114, 023105.	1.5	5
69	Hot carrier spatio-temporal inhomogeneities in ultrafast nanophotonics. New Journal of Physics, 2022, 24, 045001.	1.2	5
70	Flow-Driven Resonant Energy Systems. Physical Review Applied, 2020, 14, .	1.5	4
71	Increased performance in genetic manipulation by modeling the dielectric properties of the rodent brain. , 2013, 2013, 1615-8.		3
72	Utilizing the broad electromagnetic spectrum and unique nanoscale properties for chemical-free water treatment. Current Opinion in Chemical Engineering, 2021, 33, 100709.	3.8	3

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73	Strong Coupling: Dynamics of Strong Coupling between J-Aggregates and Surface Plasmon Polaritons in Subwavelength Hole Arrays (Adv. Funct. Mater. 34/2016). Advanced Functional Materials, 2016, 26, 6197-6197.	7.8	1
74	Surface enhanced thermo lithography. Microelectronic Engineering, 2017, 174, 52-58.	1.1	1
75	Plasmonics and Super-Hydrophobicity: A New Class of Nano-Bio-Devices. Challenges and Advances in Computational Chemistry and Physics, 2013, , 501-524.	0.6	1
76	Heat and Temperature Localization via Fabryâ€“PÃ©rot Resonances at the Tip of a Nanofocusing Cone. Advanced Optical Materials, 0, , 2200746.	3.6	1
77	Bulk metamaterials: Design, fabrication and characterization. , 2009, , .		0
78	Heating processes in plasmonic resonances: a non-linear temperature dependent permittivity model. Proceedings of SPIE, 2014, , .	0.8	0
79	The magic of nanoplasmonics: from superhydrophobic and 3D suspended devices for SERS/TERS-like applications to hot-electrons based nanoscopy. , 2014, , .		0
80	Plasmonic Nanostructures for Nanoscale Energy Delivery and Biosensing: Design Fabrication and Characterization. , 2014, , 451-502.		0
81	A Photonic Crystal Explanation For a Butterfly Wing Color. , 2015, , .		0
82	Temperature modulated nanoplasmonics. , 2016, , .		0
83	Beyond the visible limit: plasmonics at the UV (Conference Presentation). , 2016, , .		0
84	High temperature nanoplasmonics. , 2016, , .		0
85	Extraordinary local angular momentum near metallic nanoparticles (Withdrawal Notice). , 2016, , .		0
86	Thermo-plasmonics: playing with temperature at the nanoscale (Conference Presentation). , 2017, , .		0
87	High Temperature Plasmonics: Optical Effects on Different Nanostructures. , 2015, , .		0
88	Photoinduced transient symmetry breaking in plasmonic structures for ultrafast nanophotonics. , 2022, , .		0