Tomasz Antosiewicz

List of Publications by Year
in descending order

120	4,191	147786 31	114455 63
papers	citations	h-index	g-index

121	121	121	4391
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Ultrastrong Coupling of a Single Molecule to a Plasmonic Nanocavity: A First-Principles Study. ACS Photonics, 2022, 9, 1065-1077.	6.6	18
2	Optical Constants of Several Multilayer Transition Metal Dichalcogenides Measured by Spectroscopic Ellipsometry in the 300â€“1700 nm Range: High Index, Anisotropy, and Hyperbolicity. ACS Photonics, 2022, 9, 2398-2407.	6.6	47
3	Abundance of cavity-free polaritonic states in resonant materials and nanostructures. Journal of Chemical Physics, 2021, 154, 024701.	3.0	33
4	Dipolar coupling of nanoparticle-molecule assemblies: An efficient approach for studying strong coupling. Journal of Chemical Physics, 2021, 154, 094109.	3.0	9
5	Polarization-dependent mode coupling in hyperbolic nanospheres. Nanophotonics, 2021, 10, 2737-2751.	6.0	3
6	Electromagnetic Coupling in Optical Devices Based on Random Arrays of Dielectric Nanoresonators. Journal of Physical Chemistry C, 2020, 124, 896-905.	3.1	11
7	Multipole analysis of substrate-supported dielectric nanoresonator metasurfaces via the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi>T</mml:mi></mml:math> -matrix method. Physical Review B, 2020, 102, .	3.2	12
8	Strong Transient Flows Generated by Thermoplasmonic Bubble Nucleation. ACS Nano, 2020, 14, 17468-17475.	14.6	8
9	Ultrastrong coupling between nanoparticle plasmons and cavity photons at ambient conditions. Nature Communications, 2020, 11, 2715.	12.8	67
10	Plasmonic Metasurface for Spatially Resolved Optical Sensing in Three Dimensions. ACS Nano, 2020, 14, 2345-2353.	14.6	55
11	Lowâ€Loss Hybrid Highâ€Index Dielectric Particles on a Mirror for Extreme Light Confinement. Advanced Optical Materials, 2020, 8, 1901820.	7.3	20
12	Strong coupling as an interplay of quantum emitter hybridization with plasmonic dark and bright modes. Physical Review Research, 2020, 2, .	3.6	12
13	Effective dipolar polarizability of amorphous arrays of size-dispersed nanoparticles. Optics Letters, 2020, 45, 3220.	3.3	6
14	Strong plasmon-molecule coupling at the nanoscale revealed by first-principles modeling. Nature Communications, 2019, 10, 3336.	12.8	67
15	Ultrafast Modulation of Thermoplasmonic Nanobubbles in Water. Nano Letters, 2019, 19, 8294-8302.	9.1	13
16	Correlative Dark-Field and Photoluminescence Spectroscopy of Individual Plasmonâ€“Molecule Hybrid Nanostructures in a Strong Coupling Regime. ACS Photonics, 2019, 6, 2570-2576.	6.6	33
17	Electromagnetic Energy Distribution in Resonant Quasi Porous Silicon Nanostructures. ACS Photonics, 2019, 6, 1706-1714.	6.6	5
18	Plasmonic versus All-Dielectric Nanoantennas for Refractometric Sensing: A Direct Comparison. ACS Photonics, 2019, 6, 1556-1564.	6.6	51

