Alexander V Kildishev

List of Publications by Year
in descending order

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369 papers	25,098 citations	10373 72 h-index	6643 156 g-index
375 all docs	375 docs citations	375 times ranked	15715 citing authors

#	Article	IF	Citations
1	Planar Photonics with Metasurfaces. Science, 2013, 339, 1232009.	6.0	2,352
2	Optical cloaking with metamaterials. Nature Photonics, 2007, 1, 224-227.	15.6	1,887
3	Negative index of refraction in optical metamaterials. Optics Letters, 2005, 30, 3356.	1.7	1,536
4	Broadband Light Bending with Plasmonic Nanoantennas. Science, 2012, 335, 427-427.	6.0	1,291
5	Metasurface holograms for visible light. Nature Communications, 2013, 4, .	5.8	1,167
6	Loss-free and active optical negative-index metamaterials. Nature, 2010, 466, 735-738.	13.7	729
7	Refractory Plasmonics with Titanium Nitride: Broadband Metamaterial Absorber. Advanced Materials, 2014, 26, 7959-7965.	11.1	603
8	Ultra-thin, planar, Babinet-inverted plasmonic metalenses. Light: Science and Applications, 2013, 2, e72-e72.	7.7	576
9	Titanium nitride as a plasmonic material for visible and near-infrared wavelengths. Optical Materials Express, 2012, 2, 478.	1.6	567
10	Optical black hole: Broadband omnidirectional light absorber. Applied Physics Letters, 2009, 95, .	1.5	430
11	Broadband High-Efficiency Half-Wave Plate: A Supercell-Based Plasmonic Metasurface Approach. ACS Nano, 2015, 9, 4111-4119.	7.3	387
12	Demonstration of Al:ZnO as a plasmonic component for near-infrared metamaterials. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 8834-8838.	3.3	304
13	Electrically Tunable Damping of Plasmonic Resonances with Graphene. Nano Letters, 2012, 12, 5202-5206.	4.5	301
14	Nonmagnetic cloak with minimized scattering. Applied Physics Letters, 2007, 91, .	1.5	272
15	Hyperbolic metamaterials: new physics behind a classical problem. Optics Express, 2013, 21, 15048.	1.7	270
16	Metamagnetics with rainbow colors. Optics Express, 2007, 15, 3333.	1.7	265
17	Time-varying metasurfaces and Lorentz non-reciprocity. Optical Materials Express, 2015, 5, 2459.	1.6	258
18	The Ag dielectric function in plasmonic metamaterials. Optics Express, 2008, 16, 1186.	1.7	254

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19	Local Heating with Lithographically Fabricated Plasmonic Titanium Nitride Nanoparticles. Nano Letters, 2013, 13, 6078-6083.	4.5	253
20	Formation of Bound States in the Continuum in Hybrid Plasmonic-Photonic Systems. Physical Review Letters, 2018, 121, 253901.	2.9	252
21	All-dielectric subwavelength metasurface focusing lens. Optics Express, 2014, 22, 26212.	1.7	251
22	Broadband Hotâ€Electron Collection for Solar Water Splitting with Plasmonic Titanium Nitride. Advanced Optical Materials, 2017, 5, 1601031.	3.6	248
23	Ultra-thin ultra-smooth and low-loss silver films on a germanium wetting layer. Optics Express, 2010, 18, 5124.	1.7	237
24	Photonic Bound States in the Continuum: From Basics to Applications. Advanced Optical Materials, 2021, 9, .	3.6	237
25	Long-range and rapid transport of individual nano-objects by a hybrid electrothermoplasmonic nanotweezer. Nature Nanotechnology, 2016, 11, 53-59.	15.6	231
26	Electrical Modulation of Fano Resonance in Plasmonic Nanostructures Using Graphene. Nano Letters, 2014, 14, 78-82.	4.5	200
27	A negative permeability material at red light. Optics Express, 2007, 15, 1076.	1.7	192
28	Ten years of spasers and plasmonic nanolasers. Light: Science and Applications, 2020, 9, 90.	7.7	192
29	Dual-band negative index metamaterial: double negative at 813 nm and single negative at 772 nm. Optics Letters, 2007, 32, 1671.	1.7	188
30	Anisotropic Metamaterials Emulated by Tapered Waveguides: Application to Optical Cloaking. Physical Review Letters, 2009, 102, 213901.	2.9	181
31	Enhanced localized fluorescence in plasmonic nanoantennae. Applied Physics Letters, 2008, 92, .	1.5	178
32	Drude Relaxation Rate in Grained Gold Nanoantennas. Nano Letters, 2010, 10, 916-922.	4.5	176
33	Impedance-matched hyperlens. Optics Letters, 2007, 32, 3432.	1.7	168
34	Engineering space for light via transformation optics. Optics Letters, 2008, 33, 43.	1.7	168
35	Designs for optical cloaking with high-order transformations. Optics Express, 2008, 16, 5444.	1.7	168
36	Liquid crystal clad near-infrared metamaterials with tunable negative-zero-positive refractive indices. Optics Express, 2007, 15, 3342.	1.7	166

