Vlad Shalaev

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/1904982/publications.pdf

Version: 2024-02-01

535 papers	46,612 citations	1883 102 h-index	1974 206 g-index
550 all docs	550 docs citations	550 times ranked	24986 citing authors

#	Article	IF	Citations
1	Optical negative-index metamaterials. Nature Photonics, 2007, 1, 41-48.	15.6	2,568
2	Planar Photonics with Metasurfaces. Science, 2013, 339, 1232009.	6.0	2,352
3	Demonstration of a spaser-based nanolaser. Nature, 2009, 460, 1110-1112.	13.7	1,925
4	Optical cloaking with metamaterials. Nature Photonics, 2007, 1, 224-227.	15.6	1,887
5	Alternative Plasmonic Materials: Beyond Gold and Silver. Advanced Materials, 2013, 25, 3264-3294.	11.1	1,786
6	Searching for better plasmonic materials. Laser and Photonics Reviews, 2010, 4, 795-808.	4.4	1,700
7	Negative index of refraction in optical metamaterials. Optics Letters, 2005, 30, 3356.	1.7	1,536
8	Broadband Light Bending with Plasmonic Nanoantennas. Science, 2012, 335, 427-427.	6.0	1,291
9	Metasurface holograms for visible light. Nature Communications, 2013, 4, .	5.8	1,167
10	Loss-free and active optical negative-index metamaterials. Nature, 2010, 466, 735-738.	13.7	729
11	Optical Metamaterials. , 2010, , .		619
12	Refractory Plasmonics with Titanium Nitride: Broadband Metamaterial Absorber. Advanced Materials, 2014, 26, 7959-7965.	11.1	603
13	Spatiotemporal light control with active metasurfaces. Science, 2019, 364, .	6.0	581
14	Ultra-thin, planar, Babinet-inverted plasmonic metalenses. Light: Science and Applications, 2013, 2, e72-e72.	7.7	576
15	The Case for Plasmonics. Science, 2010, 328, 440-441.	6.0	524
16	Engineering photonic density of states using metamaterials. Applied Physics B: Lasers and Optics, 2010, 100, 215-218.	1.1	392
17	Broadband High-Efficiency Half-Wave Plate: A Supercell-Based Plasmonic Metasurface Approach. ACS Nano, 2015, 9, 4111-4119.	7.3	387
18	Resonant Field Enhancements from Metal Nanoparticle Arrays. Nano Letters, 2004, 4, 153-158.	4.5	374

#	Article	IF	Citations
19	Electromagnetic properties of small-particle composites. Physics Reports, 1996, 272, 61-137.	10.3	351
20	Enhanced Nonlinear Refractive Index in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Îµ</mml:mi></mml:math>-Near-Zero Materials. Physical Review Letters, 2016, 116, 233901.	2.9	348
21	Experimental Observation of Localized Optical Excitations in Random Metal-Dielectric Films. Physical Review Letters, 1999, 82, 4520-4523.	2.9	338
22	Refractory Plasmonics. Science, 2014, 344, 263-264.	6.0	337
23	Nanoparticle plasmonics: going practical with transition metal nitrides. Materials Today, 2015, 18, 227-237.	8.3	318
24	Low-loss plasmon-assisted electro-optic modulator. Nature, 2018, 556, 483-486.	13.7	312
25	Efficient Light Bending with Isotropic Metamaterial Huygensâ€™ Surfaces. Nano Letters, 2014, 14, 2491-2497.	4.5	310
26	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
27	Electromagnetic field fluctuations and optical nonlinearities in metal-dielectric composites. Physics Reports, 2000, 335, 275-371.	10.3	286
28	Epsilon-near-zero Al-doped ZnO for ultrafast switching at telecom wavelengths. Optica, 2015, 2, 616.	4.8	280
29	Near-field optical spectroscopy of individual surface-plasmon modes in colloid clusters. Physical Review B, 1999, 59, 10903-10909.	1.1	278
30	Nonmagnetic cloak with minimized scattering. Applied Physics Letters, 2007, 91, .	1.5	272
31	Metamagnetics with rainbow colors. Optics Express, 2007, 15, 3333.	1.7	265
32	Fabrication of optical negative-index metamaterials: Recent advances and outlook. Metamaterials, 2008, 2, 1-17.	2.2	263
33	Enhanced Raman scattering by fractal clusters: Scale-invariant theory. Physical Review B, 1992, 46, 2821-2830.	1.1	260
34	Time-varying metasurfaces and Lorentz non-reciprocity. Optical Materials Express, 2015, 5, 2459.	1.6	258
35	The Ag dielectric function in plasmonic metamaterials. Optics Express, 2008, 16, 1186.	1.7	254
36	Local Heating with Lithographically Fabricated Plasmonic Titanium Nitride Nanoparticles. Nano Letters, 2013, 13, 6078-6083.	4.5	253

#	Article	IF	Citations
37	Highly Broadband Absorber Using Plasmonic Titanium Carbide (MXene). ACS Photonics, 2018, 5, 1115-1122.	3.2	252
38	Formation of Bound States in the Continuum in Hybrid Plasmonic-Photonic Systems. Physical Review Letters, 2018, 121, 253901.	2.9	252
39	Plasmon modes and negative refraction in metal nanowire composites. Optics Express, 2003, 11, 735.	1.7	251
40	All-dielectric subwavelength metasurface focusing lens. Optics Express, 2014, 22, 26212.	1.7	251
41	Transforming Light. Science, 2008, 322, 384-386.	6.0	249
42	Broadband Hotâ€Electron Collection for Solar Water Splitting with Plasmonic Titanium Nitride. Advanced Optical Materials, 2017, 5, 1601031.	3.6	248
43	Roadmap on plasmonics. Journal of Optics (United Kingdom), 2018, 20, 043001.	1.0	240
44	Ultra-thin ultra-smooth and low-loss silver films on a germanium wetting layer. Optics Express, 2010, 18, 5124.	1.7	237
45	Photon scanning tunneling microscopy images of optical excitations of fractal metal colloid clusters. Physical Review Letters, 1994, 72, 4149-4152.	2.9	235
46	Near-zero-index materials for photonics. Nature Reviews Materials, 2019, 4, 742-760.	23.3	234
47	Long-range and rapid transport of individual nano-objects by a hybrid electrothermoplasmonic nanotweezer. Nature Nanotechnology, 2016, 11, 53-59.	15.6	231
48	Nonlinear optics of random metal-dielectric films. Physical Review B, 1998, 57, 13265-13288.	1.1	227
49	Enhancement of surface plasmons in an Ag aggregate by optical gain in a dielectric medium. Optics Letters, 2006, 31, 3022.	1.7	221
50	Compensating losses in negative-index metamaterials by optical parametric amplification. Optics Letters, 2006, 31, 2169.	1.7	218
51	Nonlinear Optics of Random Media. Springer Tracts in Modern Physics, 2000, , .	0.1	214
52	PLASMON MODES IN METAL NANOWIRES AND LEFT-HANDED MATERIALS. Journal of Nonlinear Optical Physics and Materials, 2002, 11, 65-74.	1.1	211
53	Small-particle composites. I. Linear optical properties. Physical Review B, 1996, 53, 2425-2436.	1.1	202
54	Electrical Modulation of Fano Resonance in Plasmonic Nanostructures Using Graphene. Nano Letters, 2014, 14, 78-82.	4.5	200

#	Article	IF	Citations
55	Epitaxial superlattices with titanium nitride as a plasmonic component for optical hyperbolic metamaterials. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 7546-7551.	3.3	198
56	A negative permeability material at red light. Optics Express, 2007, 15, 1076.	1.7	192
57	Ten years of spasers and plasmonic nanolasers. Light: Science and Applications, 2020, 9, 90.	7.7	192
58	Dual-band negative index metamaterial: double negative at 813 nm and single negative at 772 nm. Optics Letters, 2007, 32, 1671.	1.7	188
59	Anisotropic Metamaterials Emulated by Tapered Waveguides: Application to Optical Cloaking. Physical Review Letters, 2009, 102, 213901.	2.9	181
60	Enhanced localized fluorescence in plasmonic nanoantennae. Applied Physics Letters, 2008, 92, .	1.5	178
61	Drude Relaxation Rate in Grained Gold Nanoantennas. Nano Letters, 2010, 10, 916-922.	4.5	176
62	Engineering space for light via transformation optics. Optics Letters, 2008, 33, 43.	1.7	168
63	Designs for optical cloaking with high-order transformations. Optics Express, 2008, 16, 5444.	1.7	168
64	Liquid crystal clad near-infrared metamaterials with tunable negative-zero-positive refractive indices. Optics Express, 2007, 15, 3342.	1.7	166
65	Wavelength-Tunable Spasing in the Visible. Nano Letters, 2013, 13, 4106-4112.	4.5	166
66	Random lasing in bone tissue. Optics Letters, 2010, 35, 1425.	1.7	163
67	Plasmonics Goes Quantum. Science, 2011, 334, 463-464.	6.0	160
68	Plasmonâ€Enhanced Photoelectrochemical Water Splitting for Efficient Renewable Energy Storage. Advanced Materials, 2019, 31, e1805513.	11.1	159
69	Tunable magnetic response of metamaterials. Applied Physics Letters, 2009, 95, 033115.	1.5	154
70	Improving the radiative decay rate for dye molecules with hyperbolic metamaterials. Optics Express, 2012, 20, 8100.	1.7	152
71	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
72	Machine-learning-assisted metasurface design for high-efficiency thermal emitter optimization. Applied Physics Reviews, 2020, 7, .	5.5	147