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19	Metalâ€“polymer hybrid nanomaterials for plasmonic ultrafast hydrogen detection. Nature Materials, 2019, 18, 489-495.	27.5	227
20	Heterodimers for in Situ Plasmonic Spectroscopy: Cu Nanoparticle Oxidation Kinetics, Kirkendall Effect, and Compensation in the Arrhenius Parameters. Journal of Physical Chemistry C, 2019, 123, 6284-6293.	3.1	18
21	Resolving single Cu nanoparticle oxidation and Kirkendall void formation with in situ plasmonic nanospectroscopy and electrodynamic simulations. Nanoscale, 2019, 11, 20725-20733.	5.6	34
22	Surface-enhanced Raman scattering in graphene deposited on Al Ga1â^'N/GaN axial heterostructure nanowires. Applied Surface Science, 2019, 475, 559-564.	6.1	7
23	Collective Strong Light-Matter Coupling in Hierarchical Microcavity-Plasmon-Exciton Systems. Nano Letters, 2019, 19, 189-196.	9.1	92
24	A nanofabricated plasmonic coreâ€“shell-nanoparticle library. Nanoscale, 2019, 11, 21207-21217.	5.6	9
25	Electric and magnetic dipole and quadrupole coupling in an effective medium description of amorphous arrays of optical nanoresonators. , 2019, , .		1
26	Subwavelength confinement of light in hyperbolic metamaterials with dielectric nanoparticle coupling. , 2019, , .		1
27	Observation of Tunable Charged Exciton Polaritons in Hybrid Monolayer WS₂â^'Plasmonic Nanoantenna System. Nano Letters, 2018, 18, 1777-1785.	9.1	200
28	Quantum-size effects in visible defect photoluminescence of colloidal ZnO quantum dots: a theoretical analysis. Nanoscale, 2018, 10, 7016-7025.	5.6	5
29	Novel Nanostructures and Materials for Strong Lightâ€“Matter Interactions. ACS Photonics, 2018, 5, 24-42.	6.6	365
30	Antibodyâ€“Antigen Interaction Dynamics Revealed by Analysis of Single-Molecule Equilibrium Fluctuations on Individual Plasmonic Nanoparticle Biosensors. ACS Nano, 2018, 12, 9958-9965.	14.6	34
31	Strong Lightâ€“Matter Coupling between Plasmons in Individual Gold Bi-pyramids and Excitons in Mono- and Multilayer WSe₂. Nano Letters, 2018, 18, 5938-5945.	9.1	131
32	Suppression of photo-oxidation of organic chromophores by strong coupling to plasmonic nanoantennas. Science Advances, 2018, 4, eaas9552.	10.3	199
33	Effective Optical Properties of Inhomogeneously Distributed Nanoobjects in Strong Field Gradients of Nanoplasmonic Sensors. Plasmonics, 2018, 13, 2423-2434.	3.4	5
34	Infrared Absorption and Hot Electron Production in Low-Electron-Density Nanospheres: A Look at Real Systems. Journal of Physical Chemistry Letters, 2017, 8, 524-530.	4.6	4
35	Plasmonic Nanospectroscopy for Thermal Analysis of Organic Semiconductor Thin Films. Analytical Chemistry, 2017, 89, 2575-2582.	6.5	29
36	Observation of Mode Splitting in Photoluminescence of Individual Plasmonic Nanoparticles Strongly Coupled to Molecular Excitons. Nano Letters, 2017, 17, 551-558.	9.1	167

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37	Topographically Flat Nanoplasmonic Sensor Chips for Biosensing and Materials Science. ACS Sensors, 2017, 2, 119-127.	7.8	13
38	Grain boundary mediated hydriding phase transformations in individual polycrystalline metal nanoparticles. Nature Communications, 2017, 8, 1084.	12.8	49
39	Superior LSPR substrates based on electromagnetic decoupling for on-a-chip high-throughput label-free biosensing. Light: Science and Applications, 2017, 6, e17042-e17042.	16.6	57
40	Wavevector-Selective Nonlinear Plasmonic Metasurfaces. Nano Letters, 2017, 17, 5258-5263.	9.1	20
41	Hybrid dielectric waveguide spectroscopy of individual plasmonic nanoparticles. AIP Advances, 2017, 7, 075207.	1.3	7
42	Gradient effective medium model for inhomogenous nanoparticle layers. , 2017, , .		0
43	Metasurfaces and Colloidal Suspensions Composed of 3D Chiral Si Nanoresonators. Advanced Materials, 2017, 29, 1701352.	21.0	39
44	A Multiscale Approach to Modeling Plasmonic Nanorod Biosensors. Journal of Physical Chemistry C, 2016, 120, 20692-20701.	3.1	13
45	Sensing (un)binding events via surface plasmons: effects of resonator geometry. , 2016, , .		0
46	Role of material loss and mode volume of plasmonic nanocavities for strong plasmon-exciton interactions. Optics Express, 2016, 24, 20373.	3.4	54
47	Single Particle Nanoplasmonic Sensing in Individual Nanofluidic Channels. Nano Letters, 2016, 16, 7857-7864.	9.1	35
48	Directional Light Extinction and Emission in a Metasurface of Tilted Plasmonic Nanopillars. Nano Letters, 2016, 16, 98-104.	9.1	28
49	Evaluating Conditions for Strong Coupling between Nanoparticle Plasmons and Organic Dyes Using Scattering and Absorption Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 20588-20596.	3.1	58
50	Diffuse Surface Scattering and Quantum Size Effects in the Surface Plasmon Resonances of Low-Carrier-Density Nanocrystals. Journal of Physical Chemistry C, 2016, 120, 5074-5082.	3.1	12
51	Catalysis: Plasmonâ€Assisted Indirect Light Absorption Engineering in Small Transition Metal Catalyst Nanoparticles (Advanced Optical Materials 11/2015). Advanced Optical Materials, 2015, 3, 1654-1654.	7.3	0
52	Plasmonâ€Assisted Indirect Light Absorption Engineering in Small Transition Metal Catalyst Nanoparticles. Advanced Optical Materials, 2015, 3, 1591-1599.	7.3	21
53	Arrays of elliptical Fe(001) nanoparticles: Magnetization reversal, dipolar interactions, and effects of finite array sizes. Physical Review B, 2015, 92, .	3.2	5
54	Multilayer metamaterial absorbers inspired by perfectly matched layers. Optical and Quantum Electronics, 2015, 47, 89-97.	3.3	9