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37	Wavelength-Tunable Spasing in the Visible. Nano Letters, 2013, 13, 4106-4112.	4.5	166
38	Role of epsilon-near-zero substrates in the optical response of plasmonic antennas. Optica, 2016, 3, 339.	4.8	162
39	All-optical nonlinear activation function for photonic neural networks [Invited]. Optical Materials Express, 2018, 8, 3851.	1.6	162
40	Tunable magnetic response of metamaterials. Applied Physics Letters, 2009, 95, 033115.	1.5	154
41	Negative refractive index in optics of metal-dielectric composites. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 423.	0.9	149
42	Naturally hyperbolic. Nature Photonics, 2015, 9, 214-216.	15.6	147
43	Machine-learning-assisted metasurface design for high-efficiency thermal emitter optimization. Applied Physics Reviews, 2020, 7, .	5.5	147
44	Yellow-light negative-index metamaterials. Optics Letters, 2009, 34, 3478.	1.7	146
45	Roadmap on metasurfaces. Journal of Optics (United Kingdom), 2019, 21, 073002.	1.0	146
46	Subâ€wavelength interference pattern from volume plasmon polaritons in a hyperbolic medium. Laser and Photonics Reviews, 2013, 7, 265-271.	4.4	144
47	Temperature-Dependent Optical Properties of Plasmonic Titanium Nitride Thin Films. ACS Photonics, 2017, 4, 1413-1420.	3.2	143
48	Lead Halide Perovskite Nanostructures for Dynamic Color Display. ACS Nano, 2018, 12, 8847-8854.	7.3	142
49	Photonic spin Hall effect in gapâ€“plasmon metasurfaces for on-chip chiroptical spectroscopy. Optica, 2015, 2, 860.	4.8	141
50	Temperature-dependent optical properties of gold thin films. Optical Materials Express, 2016, 6, 2776.	1.6	141
51	Gold Nanorod Arrays as Plasmonic Cavity Resonators. ACS Nano, 2008, 2, 2569-2576.	7.3	138
52	Colors with plasmonic nanostructures: A full-spectrum review. Applied Physics Reviews, 2019, 6, .	5.5	136
53	Performance analysis of nitride alternative plasmonic materials for localized surface plasmon applications. Applied Physics B: Lasers and Optics, 2012, 107, 285-291.	1.1	132
54	Plasmonic nanoantenna arrays for the visible. Metamaterials, 2008, 2, 45-51.	2.2	131

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55	Loss-compensated and active hyperbolic metamaterials. Optics Express, 2011, 19, 25242.	1.7	126
56	Tunable optical negative-index metamaterials employing anisotropic liquid crystals. Applied Physics Letters, 2007, 91, .	1.5	125
57	Material platforms for optical metasurfaces. Nanophotonics, 2018, 7, 959-987.	2.9	122
58	Ultrabright Room-Temperature Sub-Nanosecond Emission from Single Nitrogen-Vacancy Centers Coupled to Nanopatch Antennas. Nano Letters, 2018, 18, 4837-4844.	4.5	121
59	Negative-Index Metamaterials: Going Optical. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1106-1115.	1.9	117
60	Nanoantenna array-induced fluorescence enhancement and reduced lifetimes. New Journal of Physics, 2008, 10, 125022.	1.2	112
61	Experimental verification of an optical negative-index material. Laser Physics Letters, 2006, 3, 49-55.	0.6	110
62	Optically Active Metasurface with Non-Chiral Plasmonic Nanoantennas. Nano Letters, 2014, 14, 4426-4431.	4.5	108
63	Enhanced Graphene Photodetector with Fractal Metasurface. Nano Letters, 2017, 17, 57-62.	4.5	106
64	Negative index metamaterial combining magnetic resonators with metal films. Optics Express, 2006, 14, 7872.	1.7	104
65	Solar-Powered Plasmon-Enhanced Heterogeneous Catalysis. Nanophotonics, 2016, 5, 112-133.	2.9	102
66	Colloidal Plasmonic Titanium Nitride Nanoparticles: Properties and Applications. Nanophotonics, 2015, 4, 269-276.	2.9	100
67	Ultrathin and multicolour optical cavities with embedded metasurfaces. Nature Communications, 2018, 9, 2673.	5.8	97
68	Enhancement of singleâ€‘photon emission from nitrogenâ€‘vacancy centers with TiN/(Al,Sc)N hyperbolic metamaterial. Laser and Photonics Reviews, 2015, 9, 120-127.	4.4	93
69	Plasmonics on the slope of enlightenment: the role of transition metal nitrides. Faraday Discussions, 2015, 178, 71-86.	1.6	92
70	Material parameter retrieval procedure for general bi-isotropic metamaterials and its application to optical chiral negative-index metamaterial design. Optics Express, 2008, 16, 11822.	1.7	87
71	Holey-Metal Lenses: Sieving Single Modes with Proper Phases. Nano Letters, 2013, 13, 159-163.	4.5	84
72	Metal nanoslit lenses with polarization-selective design. Optics Letters, 2011, 36, 451.	1.7	78

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73	Transformation optics and metamaterials. Physics-Uspekhi, 2011, 54, 53-63.	0.8	76
74	Machine learningâ€“assisted global optimization of photonic devices. Nanophotonics, 2020, 10, 371-383.	2.9	74
75	Near-field excitation of nanoantenna resonance. Optics Express, 2007, 15, 13682.	1.7	72
76	Highly directional spaser array for the red wavelength region. Laser and Photonics Reviews, 2014, 8, 896-903.	4.4	69
77	Broadband enhancement of spontaneous emission from nitrogen-vacancy centers in nanodiamonds by hyperbolic metamaterials. Applied Physics Letters, 2013, 102, 173114.	1.5	68
78	Evolution of photonic metasurfaces: from static to dynamic. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 501.	0.9	68
79	Frequency-domain simulations of a negative-index material with embedded gain. Optics Express, 2009, 17, 24060.	1.7	67
80	Graphene: A Dynamic Platform for Electrical Control of Plasmonic Resonance. Nanophotonics, 2015, 4, 214-223.	2.9	67
81	Near-infrared metamaterials with dual-band negative-index characteristics. Optics Express, 2007, 15, 1647.	1.7	64
82	Quasi-coherent thermal emitter based on refractory plasmonic materials. Optical Materials Express, 2015, 5, 2721.	1.6	64
83	Effect of metallic and hyperbolic metamaterial surfaces on electric and magnetic dipole emission transitions. Applied Physics B: Lasers and Optics, 2011, 103, 553-558.	1.1	63
84	Nanolasers Enabled by Metallic Nanoparticles: From Spasers to Random Lasers. Laser and Photonics Reviews, 2017, 11, 1700212.	4.4	63
85	Transformation optics: approaching broadband electromagnetic cloaking. New Journal of Physics, 2008, 10, 115029.	1.2	61
86	Temperature-Dependent Optical Properties of Single Crystalline and Polycrystalline Silver Thin Films. ACS Photonics, 2017, 4, 1083-1091.	3.2	60
87	Experimental observation of the trapped rainbow. Applied Physics Letters, 2010, 96, 211121.	1.5	59
88	Finite-width plasmonic waveguides with hyperbolic multilayer cladding. Optics Express, 2015, 23, 9681.	1.7	58
89	Pancharatnamâ€“Berry Phase Manipulating Metasurface for Visible Color Hologram Based on Low Loss Silver Thin Film. Advanced Optical Materials, 2017, 5, 1700196.	3.6	58
90	Ultrafast quantum photonics enabled by coupling plasmonic nanocavities to strongly radiative antennas. Optica, 2020, 7, 463.	4.8	58