#	Article	IF	Citations
73	Yellow-light negative-index metamaterials. Optics Letters, 2009, 34, 3478.	1.7	146
74	Roadmap on metasurfaces. Journal of Optics (United Kingdom), 2019, 21, 073002.	1.0	146
75	Subâ€wavelength interference pattern from volume plasmon polaritons in a hyperbolic medium. Laser and Photonics Reviews, 2013, 7, 265-271.	4.4	144
76	Superlens based on metal-dielectric composites. Physical Review B, 2005, 72, .	1.1	143
77	Temperature-Dependent Optical Properties of Plasmonic Titanium Nitride Thin Films. ACS Photonics, 2017, 4, 1413-1420.	3.2	143
78	Photonic spin Hall effect in gapâ€“plasmon metasurfaces for on-chip chiroptical spectroscopy. Optica, 2015, 2, 860.	4.8	141
79	Temperature-dependent optical properties of gold thin films. Optical Materials Express, 2016, 6, 2776.	1.6	141
80	Gold Nanorod Arrays as Plasmonic Cavity Resonators. ACS Nano, 2008, 2, 2569-2576.	7.3	138
81	Colors with plasmonic nanostructures: A full-spectrum review. Applied Physics Reviews, 2019, 6, .	5.5	136
82	Small-particle composites. II. Nonlinear optical properties. Physical Review B, 1996, 53, 2437-2449.	1.1	134
83	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
84	Plasmonic nanoantenna arrays for the visible. Metamaterials, 2008, 2, 45-51.	2.2	131
85	High-efficiency broadband achromatic metalens for near-IR biological imaging window. Nature Communications, 2021, 12, 5560.	5.8	130
86	Fractals in Microcavities: Giant Coupled, Multiplicative Enhancement of Optical Responses. Physical Review Letters, 1999, 82, 4811-4814.	2.9	126
87	Loss-compensated and active hyperbolic metamaterials. Optics Express, 2011, 19, 25242.	1.7	126
88	Tunable optical negative-index metamaterials employing anisotropic liquid crystals. Applied Physics Letters, 2007, 91, .	1.5	125
89	Towards CMOS-compatible nanophotonics: Ultra-compact modulators using alternative plasmonic materials. Optics Express, 2013, 21, 27326.	1.7	125
90	Material platforms for optical metasurfaces. Nanophotonics, 2018, 7, 959-987.	2.9	122

#	Article	IF	Citations
91	Ultrabright Room-Temperature Sub-Nanosecond Emission from Single Nitrogen-Vacancy Centers Coupled to Nanopatch Antennas. Nano Letters, 2018, 18, 4837-4844.	4.5	121
92	Roadmap on optical metamaterials. Journal of Optics (United Kingdom), 2016, 18, 093005.	1.0	118
93	Negative-Index Metamaterials: Going Optical. IEEE Journal of Selected Topics in Quantum Electronics, 2006, 12, 1106-1115.	1.9	117
94	Spatiotemporal light control with frequency-gradient metasurfaces. Science, 2019, 365, 374-377.	6.0	117
95	Nanoantenna array-induced fluorescence enhancement and reduced lifetimes. New Journal of Physics, 2008, 10, 125022.	1.2	112
96	Examining nanophotonics for integrated hybrid systems: a review of plasmonic interconnects and modulators using traditional and alternative materials [Invited]. Journal of the Optical Society of America B: Optical Physics, 2015, 32, 121.	0.9	111
97	Experimental verification of an optical negative-index material. Laser Physics Letters, 2006, 3, 49-55.	0.6	110
98	Material platforms for integrated quantum photonics. Optical Materials Express, 2017, 7, 111.	1.6	109
99	Optically Active Metasurface with Non-Chiral Plasmonic Nanoantennas. Nano Letters, 2014, 14, 4426-4431.	4.5	108
100	Spectral Dependence of Selective Photomodification in Fractal Aggregates of Colloidal Particles. Physical Review Letters, 1998, 80, 1102-1105.	2.9	107
101	Enhanced Graphene Photodetector with Fractal Metasurface. Nano Letters, 2017, 17, 57-62.	4.5	106
102	Growth, morphology, and optical and electrical properties of semicontinuous metallic films. Physical Review B, 2003, 67, .	1.1	104
103	Negative index metamaterial combining magnetic resonators with metal films. Optics Express, 2006, 14, 7872.	1.7	104
104	Solar-Powered Plasmon-Enhanced Heterogeneous Catalysis. Nanophotonics, 2016, 5, 112-133.	2.9	102
105	Surface-Enhanced Raman Difference between Human Insulin and Insulin Lispro Detected with Adaptive Nanostructures. Journal of Physical Chemistry B, 2004, 108, 18046-18052.	1.2	101
106	Metamaterials: electromagnetic enhancement at zero-index transition. Optics Letters, 2008, 33, 2350.	1.7	101
107	Colloidal Plasmonic Titanium Nitride Nanoparticles: Properties and Applications. Nanophotonics, 2015, 4, 269-276.	2.9	100
108	Determining plasmonic hot-carrier energy distributions via single-molecule transport measurements. Science, 2020, 369, 423-426.	6.0	100

#	Article	IF	Citations
109	Magnetic plasmon resonance. Physical Review E, 2006, 73, 036609.	0.8	98
110	Optical Time Reversal from Time-Dependent Epsilon-Near-Zero Media. Physical Review Letters, 2018, 120, 043902.	2.9	98
111	Resonant light interaction with plasmonic nanowire systems. Journal of Optics, 2005, 7, S32-S37.	1.5	97
112	Ultrathin and multicolour optical cavities with embedded metasurfaces. Nature Communications, 2018, 9, 2673.	5.8	97
113	Optical Properties of Plasmonic Ultrathin TiN Films. Advanced Optical Materials, 2017, 5, 1700065.	3.6	95
114	Anderson localization of surface plasmons and nonlinear optics of metal-dielectric composites. Physical Review B, 1999, 60, 16389-16408.	1.1	94
115	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
116	Plasmonics on the slope of enlightenment: the role of transition metal nitrides. Faraday Discussions, 2015, 178, 71-86.	1.6	92
117	Size Dependent Ï‡(3) for Conduction Electrons in Ag Nanoparticles. Nano Letters, 2004, 4, 1535-1539.	4.5	91
118	Highâ€Performance Doped Silver Films: Overcoming Fundamental Material Limits for Nanophotonic Applications. Advanced Materials, 2017, 29, 1605177.	11.1	90
119	Theory of giant Raman scattering from semicontinuous metal films. Physical Review B, 1997, 55, 13234-13245.	1.1	88
120	Evolution of Metallicity in Vanadium Dioxide by Creation of Oxygen Vacancies. Physical Review Applied, 2017, 7, .	1.5	88
121	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
122	Applying plasmonics to a sustainable future. Science, 2017, 356, 908-909.	6.0	85
123	Holey-Metal Lenses: Sieving Single Modes with Proper Phases. Nano Letters, 2013, 13, 159-163.	4.5	84
124	Overcoming quantum decoherence with plasmonics. Science, 2019, 364, 532-533.	6.0	84
125	Coexistence of Localized and Delocalized Surface Plasmon Modes in Percolating Metal Films. Physical Review Letters, 2006, 97, 206103.	2.9	80
126	Direct observation of localized dipolar excitations on rough nanostructured surfaces. Physical Review B, 1998, 58, 11441-11448.	1.1	79