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55	Optical activity of catalytic elements of hetero-metallic nanostructures. , 2015, , .		0
56	Enhancement of light absorption in polyazomethines due to plasmon excitation on randomly distributed metal nanoparticles. Proceedings of SPIE, 2015, , .	0.8	1
57	Diffuse Surface Scattering in the Plasmonic Resonances of Ultralow Electron Density Nanospheres. Journal of Physical Chemistry Letters, 2015, 6, 1847-1853.	4.6	12
58	Realizing Strong Light-Matter Interactions between Single-Nanoparticle Plasmons and Molecular Excitons at Ambient Conditions. Physical Review Letters, 2015, 114, 157401.	7.8	419
59	Perfectly matched layer based multilayer absorbers. Proceedings of SPIE, 2015, , .	0.8	0
60	Ultimate Limit of Light Extinction by Nanophotonic Structures. Nano Letters, 2015, 15, 7633-7638.	9.1	25
61	Hydride formation thermodynamics and hysteresis in individual Pd nanocrystals withÂdifferent size and shape. Nature Materials, 2015, 14, 1236-1244.	27.5	160
62	Localized Surface Plasmon Decay Pathways in Disordered Two-Dimensional Nanoparticle Arrays. ACS Photonics, 2015, 2, 1732-1738.	6.6	23
63	Optical enhancement of plasmonic activity of catalytic metal nanoparticles. RSC Advances, 2015, 5, 6378-6384.	3.6	12
64	In Situ Plasmonic Sensing of Platinum Model Catalyst Sintering on Different Oxide Supports and in O₂ and NO₂ Atmospheres with Different Concentrations. ACS Catalysis, 2015, 5, 426-432.	11.2	18
65	Plasmonic glasses: Optical properties of amorphous metal-dielectric composites. Optics Express, 2014, 22, 2031.	3.4	23
66	Surface scattering contribution to the plasmon width in embedded Ag nanospheres. Optics Express, 2014, 22, 24994.	3.4	19
67	On the optical properties of plasmonic glasses. , 2014, , .		0
68	Plasmonâ€“Exciton Interactions in a Coreâ€“Shell Geometry: From Enhanced Absorption to Strong Coupling. ACS Photonics, 2014, 1, 454-463.	6.6	221
69	Quasi-isotropic Surface Plasmon Polariton Generation through Near-Field Coupling to a Penrose Pattern of Silver Nanoparticles. ACS Nano, 2014, 8, 9286-9294.	14.6	8
70	Single-Particle Plasmon Sensing of Discrete Molecular Events: Binding Position versus Signal Variations for Different Sensor Geometries. Journal of Physical Chemistry C, 2014, 118, 6980-6988.	3.1	22
71	Layered and core-shell uniaxial absorbers. , 2014, , .		0
72	Layered and core-shell uniaxial absorbers. , 2014, , .		0

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73	Plasmon-Enhanced Enzyme-Linked Immunosorbent Assay on Large Arrays of Individual Particles Made by Electron Beam Lithography. ACS Nano, 2013, 7, 8824-8832.	14.6	33
74	On the mechanism for nanoplasmonic enhancement of photon to electron conversion in nanoparticle sensitized hematite films. Physical Chemistry Chemical Physics, 2013, 15, 4947.	2.8	28
75	Competition between surface screening and size quantization for surface plasmons in nanoparticles. New Journal of Physics, 2013, 15, 083044.	2.9	85
76	Approaching the strong coupling limit in single plasmonic nanorods interacting with J-aggregates. Scientific Reports, 2013, 3, 3074.	3.3	210
77	A simple model for the resonance shift of localized plasmons due to dielectric particle adhesion. Optics Express, 2012, 20, 524.	3.4	28
78	Fabrication of corrugated Ge-doped silica fibers. Optics Express, 2012, 20, 14508.	3.4	1
79	Plasmonic concentrator of magnetic field of light. Journal of Applied Physics, 2012, 112, 074304.	2.5	4
80	Concentrator of magnetic field of light. , 2012, , .		0
81	Oscillatory Optical Response of an Amorphous Two-Dimensional Array of Gold Nanoparticles. Physical Review Letters, 2012, 109, 247401.	7.8	40
82	Plasmonic lenses with long focal lengths. , 2012, , .		0
83	Absorption Enhancement in Lossy Transition Metal Elements of Plasmonic Nanosandwiches. Journal of Physical Chemistry C, 2012, 116, 20522-20529.	3.1	25
84	Optical Absorption Engineering in Stacked Plasmonic Auâ€“SiO₂â€“Pd Nanoantennas. Nano Letters, 2012, 12, 4784-4790.	9.1	48
85	Two-dimensional point spread matrix of layered metalâ€“dielectric imaging elements. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2011, 28, 111.	1.5	17
86	Magnetic probe for material characterization at optical frequencies. Proceedings of SPIE, 2011, , .	0.8	1
87	Single-layer metal nanolenses with tight foci in far-field. Applied Physics A: Materials Science and Processing, 2011, 103, 821-825.	2.3	2
88	Performance of Scanning Near-Field Optical Microscope Probes with Single Groove and Various Metal Coatings. Plasmonics, 2011, 6, 11-18.	3.4	21
89	Preparation of high energy throughput SNOM probes. , 2011, , .		0
90	Bi-metal coated aperture SNOM probes. Proceedings of SPIE, 2011, , .	0.8	0