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91	Plasmonic waveguides cladded by hyperbolic metamaterials. Optics Letters, 2014, 39, 4663.	1.7	56
92	Controlling the Polarization State of Light with Plasmonic Metal Oxide Metasurface. ACS Nano, 2016, 10, 9326-9333.	7.3	56
93	Enhancing the graphene photocurrent using surface plasmons and a p-n junction. Light: Science and Applications, 2020, 9, 126.	7.7	56
94	Enabling Optical Steganography, Data Storage, and Encryption with Plasmonic Colors. Laser and Photonics Reviews, 2021, 15, 2000343.	4.4	56
95	Unidirectional Spaser in Symmetry-Broken Plasmonic Core-Shell Nanocavity. Scientific Reports, 2013, 3, 1241.	1.6	55
96	Optical Dispersion Models for Time-Domain Modeling of Metal-Dielectric Nanostructures. IEEE Transactions on Magnetics, 2011, 47, 1150-1153.	1.2	53
97	Maxwell fish-eye and Eaton lenses emulated by microdroplets. Optics Letters, 2010, 35, 3396.	1.7	52
98	Single and Multiâ€Mode Directional Lasing from Arrays of Dielectric Nanoresonators. Laser and Photonics Reviews, 2021, 15, 2000411.	4.4	51
99	Ultrathin, ultrasmooth, and low-loss silver films via wetting and annealing. Applied Physics Letters, 2010, 97, .	1.5	49
100	Lasing Action with Gold Nanorod Hyperbolic Metamaterials. ACS Photonics, 2017, 4, 674-680.	3.2	49
101	Cylinder light concentrator and absorber: theoretical description. Optics Express, 2010, 18, 16646.	1.7	48
102	Long-range plasmonic waveguides with hyperbolic cladding. Optics Express, 2015, 23, 31109.	1.7	48
103	Dynamic Control of Nanocavities with Tunable Metal Oxides. Nano Letters, 2018, 18, 740-746.	4.5	48
104	FDTD modeling of realistic semicontinuous metal films. Applied Physics B: Lasers and Optics, 2010, 100, 159-168.	1.1	47
105	High-Resolution Large-Ensemble Nanoparticle Trapping with Multifunctional Thermoplasmonic Nanohole Metasurface. ACS Nano, 2018, 12, 5376-5384.	7.3	47
106	Zinc Oxide Based Plasmonic Multilayer Resonator: Localized and Gap Surface Plasmon in the Infrared. ACS Photonics, 2015, 2, 1224-1230.	3.2	45
107	Plasmonic Titanium Nitride Nanostructures via Nitridation of Nanopatterned Titanium Dioxide. Advanced Optical Materials, 2017, 5, 1600717.	3.6	42
108	Power deposition inside a phantom for testing of MRI heating. IEEE Transactions on Magnetics, 2005, 41, 4185-4187.	1.2	41

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109	Plasmon resonance in multilayer graphene nanoribbons. Laser and Photonics Reviews, 2015, 9, 650-655.	4.4	39
110	Metasurface perfect absorber based on guided resonance of a photonic hypercrystal. Physical Review B, 2016, 94, .	1.1	39
111	Heating near implanted medical devices by the MRI RF-magnetic field. IEEE Transactions on Magnetics, 1999, 35, 4133-4135.	1.2	38
112	Interactions of magnetic resonance imaging radio frequency magnetic fields with elongated medical implants. Journal of Applied Physics, 2000, 87, 6188-6190.	1.1	37
113	On-Chip Hybrid Photonic-Plasmonic Waveguides with Ultrathin Titanium Nitride Films. ACS Photonics, 2018, 5, 4423-4431.	3.2	36
114	Fabrication and realistic modeling of three-dimensional metal-dielectric composites. Journal of Nanophotonics, 2011, 5, 051513.	0.4	35
115	Surface-plasmon opto-magnetic field enhancement for all-optical magnetization switching. Optical Materials Express, 2017, 7, 4316.	1.6	35
116	Achieving full-color generation with polarization-tunable perfect light absorption. Optical Materials Express, 2019, 9, 779.	1.6	35
117	Optical Metamagnetism and Negative-Index Metamaterials. MRS Bulletin, 2008, 33, 921-926.	1.7	34
118	Spatial and Temporal Nanoscale Plasmonic Heating Quantified by Thermoreflectance. Nano Letters, 2019, 19, 3796-3803.	4.5	28
119	Stochastic optimization of low-loss optical negative-index metamaterial. Journal of the Optical Society of America B: Optical Physics, 2007, 24, A34.	0.9	27
120	Rapid Classification of Quantum Sources Enabled by Machine Learning. Advanced Quantum Technologies, 2020, 3, 2000067.	1.8	27
121	Materializing a binary hyperlens design. Applied Physics Letters, 2009, 94, .	1.5	26
122	Spasers with retardation and gain saturation: electrodynamic description of fields and optical cross-sections. Optical Materials Express, 2015, 5, 2546.	1.6	26
123	Adiabatically Tapered Hyperbolic Metamaterials for Dispersion Control of High-k Waves. Nano Letters, 2015, 15, 498-505.	4.5	26
124	Enhancing sensitivity to ambient refractive index with tunable few-layer graphene/hBN nanoribbons. Photonics Research, 2019, 7, 815.	3.4	26
125	Bianisotropic Effective Parameters of Optical Metamagnetics and Negative-Index Materials. Proceedings of the IEEE, 2011, 99, 1691-1700.	16.4	25
126	Translation of nanoantenna hot spots by a metal-dielectric composite superlens. Applied Physics Letters, 2009, 95, 033114.	1.5	23