#	Article	IF	Citations
127	Near-field optical studies of semicontinuous metal films. Physical Review B, 2001, 64, .	1.1	78
128	Metal nanoslit lenses with polarization-selective design. Optics Letters, 2011, 36, 451.	1.7	78
129	Transformation optics and metamaterials. Physics-Uspekhi, 2011, 54, 53-63.	0.8	76
130	Experimental demonstration of titanium nitride plasmonic interconnects. Optics Express, 2014, 22, 12238.	1.7	76
131	Adiabatic frequency shifting in epsilon-near-zero materials: the role of group velocity. Optica, 2020, 7, 226.	4.8	76
132	Second harmonic generation in left-handed metamaterials. Laser Physics Letters, 2006, 3, 293-297.	0.6	75
133	Controlling the Plasmonic Properties of Ultrathin TiN Films at the Atomic Level. ACS Photonics, 2018, 5, 2816-2824.	3.2	74
134	Machine learningâ€“assisted global optimization of photonic devices. Nanophotonics, 2020, 10, 371-383.	2.9	74
135	Plasmonicsâ€”turning loss into gain. Science, 2016, 351, 334-335.	6.0	73
136	Near-field excitation of nanoantenna resonance. Optics Express, 2007, 15, 13682.	1.7	72
137	Highly directional spaser array for the red wavelength region. Laser and Photonics Reviews, 2014, 8, 896-903.	4.4	69
138	Negative Refraction in Time-Varying Strongly Coupled Plasmonic-Antennaâ€“Epsilon-Near-Zero Systems. Physical Review Letters, 2020, 124, 043902.	2.9	69
139	Broadband enhancement of spontaneous emission from nitrogen-vacancy centers in nanodiamonds by hyperbolic metamaterials. Applied Physics Letters, 2013, 102, 173114.	1.5	68
140	Evolution of photonic metasurfaces: from static to dynamic. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 501.	0.9	68
141	Frequency-domain simulations of a negative-index material with embedded gain. Optics Express, 2009, 17, 24060.	1.7	67
142	Graphene: A Dynamic Platform for Electrical Control of Plasmonic Resonance. Nanophotonics, 2015, 4, 214-223.	2.9	67
143	All that glitters need not be gold. Science, 2015, 347, 1308-1310.	6.0	66
144	Controlling Random Lasing with Three-Dimensional Plasmonic Nanorod Metamaterials. Nano Letters, 2016, 16, 2471-2477.	4.5	66

#	Article	IF	Citations
145	Nonlinear optics of metal fractal clusters. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1990, 17, 283-289.	1.0	64
146	Resonant transmittance through metal films with fabricated and light-induced modulation. Physical Review B, 2003, 67, .	1.1	64
147	Near-infrared metamaterials with dual-band negative-index characteristics. Optics Express, 2007, 15, 1647.	1.7	64
148	Quasi-coherent thermal emitter based on refractory plasmonic materials. Optical Materials Express, 2015, 5, 2721.	1.6	64
149	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
150	Nanolasers Enabled by Metallic Nanoparticles: From Spasers to Random Lasers. Laser and Photonics Reviews, 2017, 11, 1700212.	4.4	63
151	Transformation optics: approaching broadband electromagnetic cloaking. New Journal of Physics, 2008, 10, 115029.	1.2	61
152	Adaptive silver films for surface-enhanced Raman spectroscopy of biomolecules. Journal of Raman Spectroscopy, 2005, 36, 648-656.	1.2	60
153	Effect of an optical negative index thin film on optical bistability. Optics Letters, 2007, 32, 151.	1.7	60
154	Temperature-Dependent Optical Properties of Single Crystalline and Polycrystalline Silver Thin Films. ACS Photonics, 2017, 4, 1083-1091.	3.2	60
155	Experimental observation of the trapped rainbow. Applied Physics Letters, 2010, 96, 211121.	1.5	59
156	Hybrid Plasmonic Bullseye Antennas for Efficient Photon Collection. ACS Photonics, 2018, 5, 692-698.	3.2	59
157	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
158	Ultrafast quantum photonics enabled by coupling plasmonic nanocavities to strongly radiative antennas. Optica, 2020, 7, 463.	4.8	58
159	Resonant light scattering by fractal clusters. Physical Review B, 1991, 44, 12216-12225.	1.1	57
160	Electrodynamics of metal-dielectric composites and electromagnetic crystals. Physical Review B, 2000, 62, 8531-8539.	1.1	57
161	Random laser spectroscopy for nanoscale perturbation sensing. Optics Letters, 2010, 35, 2624.	1.7	56
162	Controlling the Polarization State of Light with Plasmonic Metal Oxide Metasurface. ACS Nano, 2016, 10, 9326-9333.	7.3	56

#	Article	IF	Citations
163	Enhancing the graphene photocurrent using surface plasmons and a p-n junction. Light: Science and Applications, 2020, 9, 126.	7.7	56
164	Enabling Optical Steganography, Data Storage, and Encryption with Plasmonic Colors. Laser and Photonics Reviews, 2021, 15, 2000343.	4.4	56
165	Adaptive Silver Films for Detection of Antibodyâ˜Antigen Binding. Langmuir, 2005, 21, 8368-8373.	1.6	55
166	Unidirectional Spaser in Symmetry-Broken Plasmonic Core-Shell Nanocavity. Scientific Reports, 2013, 3, 1241.	1.6	55
167	Fractals: optical susceptibility and giant raman scattering. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1988, 10, 71-79.	1.0	54
168	Optical properties of self-affine thin films. Physical Review B, 1996, 54, 8235-8242.	1.1	54
169	Experimental observation of percolation-enhanced nonlinear light scattering from semicontinuous metal films. Physical Review B, 2001, 64, .	1.1	54
170	Light-induced kinetic effects in solids. Physical Review B, 1996, 53, 11388-11402.	1.1	53
171	Large local optical activity in fractal aggregates of nanoparticles. Journal of the Optical Society of America B: Optical Physics, 2001, 18, 1896.	0.9	53
172	Optical Properties of Gallium-Doped Zinc Oxideâ€"A Low-Loss Plasmonic Material: First-Principles Theory and Experiment. Physical Review X, 2013, 3, .	2.8	53
173	Near-Field Intensity Correlations in Semicontinuous Metal-Dielectric Films. Physical Review Letters, 2005, 94, 226101.	2.9	52
174	Maxwell fish-eye and Eaton lenses emulated by microdroplets. Optics Letters, 2010, 35, 3396.	1.7	52
175	TiN/(Al,Sc)N metal/dielectric superlattices and multilayers as hyperbolic metamaterials in the visible spectral range. Physical Review B, 2014, 90, .	1.1	52
176	Single and Multiâ€Mode Directional Lasing from Arrays of Dielectric Nanoresonators. Laser and Photonics Reviews, 2021, 15, 2000411.	4.4	51
177	Resonant excitations and nonlinear optics of fractals. Physica A: Statistical Mechanics and Its Applications, 1992, 185, 181-186.	1.2	50
178	Spectroscopic studies of liquid solutions of R6G laser dye and Ag nanoparticle aggregates. Journal of Optics, 2005, 7, S219-S229.	1.5	50
179	Effective third-order nonlinearities in metallic refractory titanium nitride thin films. Optical Materials Express, 2015, 5, 2395.	1.6	50
180	Ultrathin, ultrasmooth, and low-loss silver films via wetting and annealing. Applied Physics Letters, 2010, 97, .	1.5	49

#	Article	IF	Citations
181	Lasing Action with Gold Nanorod Hyperbolic Metamaterials. ACS Photonics, 2017, 4, 674-680.	3.2	49
182	Solar Thermoplasmonic Nanofurnace for High-Temperature Heterogeneous Catalysis. Nano Letters, 2020, 20, 3663-3672.	4.5	49
183	Dynamic Control of Nanocavities with Tunable Metal Oxides. Nano Letters, 2018, 18, 740-746.	4.5	48
184	Fractals: Localization of dipole excitations and giant optical polarizabilities. Physica A: Statistical Mechanics and Its Applications, 1994, 207, 197-207.	1.2	47
185	Enhanced Raman scattering from self-affine thin films. Optics Letters, 1996, 21, 1628.	1.7	47
186	Four-wave mixing, quantum control, and compensating losses in doped negative-index photonic metamaterials. Optics Letters, 2007, 32, 3044.	1.7	47
187	FDTD modeling of realistic semicontinuous metal films. Applied Physics B: Lasers and Optics, 2010, 100, 159-168.	1.1	47
188	High-Resolution Large-Ensemble Nanoparticle Trapping with Multifunctional Thermoplasmonic Nanohole Metasurface. ACS Nano, 2018, 12, 5376-5384.	7.3	47
189	Photonic metamaterials. Laser Physics Letters, 2008, 5, 411-420.	0.6	46
190	Broadband Ultrafast Dynamics of Refractory Metals: TiN and ZrN. Advanced Optical Materials, 2020, 8, 2000652.	3.6	45
191	Creating Quantum Emitters in Hexagonal Boron Nitride Deterministically on Chip-Compatible Substrates. Nano Letters, 2021, 21, 8182-8189.	4.5	45
192	Giant Stokes fields on semicontinuous metal films. Journal of the Optical Society of America B: Optical Physics, 1998, 15, 68.	0.9	44
193	Enhancement of spontaneous and stimulated emission of a rhodamine 6G dye by an Ag aggregate. Physical Review B, 2006, 74, .	1.1	44
194	Two-photon electron emission from smooth and rough metal films in the threshold region. Physical Review B, 1996, 53, 11193-11206.	1.1	43
195	Localization of collective dipole excitations on fractals. Physical Review B, 1993, 48, 6662-6664.	1.1	42
196	Beyond diffraction. Nature, 2007, 447, 266-267.	13.7	42
197	Plasmonic Titanium Nitride Nanostructures via Nitridation of Nanopatterned Titanium Dioxide. Advanced Optical Materials, 2017, 5, 1600717.	3.6	42
198	Degenerate optical nonlinear enhancement in epsilon-near-zero transparent conducting oxides. Optical Materials Express, 2018, 8, 3392.	1.6	42