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91	Optimization of transmission and focusing properties of plasmonic nanolenses. , 2011, , .		0
92	Fabrication of corrugated probes for scanning near-field optical microscopy. , 2011, , .		1
93	Plasmonic nanolenses made of noble metals focusing into far-field. , 2010, , .		1
94	Performance of SNOM probes with one groove at core: cladding interface. Proceedings of SPIE, 2010, , .	0.8	0
95	Optimisation of a plasmonic nanolens: increase of transmission and focal length. , 2010, , .		0
96	Magnetic field concentrator for probing optical magnetic metamaterials. Optics Express, 2010, 18, 25906.	3.4	17
97	Focusing Radially Polarized Light by a Concentrically Corrugated Silver Film without a Hole. Physical Review Letters, 2009, 102, 183902.	7.8	68
98	Dielectric-metal-dielectric nanotip for SNOM. Proceedings of SPIE, 2009, , .	0.8	1
99	Super-resolving metallo-dielectric flat lens. Proceedings of SPIE, 2009, , .	0.8	0
100	Metal nanolens transforming far-field into far-field. , 2009, , .		0
101	Nanofocusing of radially polarized light with dielectric-metal-dielectric probe. Optics Express, 2009, 17, 9191.	3.4	33
102	Three filters for visualization of phase objects with large variations of phase gradients. Applied Optics, 2009, 48, 1143.	2.1	3
103	Superfocusing on a dielectric-metal-dielectric apertureless scanning near-field optical microscope probe. , 2009, , .		2
104	Focusing of radially polarized light with corrugated silver nanolayer. , 2009, , .		1
105	Corrugated SNOM probe with enhanced energy throughput. Opto-electronics Review, 2008, 16, .	2.4	16
106	High resolution SNOM probes. Proceedings of SPIE, 2008, , .	0.8	0
107	Enhanced energy throughput in corrugated tapered metal-coated SNOM probes. , 2008, , .		3
108	On SNOM Resolution Improvement. , 2008, , 217-235.		4

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109	<title>Beam shaping with nanooptical devices</title>. Proceedings of SPIE, 2008, , .	0.8	3
110	Description of nearâ€“ and farâ€“field light emitted from a metalâ€“coated tapered fiber tip. Optics Express, 2007, 15, 7845.	3.4	30
111	Corrugated metalâ€“coated tapered tip for scanning nearâ€“field optical microscope. Optics Express, 2007, 15, 10920.	3.4	53
112	Plasmon Waveguides on Silver Nanoplates. , 2006, , .		0
113	Optimization of optical transmittance of a layered metamaterial on active pairs of nanowires. Optics Express, 2006, 14, 3389.	3.4	3
114	<title>Numerical investigation of energy transport along chains of silver nanorods and nanoplates</title>. , 2006, , .		0
115	Plasmon waveguides on silver nanoelements. , 2006, 6195, 227.		0
116	A review of size and geometrical factors influencing resonant frequencies in metamaterials. Opto-electronics Review, 2006, 14, .	2.4	12
117	Energy transport in plasmon waveguides on chains of metal nanoplates. Opto-electronics Review, 2006, 14, .	2.4	14
118	Optical Properties of Layered Metamaterial Composed of Pairs of Nanowires. , 2006, , .		0
119	<title>Metamaterials: composite materials with unnatural electromagnetic properties</title>. , 2005, , .		0
120	Simulation of resonant behavior and negative refraction of metal nanowire composites. , 2005, , .		1