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127	Controlling the wave focal structure of metallic nanoslit lenses with liquid crystals. Laser Physics Letters, 2011, 8, 828-832.	0.6	23
128	Homogenization of bi-anisotropic metasurfaces. Optics Express, 2013, 21, 21941.	1.7	23
129	Lithography-Free Plasmonic Color Printing with Femtosecond Laser on Semicontinuous Silver Films. ACS Photonics, 2021, 8, 521-530.	3.2	21
130	Artificial Synapse with Mnemonic Functionality using GSST-based Photonic Integrated Memory. , 2020, , .		21
131	Second harmonic generation with plasmonic metasurfaces: direct comparison of electric and magnetic resonances. Optical Materials Express, 2015, 5, 2682.	1.6	20
132	Extraordinarily large permittivity modulation in zinc oxide for dynamic nanophotonics. Materials Today, 2021, 43, 27-36.	8.3	20
133	Method for detection of broken bars in induction motors. IEEE Transactions on Magnetics, 2000, 36, 3608-3610.	1.2	17
134	The validation of the parallel three-dimensional solver for analysis of optical plasmonic bi-periodic multilayer nanostructures. Applied Physics A: Materials Science and Processing, 2010, 100, 365-374.	1.1	17
135	Photonic topological phase transition on demand. Nanophotonics, 2019, 8, 1349-1356.	2.9	17
136	Diffractive nanoslit lenses for subwavelength focusing. Optics Communications, 2012, 285, 3368-3372.	1.0	16
137	A high-order accurate scheme for Maxwell's equations with a generalized dispersive material model. Journal of Computational Physics, 2019, 378, 411-444.	1.9	16
138	Experimental retrieval of the kinetic parameters of a dye in a solid film. Optics Express, 2011, 19, 18253.	1.7	15
139	Numerical Modeling of Plasmonic Nanoantennas with Realistic 3D Roughness and Distortion. Sensors, 2011, 11, 7178-7187.	2.1	15
140	Time-domain dynamics of saturation of absorption using multilevel atomic systems. Optical Materials Express, 2018, 8, 3829.	1.6	15
141	Fabrication and optical characterizations of smooth silver-silica nanocomposite films. Laser Physics Letters, 2010, 7, 677-684.	0.6	14
142	Experimental verification of two-dimensional spatial harmonic analysis at oblique light incidence. Journal of the Optical Society of America B: Optical Physics, 2010, 27, 2465.	0.9	14
143	Designing optimal nanofocusing with a gradient hyperlens. Nanophotonics, 2017, 7, 479-487.	2.9	14
144	Machine learning framework for quantum sampling of highly constrained, continuous optimization problems. Applied Physics Reviews, 2021, 8, .	5.5	14

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145	Multipole analysis of an elongated magnetic source by a cylindrical sensor array. IEEE Transactions on Magnetics, 2002, 38, 2465-2467.	1.2	13
146	Simplified model for periodic nanoantennae: linear model and inverse design. Optics Express, 2009, 17, 11607.	1.7	13
147	Tuning Topology of Photonic Systems with Transparent Conducting Oxides. ACS Photonics, 2019, 6, 1922-1930.	3.2	13
148	Efficient Topology-Optimized Couplers for On-Chip Single-Photon Sources. ACS Photonics, 2021, 8, 3061-3068.	3.2	13
149	Continuous-discontinuous Galerkin time domain (CDGTD) method with generalized dispersive material (GDM) model for computational photonics. Optics Express, 2018, 26, 29005.	1.7	13
150	Laser-induced color printing on semicontinuous silver films: red, green and blue. Optical Materials Express, 2019, 9, 1528.	1.6	13
151	Multipole imaging of an elongated magnetic source. IEEE Transactions on Magnetics, 2000, 36, 3108-3111.	1.2	12
152	Efficient simulation of non-linear effects in 2D optical nanostructures to TM waves. Optics Communications, 2010, 283, 1628-1632.	1.0	12
153	Near field enhancement in silver nanoantenna-superlens systems. Applied Physics Letters, 2012, 101, 021109.	1.5	11
154	Engineered nonlinear materials using gold nanoantenna array. Scientific Reports, 2018, 8, 780.	1.6	11
155	Remote Sensing of High Temperatures with Refractory, Direct-Contact Optical Metacavity. ACS Photonics, 2020, 7, 472-479.	3.2	11
156	A high-order accurate scheme for Maxwell's equations with a Generalized Dispersive Material (GDM) model and material interfaces. Journal of Computational Physics, 2020, 412, 109424.	1.9	11
157	Plasmonic metasurfaces for subtractive color filtering: optimized nonlinear regression models. Optics Letters, 2018, 43, 4815.	1.7	11
158	Titanium nitride as a plasmonic material for visible and near-infrared wavelengths [erratum]. Optical Materials Express, 2013, 3, 1658.	1.6	10
159	Time-domain dynamics of reverse saturable absorbers with application to plasmon-enhanced optical limiters. Nanophotonics, 2018, 8, 145-151.	2.9	10
160	Comment on "Negative refractive index in artificial metamaterials". Optics Letters, 2007, 32, 1510.	1.7	9
161	Frequency-domain modeling of TM wave propagation in optical nanostructures with a third-order nonlinear response. Optics Letters, 2009, 34, 3364.	1.7	9
162	Exploring Timeâ€Resolved Multiphysics of Active Plasmonic Systems with Experimentâ€Based Gain Models. Laser and Photonics Reviews, 2019, 13, 1800071.	4.4	9