#	Article	IF	Citations
199	Fractals: giant impurity nonlinearities in optics of fractal clusters. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1988, 10, 81-92.	1.0	39
200	Plasmon resonance in multilayer graphene nanoribbons. Laser and Photonics Reviews, 2015, 9, 650-655.	4.4	39
201	TiN@TiO₂Coreâ€“Shell Nanoparticles as Plasmonâ€Enhanced Photosensitizers: The Role of Hot Electron Injection. Laser and Photonics Reviews, 2020, 14, 1900376.	4.4	39
202	Reduced optical losses in refractory plasmonic titanium nitride thin films deposited with molecular beam epitaxy. Optical Materials Express, 2020, 10, 2679.	1.6	39
203	Local electric and magnetic fields in semicontinuous metal films: Beyond the quasistatic approximation. Physical Review B, 2000, 62, 11230-11244.	1.1	38
204	Broadband, Highâ€Speed, and Largeâ€Amplitude Dynamic Optical Switching with Yttriumâ€Doped Cadmium Oxide. Advanced Functional Materials, 2020, 30, 1908377.	7.8	38
205	Mid-IR plasmonics and photomodification with Ag films. Applied Physics B: Lasers and Optics, 2008, 93, 59-68.	1.1	37
206	Toward superlensing with metalâ€“dielectric composites andÂmultilayers. Applied Physics B: Lasers and Optics, 2010, 100, 93-100.	1.1	37
207	Plasmon localization and local field distribution in metal-dielectric films. Physical Review E, 2003, 67, 056611.	0.8	36
208	Quantum size effect in two-photon excited luminescence from silver nanoparticles. Physical Review B, 2004, 69, .	1.1	36
209	On-Chip Hybrid Photonic-Plasmonic Waveguides with Ultrathin Titanium Nitride Films. ACS Photonics, 2018, 5, 4423-4431.	3.2	36
210	Transdimensional Photonics. ACS Photonics, 2019, 6, 1-3.	3.2	36
211	Surface plasmon excitation and correlation-induced localization-delocalization transition in semicontinuous metal films. Physical Review B, 2005, 72, .	1.1	35
212	Double-resonant optical materials with embedded metal nanostructures. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 535.	0.9	35
213	Loss as a route to transparency. Nature Photonics, 2009, 3, 75-75.	15.6	35
214	Universal features of the optical properties of ultrathin plasmonic films. Optical Materials Express, 2017, 7, 3731.	1.6	35
215	Surface-plasmon opto-magnetic field enhancement for all-optical magnetization switching. Optical Materials Express, 2017, 7, 4316.	1.6	35
216	Photonic Spin Hall Effect in Robust Phase Gradient Metasurfaces Utilizing Transition Metal Nitrides. ACS Photonics, 2019, 6, 99-106.	3.2	35

#	ARTICLE	IF	CITATIONS
217	Broad Frequency Shift of Parametric Processes in Epsilon-Near-Zero Time-Varying Media. Applied Sciences (Switzerland), 2020, 10, 1318.	1.3	35
218	Achieving full-color generation with polarization-tunable perfect light absorption. Optical Materials Express, 2019, 9, 779.	1.6	35
219	Nonlinear optical phenomena on rough surfaces of metal thin films. Physical Review B, 1998, 57, 14901-14913.	1.1	34
220	Optical Metamagnetism and Negative-Index Metamaterials. MRS Bulletin, 2008, 33, 921-926.	1.7	34
221	Transparent conducting oxides: from all-dielectric plasmonics to a new paradigm in integrated photonics. Advances in Optics and Photonics, 2022, 14, 148.	12.1	34
222	Field work and dispersion relations of excitations on fractals. Physical Review B, 1991, 44, 115-121.	1.1	33
223	Metamaterials: transforming theory into reality. Journal of the Optical Society of America B: Optical Physics, 2009, 26, B161.	0.9	33
224	OPTICAL NONLINEARITIES OF METAL-DIELECTRIC COMPOSITES. Journal of Nonlinear Optical Physics and Materials, 1999, 08, 191-210.	1.1	30
225	Accelerating light with metasurfaces. Optica, 2018, 5, 678.	4.8	30
226	Machine Learning for Integrated Quantum Photonics. ACS Photonics, 2021, 8, 34-46.	3.2	30
227	Dynamic nanophotonics [Invited]. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 95.	0.9	30
228	Room-temperature single-photon emitters in silicon nitride. Science Advances, 2021, 7, eabj0627.	4.7	30
229	Chapter 1 Negative refractive index metamaterials in optics. Progress in Optics, 2008, 51, 1-67.	0.4	29
230	Synchrotron radiation from an accelerating light pulse. Science, 2018, 362, 439-442.	6.0	29
231	Plasmonic Biomimetic Nanocomposite with Spontaneous Subwavelength Structuring as Broadband Absorbers. ACS Energy Letters, 2018, 3, 1578-1583.	8.8	29
232	Direct observation of locally enhanced electromagnetic field. Physica B: Condensed Matter, 2000, 279, 52-55.	1.3	28
233	METAL-DIELECTRIC COMPOSITE FILTERS WITH CONTROLLED SPECTRAL WINDOWS OF TRANSPARENCY. Journal of Nonlinear Optical Physics and Materials, 2003, 12, 419-440.	1.1	28
234	Microscopic mirrorless negative-index optical parametric oscillator. Optics Letters, 2009, 34, 1165.	1.7	28

#	Article	IF	Citations
235	Spatial and Temporal Nanoscale Plasmonic Heating Quantified by Thermoreflectance. Nano Letters, 2019, 19, 3796-3803.	4.5	28
236	PERCOLATION AND FRACTAL COMPOSITES: OPTICAL STUDIES. Journal of Nonlinear Optical Physics and Materials, 2000, 09, 105-116.	1.1	27
237	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
238	Development of Optical Metasurfaces: Emerging Concepts and New Materials. Proceedings of the IEEE, 2016, 104, 2270-2287.	16.4	27
239	Rapid Classification of Quantum Sources Enabled by Machine Learning. Advanced Quantum Technologies, 2020, 3, 2000067.	1.8	27
240	Materializing a binary hyperlens design. Applied Physics Letters, 2009, 94, .	1.5	26
241	Adiabatically Tapered Hyperbolic Metamaterials for Dispersion Control of High-k Waves. Nano Letters, 2015, 15, 498-505.	4.5	26
242	Suppression of near-field coupling in plasmonic antennas on epsilon-near-zero substrates. Optica, 2018, 5, 1557.	4.8	26
243	Bianisotropic Effective Parameters of Optical Metamagnetics and Negative-Index Materials. Proceedings of the IEEE, 2011, 99, 1691-1700.	16.4	25
244	Gyroidal titanium nitride as nonmetallic metamaterial. Optical Materials Express, 2015, 5, 1316.	1.6	25
245	Hybrid plasmonic waveguides formed by metal coating of dielectric ridges. Optics Express, 2017, 25, 12295.	1.7	25
246	Optical Nonlinearities of Fractal Composites. , 2002, , 93-114.		24
247	Translation of nanoantenna hot spots by a metal-dielectric composite superlens. Applied Physics Letters, 2009, 95, 033114.	1.5	23
248	Homogenization of bi-anisotropic metasurfaces. Optics Express, 2013, 21, 21941.	1.7	23
249	Low-threshold lasing and broad-band multiphoton-excited light emission from Ag aggregate-adsorbate complexes in microcavity. Journal of Modern Optics, 2002, 49, 645-662.	0.6	22
250	High-harmonic generation in metallic titanium nitride. Nature Communications, 2021, 12, 4981.	5.8	22
251	Challenges and prospects of plasmonic metasurfaces for photothermal catalysis. Nanophotonics, 2022, 11, 3035-3056.	2.9	22
252	Enhanced transmission in near-field imaging of layered plasmonic structures. Optics Express, 2004, 12, 3701.	1.7	21

#	Article	IF	Citations
253	Lithography-Free Plasmonic Color Printing with Femtosecond Laser on Semicontinuous Silver Films. ACS Photonics, 2021, 8, 521-530.	3.2	21
254	Scattering and localization of light on fractals. Physica A: Statistical Mechanics and Its Applications, 1992, 191, 352-357.	1.2	20
255	Second harmonic generation with plasmonic metasurfaces: direct comparison of electric and magnetic resonances. Optical Materials Express, 2015, 5, 2682.	1.6	20
256	Electron spin contrast of Purcell-enhanced nitrogen-vacancy ensembles in nanodiamonds. Physical Review B, 2017, 96, .	1.1	20
257	Gap-plasmon enhanced water splitting with ultrathin hematite films: the role of plasmonic-based light trapping and hot electrons. Faraday Discussions, 2019, 214, 283-295.	1.6	20
258	Plasmonic and phononic properties of epitaxial conductive transition metal nitrides. Journal of Optics (United Kingdom), 2020, 22, 084001.	1.0	20
259	Extraordinarily large permittivity modulation in zinc oxide for dynamic nanophotonics. Materials Today, 2021, 43, 27-36.	8.3	20
260	Absorption of light by soot particles in micro-droplets of water. Journal of Quantitative Spectroscopy and Radiative Transfer, 1999, 63, 321-339.	1.1	19
261	Light-induced drift of electrons in metals. Physics Letters, Section A: General, Atomic and Solid State Physics, 1992, 169, 205-210.	0.9	18
262	Near-field optical study of selective photomodification of fractal aggregates. Journal of the Optical Society of America B: Optical Physics, 2001, 18, 698.	0.9	18
263	Plasmon-enhanced absorption by optical phonons in metal-dielectric composites. Europhysics Letters, 2001, 53, 364-370.	0.7	18
264	Percolation-enhanced nonlinear scattering from metal-dielectric composites. Physical Review E, 1999, 59, 7239-7242.	0.8	17
265	Optical absorption of hyperbolic metamaterial with stochastic surfaces. Optics Express, 2014, 22, 8893.	1.7	17
266	Superconducting detector for visible and near-infrared quantum emitters [Invited]. Optical Materials Express, 2017, 7, 513.	1.6	17
267	Photonic topological phase transition on demand. Nanophotonics, 2019, 8, 1349-1356.	2.9	17
268	Transdimensional epsilon-near-zero modes in planar plasmonic nanostructures. Physical Review Research, 2020, 2, .	1.3	17
269	Thickness-Dependent Drude Plasma Frequency in Transdimensional Plasmonic TiN. Nano Letters, 2022, 22, 4622-4629.	4.5	17
270	Shalaev and Moskovits Reply:. Physical Review Letters, 1995, 75, 2451-2451.	2.9	16

#	Article	IF	Citations
271	Focus Issue on Metamaterials. Journal of the Optical Society of America B: Optical Physics, 2006, 23, 386.	0.9	16
272	Plasmonic and new plasmonic materials: general discussion. Faraday Discussions, 2015, 178, 123-149.	1.6	16
273	Giant high-order field moments in metalâ€“dielectric composites. Physica A: Statistical Mechanics and Its Applications, 1999, 266, 115-122.	1.2	15
274	Magnetic resonance in metal nanoantennas. , 2004, 5508, 128.		15
275	Light diffraction by a subwavelength circular aperture. Laser Physics Letters, 2005, 2, 351-355.	0.6	15
276	Effect of Ag aggregate on spectroscopic properties of Eu: Y2O3 nanoparticles. Journal of Modern Optics, 2005, 52, 2331-2341.	0.6	15
277	Saturation effect in the optical response of Ag-nanoparticle fractal aggregates. Physical Review B, 2006, 73, .	1.1	15
278	Near-field, broadband optical spectroscopy of metamaterials. Physica B: Condensed Matter, 2007, 394, 137-140.	1.3	15
279	Characterization of nanodiamonds for metamaterial applications. Applied Physics B: Lasers and Optics, 2011, 105, 191-195.	1.1	15
280	Electron energy loss spectroscopy of plasmon resonances in titanium nitride thin films. Applied Physics Letters, 2016, 108, .	1.5	15
281	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
282	Machine learning framework for quantum sampling of highly constrained, continuous optimization problems. Applied Physics Reviews, 2021, 8, .	5.5	14
283	Geometrical renormalization approach to calculating optical properties of fractal carbonaceous soot. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2001, 18, 1112.	0.8	13
284	Coherent nonlinear optics and quantum control in negative-index metamaterials. Journal of Optics, 2009, 11, 114028.	1.5	13
285	Simplified model for periodic nanoantennae: linear model and inverse design. Optics Express, 2009, 17, 11607.	1.7	13
286	Alternative Plasmonic Materials: Alternative Plasmonic Materials: Beyond Gold and Silver (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10 T	11.1	13
287	Optical response of finite-thickness ultrathin plasmonic films. MRS Communications, 2018, 8, 1092-1097.	0.8	13
288	Tuning Topology of Photonic Systems with Transparent Conducting Oxides. ACS Photonics, 2019, 6, 1922-1930.	3.2	13

#	Article	IF	Citations
289	Efficient Topology-Optimized Couplers for On-Chip Single-Photon Sources. ACS Photonics, 2021, 8, 3061-3068.	3.2	13
290	Nonlinear Optical Phenomena in Nanostructured Fractal Materials. Journal of Nonlinear Optical Physics and Materials, 1998, 07, 131-152.	1.1	12
291	Electromagnetic properties of three-dimensional wire arrays: photons, plasmons, and equivalent circuits. , 2003, , .		12
292	Resonant nonlinear optics of backward waves in negative-index metamaterials. Applied Physics B: Lasers and Optics, 2009, 96, 315-323.	1.1	12
293	Angled physical vapor deposition techniques for non-conformal thin films and three-dimensional structures. MRS Communications, 2016, 6, 17-22.	0.8	12
294	High temperature efficient, stable Si wafer-based selective solar absorbers. Applied Physics Letters, 2017, 110, .	1.5	12
295	Optical Properties of MXenes. , 2019, , 327-346.		12
296	Nonlinearities and carrier dynamics in refractory plasmonic TiN thin films. Optical Materials Express, 2019, 9, 3911.	1.6	12
297	Enhancement of nonlinear processes near rough nanometer-structured surfaces obtained by deposition of fractal colloidal silver aggregates on a plain substrate. Physical Review B, 1999, 60, 10739-10742.	1.1	11
298	Near field enhancement in silver nanoantenna-superlens systems. Applied Physics Letters, 2012, 101, 021109.	1.5	11
299	Engineered nonlinear materials using gold nanoantenna array. Scientific Reports, 2018, 8, 780.	1.6	11
300	Transdimensional material platforms for tunable metasurface design. MRS Bulletin, 2020, 45, 188-195.	1.7	11
301	Remote Sensing of High Temperatures with Refractory, Direct-Contact Optical Metacavity. ACS Photonics, 2020, 7, 472-479.	3.2	11
302	Drift of gases induced by nonmonochromatic light. Applied Physics Berlin, 1981, 25, 347-350.	1.4	10
303	Direct and roughness-induced indirect transitions in photoemission from silver films. Surface Science, 1993, 297, L84-L90.	0.8	10
304	Semicontinuous silver films for protein sensing with SERS. , 2003, 5221, 76.		10
305	Enhancing Photoelectrochemical Energy Storage by Large-Area CdS-Coated Nickel Nanoantenna Arrays. ACS Applied Energy Materials, 2021, 4, 11367-11376.	2.5	10
306	Fractal character and direct and indirect transitions in photoemission from silver films. Physica A: Statistical Mechanics and Its Applications, 1994, 207, 352-359.	1.2	9