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163	On-Chip Single-Layer Integration of Diamond Spins with Microwave and Plasmonic Channels. ACS Photonics, 2020, 7, 2018-2026.	3.2	9
164	Coupling effect in a near-field objectâ€“superlens system. Applied Physics A: Materials Science and Processing, 2012, 107, 83-88.	1.1	8
165	Trapped rainbow techniques for spectroscopy on a chip and fluorescence enhancement. Applied Physics B: Lasers and Optics, 2012, 106, 577-581.	1.1	8
166	Power Balance and Temperature in Optically Pumped Spasers and Nanolasers. ACS Photonics, 2018, 5, 3695-3703.	3.2	8
167	Chipâ€Compatible Quantum Plasmonic Launcher. Advanced Optical Materials, 2020, 8, 2000889.	3.6	8
168	Optimizing Startshot Lightsail Design: A Generative Network-Based Approach. ACS Photonics, 2022, 9, 190-196.	3.2	8
169	Modeling nonlinear effects in 2D optical metamagnetics. Metamaterials, 2010, 4, 77-82.	2.2	7
170	Broadband Transformation Optics Devices. Materials, 2010, 3, 4793-4810.	1.3	7
171	Expanding the theory of circular omnidirectional light concentrators to elliptic and spheroidal designs. Journal of Optics (United Kingdom), 2016, 18, 044014.	1.0	7
172	Modulating phase by metasurfaces with gated ultra-thin TiN films. Nanoscale, 2019, 11, 11167-11172.	2.8	7
173	GSST-based photonic memory multilevel perceptron. , 2020, , .		7
174	Enhanced absorption and photoluminescence from dye-containing thin polymer film on plasmonic array. Optics Express, 2019, 27, 5083.	1.7	7
175	Intelligent edge processing with photonic multilevel memory. , 2020, , .		7
176	Light propagation through random hyperbolic media. Optics Letters, 2013, 38, 971.	1.7	6
177	Photonic Time-Crystals and Momentum Band-Gaps. , 2016, , .		6
178	Gaussian dispersion analysis in the time domain: Efficient conversion with PadÃ© approximants. Computer Physics Communications, 2022, 279, 108413.	3.0	6
179	Fast spheroidal multipole imaging of elementary magnetic sources on the axis. Journal of Applied Physics, 2001, 89, 6716-6718.	1.1	5
180	Multipole Characterization of a Magnetic Source Using a Truncated SVD. IEEE Transactions on Magnetics, 2004, 40, 2176-2178.	1.2	5

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181	Application of Spheroidal Functions in Magnetostatics. IEEE Transactions on Magnetics, 2004, 40, 846-849.	1.2	5
182	Direct measurement of group delay dispersion in metamagnetics for ultrafast pulse shaping. Optics Express, 2012, 20, 23082.	1.7	5
183	Efficient time-domain model of the graphene dielectric function. , 2013, , .		5
184	Time-domain modeling of silver nanowires-graphene transparent conducting electrodes. Proceedings of SPIE, 2013, , .	0.8	5
185	Numerical modeling of active plasmonic metamaterials. Proceedings of SPIE, 2011, , .	0.8	4
186	Electrically Tunable Plasmonic Resonances with Graphene. , 2012, , .		4
187	Experimental validation of a new bianisotropic parameter retrieval technique using plasmonic metasurfaces made of V-shape antennas. , 2013, , .		4
188	Computationally Efficient Surface Conductivity Graphene Model for Active Metadevices. IEEE Transactions on Antennas and Propagation, 2020, 68, 1825-1835.	3.1	4
189	Artificial Synapse with Mnemonic Functionality using GSST-based Photonic Integrated Memory. Applied Computational Electromagnetics Society Journal, 2021, 35, 1447-1449.	0.4	4
190	Machine-learning-assisted topology optimization for highly efficient thermal emitter design. , 2019, , .		4
191	Zinc oxide (ZnO) hybrid metasurfaces exhibiting broadly tunable topological properties. Nanophotonics, 2022, .	2.9	4
192	Effect of noise and localization error of magnetic field sensors on the characterization of complex sources. Journal of Applied Physics, 2002, 91, 8891.	1.1	3
193	Spatial harmonic analysis of fem results in magnetostatics. IEEE Transactions on Magnetics, 2003, 39, 3034-3036.	1.2	3
194	Metal nanoslit lenses with polarization-selective design: erratum. Optics Letters, 2011, 36, 1244.	1.7	3
195	Fast Eigensolver for Plasmonic Metasurfaces. Optical Materials Express, 2014, 4, 288.	1.6	3
196	Elliptic cylindrical pseudo-optical black hole for omnidirectional light absorber: comment. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 719.	0.9	3
197	Mid-infrared hyperbolic metamaterial based on graphene-dielectric multilayers. , 2015, , .		3
198	Patterned multilayer metamaterial for fast and efficient photon collection from dipolar emitters. Optics Letters, 2017, 42, 3968.	1.7	3

#	Article	IF	Citations
199	MXenes for Plasmonic and Metamaterial Devices. , 2018, , .		3
200	High-order accurate schemes for Maxwell's equations with nonlinear active media and material interfaces. Journal of Computational Physics, 2022, 456, 111051.	1.9	3
201	Fast magnetic multipole imaging of elementary sources on the disk. Journal of Applied Physics, 2002, 91, 8721.	1.1	2
202	Prediction of the magnetic field beyond a rectangular array of sensors. Journal of Applied Physics, 2003, 93, 7074-7076.	1.1	2
203	Extended multipole image of a nonideal permanent magnet rotor. Journal of Applied Physics, 2003, 93, 8668-8670.	1.1	2
204	From low-loss to lossless optical negative-index materials. , 2006, , .		2
205	Transforming the Field of Physical Optics. Optics and Photonics News, 2009, 20, 38.	0.4	2
206	Metal Nitrides for Plasmonic Applications. , 2012, , .		2
207	Local heating with titanium nitride nanoparticles. , 2013, , .		2
208	Solarâ€Energy Harvesting: Broadband Hotâ€Electron Collection for Solar Water Splitting with Plasmonic Titanium Nitride (Advanced Optical Materials 15/2017). Advanced Optical Materials, 2017, 5, .	3.6	2
209	High-Speed Quantum Photonics with Plasmonic Metamaterials Empowered by Machine Learning. , 2019, , .		2
210	High Q-Factor All-Dielectric Metasurface Based on Bound States in the Continuum. , 2019, , .		2
211	Nanostructured Transparent Conductive Oxide Films for Plasmonic Applications. , 2013, , .		2
212	Non-fading Plasmonic Color Printing on Semicontinuous Metal Films with Protective Atomic Layer Deposition. , 2020, , .		2
213	Nitrides as alternative materials for localized surface plasmon applications. , 2012, , .		2
214	Thermoreflectance Imaging of Optically Pumped Gap Plasmon Structures. , 2018, , .		2
215	Artificial-intelligence-assisted photonics (Conference Presentation). , 2019, , .		2
216	Room-Temperature Lasing Action from All-dielectric Metasurfaces Near Bound States in the Continuum. , 2020, , .		2