#	Article	IF	Citations
307	Nonlinear optics of fractal nanomaterials: Small-particle composites and self-affine thin films. Physica A: Statistical Mechanics and Its Applications, 1997, 241, 249-258.	1.2	9
308	Anderson localization of surface plasmons and Kerr nonlinearity in semicontinuous metal films. Physica B: Condensed Matter, 2000, 279, 87-89.	1.3	9
309	Biomolecule Sensing with Adaptive Plasmonic Nanostructures. , 2006, , 351-366.		9
310	Comment on "Negative refractive index in artificial metamaterials". Optics Letters, 2007, 32, 1510.	1.7	9
311	Frequency-domain modeling of TM wave propagation in optical nanostructures with a third-order nonlinear response. Optics Letters, 2009, 34, 3364.	1.7	9
312	Coherent nonlinear-optical energy transfer and backward-wave optical parametric generation in negative-index metamaterials. Physica B: Condensed Matter, 2010, 405, 2999-3002.	1.3	9
313	Exploring Timeâ€Resolved Multiphysics of Active Plasmonic Systems with Experimentâ€Based Gain Models. Laser and Photonics Reviews, 2019, 13, 1800071.	4.4	9
314	On-Chip Single-Layer Integration of Diamond Spins with Microwave and Plasmonic Channels. ACS Photonics, 2020, 7, 2018-2026.	3.2	9
315	Dynamical Control of Broadband Coherent Absorption in ENZ Films. Micromachines, 2020, 11, 110.	1.4	9
316	Doppler-free spectroscopy and wave-front conjugation by four-wave mixing of nonmonochromatic waves. Applied Physics Berlin, 1980, 21, 93-94.	1.4	8
317	Optical free-induction decay in fractal clusters. Physical Review B, 1994, 50, 12987-12990.	1.1	8
318	Fluctuations of light scattered by fractal clusters. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 1997, 14, 60.	0.8	8
319	Elimination of Doppler broadening at coherently driven quantum transitions. Physical Review A, 1999, 59, R946-R949.	1.0	8
320	Toward a universal extinction spectrum of self-affine silver colloid clusters: Experiment and simulation. Journal of Chemical Physics, 1999, 110, 8080-8083.	1.2	8
321	Near-field optical studies of local photomodification in nanostructured materials. Journal of Microscopy, 1999, 194, 574-577.	0.8	8
322	Metal coverage dependence of local optical properties of semicontinuous metallic films. Journal of Modern Optics, 2002, 49, 2423-2435.	0.6	8
323	Coupling effect in a near-field objectâ€“superlens system. Applied Physics A: Materials Science and Processing, 2012, 107, 83-88.	1.1	8
324	Trapped rainbow techniques for spectroscopy on a chip and fluorescence enhancement. Applied Physics B: Lasers and Optics, 2012, 106, 577-581.	1.1	8

#	Article	IF	Citations
325	Quantifying the local density of optical states of nanorods by fluorescence lifetime imaging. New Journal of Physics, 2014, 16, 063069.	1.2	8
326	Laser-Induced CO₂ Generation from Gold Nanorod-Containing Poly(propylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 707 T Materials & Interfaces, 2018, 10, 26084-26098.	4.0	8
327	Chipâ€Compatible Quantum Plasmonic Launcher. Advanced Optical Materials, 2020, 8, 2000889.	3.6	8
328	Electric field control of interaction between magnons and quantum spin defects. Physical Review Research, 2022, 4, .	1.3	8
329	Optimizing Startshot Lightsail Design: A Generative Network-Based Approach. ACS Photonics, 2022, 9, 190-196.	3.2	8
330	Imaging contrast under aperture tipâ€“nanoantenna array interaction. Applied Physics B: Lasers and Optics, 2008, 93, 189-198.	1.1	7
331	Broadband Transformation Optics Devices. Materials, 2010, 3, 4793-4810.	1.3	7
332	Towards photonic time-crystals: observation of a femtosecond time-boundary in the refractive index. , 2021, , .		7
333	High-temperature, spectrally-selective, scalable, and flexible thin-film Si absorber and emitter. Optical Materials Express, 2020, 10, 208.	1.6	7
334	Understanding all-optical switching at the epsilon-near-zero point: a tutorial review. Applied Physics B: Lasers and Optics, 2022, 128, 1.	1.1	7
335	RESONANT OPTICS OF FRACTALS. Fractals, 1994, 02, 201-209.	1.8	6
336	Photonic Time-Crystals and Momentum Band-Gaps. , 2016, , .		6
337	Near-zero-index ultra-fast pulse characterization. Nature Communications, 2022, 13, .	5.8	6
338	The role of localized surface plasmons in photoemission from silver films: Direct and indirect transition channels. Journal of Electron Spectroscopy and Related Phenomena, 1993, 64-65, 167-175.	0.8	5
339	Fractal-Surface-Enhanced Optical Nonlinearities. ACS Symposium Series, 1997, , 88-107.	0.5	5
340	Optical properties of metal nanowires. , 2003, , .		5
341	Plasmonics: nonlinear optics, negative phase, and transformable transparency. , 2009, , .		5
342	Semiconductor plasmonic metamaterials for near-infrared and telecommunication wavelength. , 2010, , .		5

#	Article	IF	Citations
343	Transformation optics. Journal of Optics (United Kingdom), 2011, 13, 020201-020201.	1.0	5
344	Time-domain modeling of silver nanowires-graphene transparent conducting electrodes. Proceedings of SPIE, 2013, , .	0.8	5
345	Plasmonic Interconnects Using Zirconium Nitride. , 2016, , .		5
346	Plasmonic hot-carriers and their applications: opinion. Optical Materials Express, 2021, 11, 3827.	1.6	5
347	Multimetallic Metasurfaces for Enhanced Electrocatalytic Oxidations in Direct Alcohol Fuel Cells. Laser and Photonics Reviews, 0, , 2200137.	4.4	5
348	Numerical studies of second- and fourth-order correlation functions in cluster-cluster aggregates in application to optical scattering. Physical Review E, 1997, 55, 7313-7333.	0.8	4
349	Fractal nano-composites: Giant local-field enhancement of optical responses. AIP Conference Proceedings, 2001, , .	0.3	4
350	Periodical arrays of optical nano-antennas (Critical Review Lecture). , 2003, 5218, 81.		4
351	Nanostructures + Light = â€˜New Opticsâ€™. Journal of Optics, 2005, 7, S1-S1.	1.5	4
352	Experimental validation of a new bianisotropic parameter retrieval technique using plasmonic metasurfaces made of V-shape antennas. , 2013, , .		4
353	Hot Electron Relaxation in Thin Titanium Nitride Films. , 2016, , .		4
354	Visible photon generation via four-wave mixing in near-infrared near-zero-index thin films. Optics Letters, 2021, 46, 5433.	1.7	4
355	Lasing Action in Gold Nanorod Hyperbolic Metamaterials. , 2016, , .		4
356	Active Metamaterials Based on Monolayer Titanium Carbide MXene for Random Lasing. , 2017, , .		4
357	Self-diffraction of CO2-laser radiation in SF6. Optical and Quantum Electronics, 1986, 18, 115-121.	1.5	3
358	Electron escape and photoemission in the threshold region. Physical Review B, 1994, 49, 1437-1440.	1.1	3
359	‹title›Giant optical nonlinearities of fractal colloid aggregates‹/title›. , 1997, 3146, 107.		3
360	Local field distribution in random metalâ€“dielectric films; theory and experiment. Physica B: Condensed Matter, 2003, 338, 228-231.	1.3	3

#	Article	IF	Citations
361	Plasmonic Nanowire Metamaterials. , 2005, , 313-337.		3
362	Metal nanoslit lenses with polarization-selective design: erratum. Optics Letters, 2011, 36, 1244.	1.7	3
363	Nonlinear and active metamaterials. Proceedings of SPIE, 2011, , .	0.8	3
364	Optical Properties of Ultrathin Plasmonic TiN Films. , 2017, , .		3
365	Patterned multilayer metamaterial for fast and efficient photon collection from dipolar emitters. Optics Letters, 2017, 42, 3968.	1.7	3
366	Fractal-Surface-Enhanced Optical Responses. , 1997, , 237-251.		3
367	Hybrid magneto photonic material structure for plasmon assisted magnetic switching. Optical Materials Express, 2020, 10, 3107.	1.6	3
368	Optical Properties of Fractal Nanocomposites. Materials Research Society Symposia Proceedings, 1994, 367, 417.	0.1	2
369	Discrete spectrum of anti-Stokes emission from metal particle-adsorbate complexes in a microcavity. , 2002, , .		2
370	From low-loss to lossless optical negative-index materials. , 2006, , .		2
371	Collective electronic states in inhomogeneous media at critical and subcritical metal concentrations. Physical Review B, 2007, 75, .	1.1	2
372	Compensating losses in positive- and negative-index metamaterials through nonlinear-optical quantum switching. , 2007, , .		2
373	Into the visible. Physics World, 2011, 24, 30-34.	0.0	2
374	Local heating with titanium nitride nanoparticles. , 2013, , .		2
375	Plasmonic modulator using CMOS-compatible material platform. , 2014, , .		2
376	Effective third-order nonlinearities in metallic refractory titanium nitride thin films: publisherâ€™s note. Optical Materials Express, 2015, 5, 2587.	1.6	2
377	Enhancement of Single-Photon Sources with Metamaterials. , 2015, , 123-148.		2
378	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

#	ARTICLE	IF	CITATIONS
379	Ultra-thin plasmonic metal nitrides: Tailoring optical properties to photonic applications. , 2017, , .		2
380	Feature issue introduction: Beyond Thin Films: Photonics with Ultrathin and Atomically Thin Materials. Optical Materials Express, 2019, 9, 2427.	1.6	2
381	Mark Stockman: Evangelist for Plasmonics. ACS Photonics, 2021, 8, 683-698.	3.2	2
382	High efficiency phase gradient metasurface using refractory plasmonic Zirconium Nitride. , 2016, , .		2
383	Plasmonic Resonances in Nanostructured MXene: Highly Broadband Absorber. , 2017, , .		2
384	Plasmonic Antenna Resonance Pinning and Suppression of Near-Field Coupling from Epsilon-Near-Zero Substrate. , 2017, , .		2
385	Artificial-intelligence-assisted photonics (Conference Presentation). , 2019, , .		2
386	Room-Temperature Lasing Action from All-dielectric Metasurfaces Near Bound States in the Continuum. , 2020, , .		2
387	Unidirectional Doppler-free gain and generation in optically pumped lasers. Applied Physics B, Photophysics and Laser Chemistry, 1982, 27, 63-67.	1.5	1
388	LID sound generated by pulsed excitation in gases. Journal of Physics B: Atomic and Molecular Physics, 1987, 20, 2733-2743.	1.6	1
389	On two-photon excited gas drift under a train of ultrashort laser pulses. Zeitschrift FÃ¼r Physik D-Atoms Molecules and Clusters, 1988, 8, 367-369.	1.0	1
390	Surface-Enhanced Optical Nonlinearities of Nanostructured Fractal Materials. Fractals, 1997, 05, 63-82.	1.8	1
391	<title>Study of local photomodification of nanomaterials using near-field optics</title>. , 1999, , .		1
392	<title>Sub-Doppler resonances of absorption and transparency induced by strong radiations in ladder systems</title>. , 1999, , .		1
393	Fractals in Microcavities: Giant Coupled, Multiplicative Enhancement of Optical Responses. AIP Conference Proceedings, 2002, , .	0.3	1
394	Adaptive SERS substrates for protein sensing. , 2004, , .		1
395	Negative index metamaterial for two distinct polarizations: Double negative at 813 nm and single negative at 770 nm. , 2007, , .		1
396	Nature-based optimization of 2d negative-index metamaterials. , 2007, , .		1

#	ARTICLE	IF	CITATIONS
397	Optical Metamaterials: Invisibility in Visible and Nonlinearities in Reverse. Springer Series in Optical Sciences, 2010, , 217-240.	0.5	1
398	Introduction to the Special Issue on Metamaterials. IEEE Journal of Selected Topics in Quantum Electronics, 2010, 16, 363-366.	1.9	1
399	Maxwell fisheye and Eaton lenses emulated by a microdroplet. , 2010, , .		1
400	Analyzing the effect of a metamaterial surface on electric and magnetic dipole emissions using Green's function and spatial harmonic analysis techniques. , 2010, , .		1
401	Gold Nanoslit Lenses. , 2011, , .		1
402	Studies of plasmonic hot-spot translation by a metal-dielectric layered superlens. , 2011, , .		1
403	Titanium Nitride as a Refractory Plasmonic Material for High Temperature Applications. , 2014, , .		1
404	CMOS Compatible Ultra-Compact Modulator. , 2014, , .		1
405	High-temperature plasmonic thermal emitter for thermo-photovotaics. , 2014, , .		1
406	Plasmon-Assisted Optoelectrofluidics. , 2015, , .		1
407	Merging metamaterials with quantum photonics. , 2015, , .		1
408	Color Hologram Generation Using a Pancharatnam-Berry Phase Manipulating Metasurface. , 2015, , .		1
409	Implementation of Metasurface Based Nano-Cavities. , 2016, , .		1
410	Titanium nitride based hybrid plasmonic-photonic waveguides for on-chip plasmonic interconnects. , 2017, , .		1
411	Hyperbolic Metamaterials for Single-Photon Sources and Nanolasers. Springer Series in Solid-state Sciences, 2017, , 97-120.	0.3	1
412	Emerging materials for tailorable nanophotonic devices. , 2018, , .		1
413	Quantum electrodynamics of optical metasurfaces. , 2018, , .		1
414	Machine learning assisted quantum super-resolution microscopy. , 2021, , .		1

#	ARTICLE	IF	CITATIONS
415	Metasurface design optimization via D-Wave based sampling. , 2021, , .		1
416	Highly Broadband Absorber Using Plasmonic Titanium Carbide (MXene). , 0, .		1
417	COMPUTATIONAL APPROACHES IN OPTICS OF FRACTAL CLUSTERS. , 1999, , 210-243.		1
418	Plasmonic Metasurface Based Ultra-thin Phase Holograms and Planar Micro-lenses. , 2013, , .		1
419	Broadband hot electron generation for solar energy conversion with plasmonic titanium nitride. , 2017, , .		1
420	A Tool for Designing Realizable Hyperlenses. , 2009, , .		1
421	Effective Third-Order Nonlinearities in Refractory Plasmonic TiN Thin Films. , 2016, , .		1
422	Transient Nonlinear Refraction Measurements of Titanium Nitride Thin Films. , 2016, , .		1
423	Hybrid Photonic-Plasmonic Waveguides with Ultrathin TiN. , 2019, , .		1
424	Dynamically controlled random lasing with colloidal titanium carbide MXene. Optical Materials Express, 2020, 10, 2304.	1.6	1
425	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
426	Phase conjugation of CO2-laser radiation by a three-beam interaction. Optical and Quantum Electronics, 1987, 19, 259-264.	1.5	0
427	Subwavelength Localization of Optical Modes in Fractals. Materials Research Society Symposia Proceedings, 1994, 351, 449.	0.1	0
428	<title>Nondegenerate four-wave mixing in gold nanocomposites formed by ion implantation</title>. , 1999, , .		0
429	<title>Scanning near-field optical microscopy: local probes and enhanced electromagnetic fields</title>. , 1999, 3749, 494.		0
430	Percolation Composites: Localization of Surface Plasmons and Enhanced Optical Nonlinearities. , 2001, , 567-575.		0
431	Localized plasmon-enhanced optical response: harmonic generation and polarization effects. , 2001, 4467, 288.		0
432	Plasmon-enhanced absorption by optical phonons in cermets. , 2001, , .		0

#	Article	IF	Citations
433	Local fields and optical properties of metal-dielectric films. , 2001, , .		0
434	<title>Plasmonic nanophotonics: manipulating light and sensing molecules</title>. , 2002, , .		0
435	<title>Light management at nanoscale</title>. , 2002, , .		0
436	Giant enhancement of spectral emissions from molecules adsorbed on fractal/microcavity composite media. , 2002, , .		0
437	Localization-delocalization transition in metal-dielectric films. , 2004, , .		0
438	Adaptive silver films toward bio-array applications. , 2005, , .		0
439	Extraordinary localization of collective electronic states in random media. , 2006, 6320, 175.		0
440	Optical Negative-Index Metamaterials: from low to no-loss and from linear to nonlinear optics. , 2006, , .		0
441	Near-field intensity statistics in semicontinuous metal - dielectric films. , 2006, , .		0
442	Liquid crystal clad metamaterial with a tunable negative-zero-positive index of refraction. , 2007, , .		0
443	Negative meta-magnetism in the visible range. , 2007, , .		0
444	Design of non-magnetic optical cloak. , 2007, , .		0
445	Dual-band negative-index metamaterials in the near-infrared frequency range. , 2007, , .		0
446	Negative Index Metamaterial for Two Distinct Polarizations: Double Negative at 813 nm and Single Negative at 770 nm. , 2007, , .		0
447	Fabrication of Metamagnetics for Visible Wavelengths. , 2007, , .		0
448	Optical chiral negative-index metamaterial design. , 2008, , .		0
449	Mirrorless optical parametric oscillations in negative-index microstructures. , 2008, , .		0
450	Translation of Nanoantenna Field Enhancement by a Metal-Dielectric Composite Superlens. , 2009, , .		0