#	Article	IF	Citations
217	Deperming technology in large ferromagnetic pipes. IEEE Transactions on Magnetics, 1999, 35, 3907-3909.	1.2	1
218	The spatial harmonic analysis of FEM results in magnetostatics. , 0, , .		1
219	The Transformation of Spatial Harmonics in a Combined Electromagnetic Shield. IEEE Transactions on Magnetics, 2004, 40, 3072-3074.	1.2	1
220	Negative index metamaterial for two distinct polarizations: Double negative at 813 nm and single negative at 770 nm. , 2007, , .		1
221	Nature-based optimization of 2d negative-index metamaterials. , 2007, , .		1
222	Optical Negative Index Metamerials with Low Losses: Nature-Inspired Methods for Optimal Design. , 2007, , .		1
223	Maxwell fisheye and Eaton lenses emulated by a microdroplet. , 2010, , .		1
224	Analyzing the effect of a metamaterial surface on electric and magnetic dipole emissions using Green's function and spatial harmonic analysis techniques. , 2010, , .		1
225	Gold Nanoslit Lenses. , 2011, , .		1
226	Studies of plasmonic hot-spot translation by a metal-dielectric layered superlens. , 2011, , .		1
227	Plasmonic Titanium Nitride Nanostructures for Perfect Absorbers. , 2013, , .		1
228	Time Domain Modeling of Tunable Response of Graphene. , 2013, , .		1
229	Titanium Nitride as a Refractory Plasmonic Material for High Temperature Applications. , 2014, , .		1
230	Nanostructured Transparent Conducting Oxide Films for Polarization Control with Plasmonic Metasurfaces. , 2014, , .		1
231	GZO/ZnO Multilayered nanodisk metasurface to engineer the plasma frequency. , 2014, , .		1
232	High-temperature plasmonic thermal emitter for thermo-photovotaics. , 2014, , .		1
233	Optical characteristics of vertically aligned arrays of branched silver nanowires. , 2014, , .		1
234	Plasmon-Assisted Optoelectrofluidics. , 2015, , .		1

#	Article	IF	Citations
235	Merging metamaterials with quantum photonics. , 2015, , .		1
236	Color Hologram Generation Using a Pancharatnam-Berry Phase Manipulating Metasurface. , 2015, , .		1
237	Implementation of Metasurface Based Nano-Cavities. , 2016, , .		1
238	High Temperature Sensing with Refractory Plasmonic Metasurfaces. , 2018, , .		1
239	Emerging materials for tailorable nanophotonic devices. , 2018, , .		1
240	Time domain modeling of active materials. , 2018, , .		1
241	Machine learning assisted quantum super-resolution microscopy. , 2021, , .		1
242	Metasurface design optimization via D-Wave based sampling. , 2021, , .		1
243	Laser Color Printing on Semicontinuous Silver Films. , 2019, , .		1
244	Plasmonic Metasurface Based Ultra-thin Phase Holograms and Planar Micro-lenses. , 2013, , .		1
245	Broadband hot electron generation for solar energy conversion with plasmonic titanium nitride. , 2017, , .		1
246	Wavelength-dependent Optical-rotation Manipulation for Active Color Display and Highly Secure Encryption. , 2018, , .		1
247	Photonic Metamaterials: From Linear to Nonlinear Optics. , 2006, , .		1
248	Improving Au Nanoantenna Resonance by Annealing. , 2008, , .		1
249	Protein Crystal Detection and Characterization Using Polarization Interferometry. , 2006, , .		1
250	A Tool for Designing Realizable Hyperlenses. , 2009, , .		1
251	Optical Black Hole: Design and Performance. , 2010, , .		1
252	Experimental Realization of Color Hologram Using Pancharatnam-Berry Phase Manipulating Metasurface. , 2016, , .		1

#	Article	IF	Citations
253	Hybrid Photonic-Plasmonic Waveguides with Ultrathin TiN. , 2019, , .		1
254	Dynamically controlled random lasing with colloidal titanium carbide MXene. Optical Materials Express, 2020, 10, 2304.	1.6	1
255	Fabricating Plasmonic Components for Nano- and Meta-Photonics. NATO Science for Peace and Security Series B: Physics and Biophysics, 2009, , 209-221.	0.2	1
256	A permeable spheroidal shield of an almost uniform thickness. , 0, , .		0
257	Optical Negative-Index Metamaterials: from low to no-loss and from linear to nonlinear optics. , 2006, , .		0
258	Single Negative, Double Negative, Low Loss Negative. , 2007, , .		0
259	Liquid crystal clad metamaterial with a tunable negative-zero-positive index of refraction. , 2007, , .		0
260	Negative meta-magnetism in the visible range. , 2007, , .		0
261	DCT Local Adaptive Filtering of Images Corrupted by Fluctuative Noise with a Priori Unknown Statistical Properties. , 2007, , .		0
262	Far-Field Characterization of Gold Nanoantenna Arrays. , 2007, , FThF2.		0
263	Design of non-magnetic optical cloak. , 2007, , .		0
264	Dual-band negative-index metamaterials in the near-infrared frequency range. , 2007, , .		0
265	Negative Index Metamaterial for Two Distinct Polarizations: Double Negative at 813 nm and Single Negative at 770 nm. , 2007, , .		0
266	Fabrication of Metamagnetics for Visible Wavelengths. , 2007, , .		0
267	Thin metal-dielectric nanocomposites with a negative index of refraction. , 2007, , 271-308.		0
268	Optical chiral negative-index metamaterial design. , 2008, , .		0
269	Translation of Nanoantenna Field Enhancement by a Metal-Dielectric Composite Superlens. , 2009, , .		0
270	Transformation optics approach to the extreme control of light. , 2009, , .		0

#	Article	IF	Citations
271	Fabricating plasmonic components for nanophotonics. , 2009, , .		0
272	Time-Domain Modeling of Metal-Dielectric Nanostructures. , 2010, , .		0
273	Validation of the Parallel Three-Dimensional Solver for Analysis of Optical Plasmonic Bi-Periodic Multilayer Nanostructures. , 2010, , .		0
274	Two-photon Absorption Enhancement with Gold Nanoantenna Array. , 2010, , .		0
275	Scalable spatial harmonic analysis solver for modeling plasmonic bi-periodic multilayer nanostructures. , 2010, , .		0
276	FE modeling of plasmonic nanoantennas with realistic 3D roughness and distortion. , 2010, , .		0
277	Time-domain modeling of metal-dielectric nanostructures characterized by a set of single-pole dispersion terms. , 2010, , .		0
278	Time Domain Model of a Gain Medium Fitted to Pump-Probe Experiments. , 2011, , .		0
279	Maxwell Fisheye and Eaton Lenses Emulated by Microdroplets. , 2011, , .		0
280	Non-linear modeling of active or passive optical lamellar nanostructures. , 2011, , .		0
281	All-semiconductor metamaterial with negative refraction in the near-infrared. , 2012, , .		0
282	Designing a nanoantenna-superlens system for sensing applications. , 2012, , .		0
283	Double-Slit Diffraction Experiment in Hyperbolic Media. , 2012, , .		0
284	Pulse shaping using optical metamaterials with naturally anisotropic structural elements. , 2012, , .		0
285	Volume plasmon polaritons and subwavelength interference in a hyperbolic medium. , 2013, , .		0
286	Planar Meta-Optics. , 2013, , .		0
287	Time-domain Modeling of Silver Nano-net for Transparent Conducting Electrodes. , 2013, , .		0
288	Diffractive optics with nanoslits. , 2013, , .		0

#	Article	IF	Citations
289	Tuning Fano Resonances with Graphene. , 2013, , .		0
290	Unidirectional lasing with symmetry broken core-shell nanoparticle. , 2013, , .		0
291	Tunable Pulse-Shaping with Gated Graphene Nanoribbons. , 2014, , .		0
292	Second Harmonic Generation by Metamagnetics: Interplay of Electric and Magnetic Resonances. , 2014, , .		0
293	Highly-directional plasmonic lasing in the visible with subwavelength hole arrays. , 2014, , .		0
294	Unidirectional Surface Plasmon Polariton Coupler in the Visible Using Metasurfaces. , 2014, , .		0
295	Low-Loss Plasmonic Titanium Nitride Strip Waveguides. , 2014, , .		0
296	All-Dielectric Metasurface Focusing Lens. , 2014, , .		0
297	Titanium nitride nanoparticles for therapeutic applications. , 2014, , .		0
298	Single-photon source based on NV center in nanodiamond coupled to TiN-based hyperbolic metamaterial. , 2014, , .		0
299	Optically pumped plasmonic nanolasers: Experimentally fitted time-resolved multiphysics modeling of lasing dynamics (Invited). , 2015, , .		0
300	Electrothermoplasmonic flow for plasmon-assisted optical trapping (Presentation Recording). , 2015, , .		0
301	In-the-cloud optimization tool for retrieving experimentally fitted conductivity of graphene (Presentation Recording). Proceedings of SPIE, 2015, , .	0.8	0
302	Time-resolved lasing dynamics for plasmonic system with gain (Presentation Recording). , 2015, , .		0
303	Dual-Band Metasurface Based Nano-Cavities. , 2015, , .		0
304	Broadband High-Efficiency Half-Wave Plate Using Plasmonic Metasurface. , 2015, , .		0
305	Multilayer Cladding with Hyperbolic Dispersion for Plasmonic Waveguides. , 2015, , .		0
306	Effect of photonic density of states on spin-flip induced fluorescence contrast in diamond nitrogen-vacancy center ensembles (Presentation Recording). Proceedings of SPIE, 2015, , .	0.8	0

#	Article	IF	Citations
307	Transparent conducting oxides as plasmonic component in near infrared (Presentation Recording). , 2015, , .		0
308	Nitrogen-vacancy single-photon emission enhanced with nanophotonic structures (Presentation) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7		0
309	Plasmon Resonance in Single- and Double-layer CVD Graphene Nanoribbons. , 2015, , .		0
310	Time-Domain Model of 4-Level Gain System Fitted to Nanohole Array Lasing Experiment. , 2015, , .		0
311	Ultrafast dynamics of Al-doped zinc oxide under optical excitation (Presentation Recording). , 2015, , .		0
312	Alternative materials lead to practical nanophotonic components (Presentation Recording). Proceedings of SPIE, 2015, , .	0.8	0
313	Effect of a hyperbolic metamaterial on radiation patterns of a single-photon source. , 2015, , .		0
314	Enhanced Graphene Photodetector with Fractal Metasurface. , 2016, , .		0
315	Omnidirectional light concentrators and absorbers revisited: Almost flat absorbers inside almost circular (spherical) lenses. , 2016, , .		0
316	Lasing boosted with plasmonic nanostructures. , 2016, , .		0
317	Optical dispersion models for graphene: Integration-free formulations. , 2016, , .		0
318	Subwavelength optics with hyperbolic metamaterials: Waveguides, scattering, and optical topological transitions. , 2016, , .		0
319	Plasmonics: Plasmonic Titanium Nitride Nanostructures via Nitridation of Nanopatterned Titanium Dioxide (Advanced Optical Materials 7/2017). Advanced Optical Materials, 2017, 5, .	3.6	0
320	Patterning metamaterials for fast and efficient single-photon sources. , 2017, , .		0
321	Time Domain Modeling of Bi-Anisotropic Homogenized Media with Analytical Dispersion. , 2018, , .		0
322	Optimization of plasmonic metasurfaces for subtractive color filtering. , 2018, , .		0
323	Bi-anisotropic homogenization for efficient metasurface design (invited). , 2018, , .		0
324	Modeling time domain multiphysics of reverse saturable absorption. , 2018, , .		0

#	Article	IF	Citations
325	Coupling electron transport with maxwell equations for modelling optically tunable photonic elements. , 2018, , .		0
326	Adversarial Autoencoders for Metasurface Design Optimization (invited). , 2020, , .		0
327	Bianisotropic Characterization of Mestasurfaces with Plasmon-Enhanced Nonlinearity. , 2021, , .		0
328	Chapter 9 Thin metal-dielectric nanocomposites with a negative index of refraction. Advances in Nano-optics and Nano-photonics, 2006, , 271-308.	0.0	0
329	Optical 2D Nanoantennae Arrays. , 2007, , .		0
330	Metamagnetics for Visible Wavelengths (491 â€“ 754 nm). , 2007, , .		0
331	Optical Cloak of Invisibility. , 2007, , .		0
332	Cloaking at Optical Wavelengths. , 2007, , .		0
333	Negative Index Metamaterials for Visible Wavelengths. , 2009, , .		0
334	Progress in Metamaterials for Optical Devices. , 2009, , .		0
335	Yellow Light Negative-index Metamaterials. , 2009, , .		0
336	Bi-Anisotropy of Optical Metamagnetics Studied with Spectroscopic Ellipsometry. , 2010, , .		0
337	Ultra-Thin Ultra-Smooth and Low-Loss Silver and Silver-Silica Composite Films for Superlensing Applications. , 2010, , .		0
338	Improving Plasmonic Nanoantennas. , 2010, , .		0
339	SHA Modeling of Gold Gratings for Oblique Light Incidence. , 2010, , .		0
340	Effect of Metallic and Hyperbolic Metamaterial Surface on Electric and Magnetic Dipole Emission. , 2011, , .		0
341	Gain-Assisted Hyperbolic Metamaterials. , 2012, , .		0
342	Symmetry-Breaking Plasmonic Metasurfaces for Broadband Light Bending. , 2012, , .		0

#	Article	IF	Citations
343	Holey metallic lens for light focusing. , 2013, , .		0
344	Elliptic Light Absorber: Trapping Light Between Two Foci. , 2014, , .		0
345	Dispersion Control of High-k Waves in Tapered Hyperbolic Waveguides. , 2015, , .		0
346	Studying the Interplay of Electric and Magnetic Resonance-Enhanced Second Harmonic Generation: Theory and Experiments. , 2015, , .		0
347	Optical properties of gold thin films at elevated temperatures. , 2016, , .		0
348	Metasurface Perfect Absorber Based on Guided Resonance of Hypercrystal. , 2016, , .		0
349	Gain-Assisted Surface Plasmon Polaritons: Time Domain Analysis with Experimentally Fitted Organic Dye Models. , 2016, , .		0
350	Controlled Rapid Delivery and On-Chip Trapping of Nanoparticles by a Hybrid Electrothermoplasmonic Nanotweezer. , 2016, , .		0
351	On-demand rapid transport and stable trapping of nanoparticles of nanoparticles by a hybrid electrothermoplasmonic nanotweezer (Conference Presentation). , 2016, , .		0
352	Temperature induced deviations to the optical responses of plasmonic materials. , 2017, , .		0
353	A Comparative Study for Performance and Power Consumption of FPGA Digital Interpolation Filters. International Journal of Advanced Computer Science and Applications, 2017, 8, .	0.5	0
354	Time Domain Modeling of Lasing Dynamics in Hyperbolic Metamaterials. , 2017, , .		0
355	Enhanced Spontaneous Emission of Quantum Emitters in the Vicinity of TiN Thin Films. , 2018, , .		0
356	Tunable topology of photonic systems based on transparent conducting oxides. , 2018, , .		0
357	Waves stranded at sea: bound states in the continuum in a strong coupling regime. Advanced Photonics, 2019, 1, 1.	6.2	0
358	Using Dynamic Plasmonic Colors for Optical Cryptography. , 2019, , .		0
359	Strong Coupling and Bound States in the Continuum in Hybrid Photonic-Plasmonic Structure. , 2019, , .		0
360	Controlled Assembly of an Ultrafast Single-Photon Source. , 2019, , .		0

#	Article	IF	Citations
361	Feature issue introduction: advanced computational nanophotonics: from materials to devices. Optical Materials Express, 2019, 9, 1967.	1.6	0
362	A quantum plasmonic launcher for integrated ultrafast single-photon sources. , 2020, , .		0
363	Intelligent Computing with Photonic Memories. , 2020, , .		0
364	Plasmon-enhanced graphene photothermoelectric detector. , 2020, , .		0
365	Metal-dielectric resonators for multimode, ultrafast all-optical switching in the NIR. , 2020, , .		0
366	Merging Machine Learning with Quantum Photonics: Rapid classification of quantum sources. , 2020, , .		0
367	Enhancing the performance of coupled cavity-antenna plasmonic nanostructures for ultrafast quantum photonics. , 2020, , .		0
368	Nonlinear Light-Matter Interactions: Time-Domain Multiphysics Modeling. , 2020, , .		0
369	A High-order Accurate Scheme for the Dispersive Maxwell's Equations and Material Interfaces on Overset Grids. , 2020, , .		0