#	ARTICLE	IF	CITATIONS
451	Inhomogeneous and Guided-Wave Metamaterials: Linear and Nonlinear Optics. , 2009, , .		0
452	Emulating Metamaterial Anisotropy by Tapered Waveguides. , 2009, , .		0
453	Fabricating plasmonic components for nanophotonics. , 2009, , .		0
454	Two-photon Absorption Enhancement with Gold Nanoantenna Array. , 2010, , .		0
455	TUNABLE AND ACTIVE OPTICAL NEGATIVE INDEX METAMATERIALS. World Scientific Series in Nanoscience and Nanotechnology, 2011, , 255-284.	0.1	0
456	Experimental Observation of Field Enhancement at the Negative-Positive Index Interface. , 2011, , .		0
457	Maxwell Fisheye and Eaton Lenses Emulated by Microdroplets. , 2011, , .		0
458	All-semiconductor metamaterial with negative refraction in the near-infrared. , 2012, , .		0
459	Designing a nanoantenna-superlens system for sensing applications. , 2012, , .		0
460	Double-Slit Diffraction Experiment in Hyperbolic Media. , 2012, , .		0
461	Broadband Extinction of Core-Shell Microspheres. , 2012, , .		0
462	Volume plasmon polaritons and subwavelength interference in a hyperbolic medium. , 2013, , .		0
463	Planar Meta-Optics. , 2013, , .		0
464	A Titanium Nitride based Metamaterial for Applications in the Visible. , 2013, , .		0
465	Diffractive optics with nanoslits. , 2013, , .		0
466	Unidirectional lasing with symmetry broken core-shell nanoparticle. , 2013, , .		0
467	Plasmonic hybrid nanostructure with controlled interaction strength. , 2014, , .		0
468	Compact Subwavelength Cavities Using Reflecting Metasurfaces. , 2014, , .		0

#	Article	IF	Citations
469	Highly-directional plasmonic lasing in the visible with subwavelength hole arrays. , 2014, , .		0
470	Unidirectional Surface Plasmon Polariton Coupler in the Visible Using Metasurfaces. , 2014, , .		0
471	Low-Loss Plasmonic Titanium Nitride Strip Waveguides. , 2014, , .		0
472	All-Dielectric Metasurface Focusing Lens. , 2014, , .		0
473	Titanium nitride nanoparticles for therapeutic applications. , 2014, , .		0
474	Quantifying local density of optical states of nanorods by fluorescence lifetime imaging. Proceedings of SPIE, 2014, , .	0.8	0
475	Single-photon source based on NV center in nanodiamond coupled to TiN-based hyperbolic metamaterial. , 2014, , .		0
476	A practical platform for integrated optics with nitrides and oxides. , 2015, , .		0
477	Electrothermoplasmonic flow for plasmon-assisted optical trapping (Presentation Recording). , 2015, , .		0
478	Time-resolved lasing dynamics for plasmonic system with gain (Presentation Recording). , 2015, , .		0
479	Dual-Band Metasurface Based Nano-Cavities. , 2015, , .		0
480	Broadband High-Efficiency Half-Wave Plate Using Plasmonic Metasurface. , 2015, , .		0
481	Plasmonic Random Lasing in Strongly Scattering Regime with Slanted Silver Nanorod Array. , 2015, , .		0
482	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
483	Transparent conducting oxides as plasmonic component in near infrared (Presentation Recording). , 2015, , .		0
484	Nitrogen-vacancy single-photon emission enhanced with nanophotonic structures (Presentation) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 1		0
485	Plasmon Resonance in Single- and Double-layer CVD Graphene Nanoribbons. , 2015, , .		0
486	Time-Domain Model of 4-Level Gain System Fitted to Nanohole Array Lasing Experiment. , 2015, , .		0

#	Article	IF	Citations
487	Ultrafast dynamics of Al-doped zinc oxide under optical excitation (Presentation Recording). , 2015, , .		0
488	Alternative materials lead to practical nanophotonic components (Presentation Recording). Proceedings of SPIE, 2015, , .	0.8	0
489	Effect of a hyperbolic metamaterial on radiation patterns of a single-photon source. , 2015, , .		0
490	Near-infrared plasmonics with transparent conducting oxides (Conference Presentation). , 2016, , .		0
491	Refractory plasmonics (Conference Presentation). , 2016, , .		0
492	Lasing boosted with plasmonic nanostructures. , 2016, , .		0
493	Plasmonics: Plasmonic Titanium Nitride Nanostructures via Nitridation of Nanopatterned Titanium Dioxide (Advanced Optical Materials 7/2017). Advanced Optical Materials, 2017, 5, .	3.6	0
494	Patterning metamaterials for fast and efficient single-photon sources. , 2017, , .		0
495	Deeply sub-wavelength coherent absorption in optically thick ENZ films. , 2017, , .		0
496	Strontium Niobate for Nearâ€Infrared Plasmonics. Advanced Optical Materials, 2019, 7, 1900401.	3.6	0
497	Highly Efficient Frequency Shifting from Temporally Modulated Epsilon-Near-Zero Surfaces. , 2019, , .		0
498	Adversarial Autoencoders for Metasurface Design Optimization (invited). , 2020, , .		0
499	High-harmonic Generation in Metallic Titanium Nitride. , 2021, , .		0
500	Controlling All-optical Switching Speeds in an Epsilon-Near-Zero Enhanced Metasurface. , 2021, , .		0
501	A tribute to Mark Stockman. Nanophotonics, 2021, 10, 3569-3585.	2.9	0
502	Negative Index Metamaterials for Visible Wavelengths. , 2009, , .		0
503	Progress in Metamaterials for Optical Devices. , 2009, , .		0
504	Bi-Anisotropy of Optical Metamagnetics Studied with Spectroscopic Ellipsometry. , 2010, , .		0

#	Article	IF	Citations
505	Ultra-Thin Ultra-Smooth and Low-Loss Silver and Silver-Silica Composite Films for Superlensing Applications. , 2010, , .		0
506	Improving Plasmonic Nanoantennas. , 2010, , .		0
507	Radiative Decay Engineering with Hyperbolic Metamaterials. , 2010, , .		0
508	SHA Modeling of Gold Gratings for Oblique Light Incidence. , 2010, , .		0
509	Effect of Metallic and Hyperbolic Metamaterial Surface on Electric and Magnetic Dipole Emission. , 2011, , .		0
510	Gain-Assisted Hyperbolic Metamaterials. , 2012, , .		0
511	Symmetry-Breaking Plasmonic Metasurfaces for Broadband Light Bending. , 2012, , .		0
512	Holey metallic lens for light focusing. , 2013, , .		0
513	Broadband Optical Chirality Using Ultrathin Metasurface. , 2013, , .		0
514	Broadband enhancement of spontaneous emission from nitrogen-vacancy centers in nanodiamonds by hyperbolic metamaterials. , 2013, , .		0
515	Experimental Huygensâ€™ Surface for NIR Wavelengths. , 2014, , .		0
516	Dispersion Control of High-k Waves in Tapered Hyperbolic Waveguides. , 2015, , .		0
517	Studying the Interplay of Electric and Magnetic Resonance-Enhanced Second Harmonic Generation: Theory and Experiments. , 2015, , .		0
518	Enhanced Multi-Photon Emission from Single NV Center Coupled to Graphene by Laser-Shaping. , 2015, , .		0
519	Ultrafast Optical Tuning of Epsilon-Near-Zero Thin Films. , 2016, , .		0
520	Optical properties of gold thin films at elevated temperatures. , 2016, , .		0
521	Controlled Rapid Delivery and On-Chip Trapping of Nanoparticles by a Hybrid Electrothermoplasmonic Nanotweezer. , 2016, , .		0
522	On-demand rapid transport and stable trapping of nanoparticles of nanoparticles by a hybrid electrothermoplasmonic nanotweezer (Conference Presentation). , 2016, , .		0

#	Article	IF	Citations
523	Spin Contrast of Purcell-Enhanced Nitrogen-Vacancy Centers in Diamond. , 2017, , .		0
524	Massive Parallel Positioning of Nanodiamonds on Nanophotonic Structures. , 2017, , .		0
525	Temperature induced deviations to the optical responses of plasmonic materials. , 2017, , .		0
526	Oxides and nitrides for nanophotonics and energy applications. , 2017, , .		0
527	Novel Hard Mask Fabrication Method for Hybrid Plasmonic Waveguide and Metasurfaces. , 2017, , .		0
528	Interband Effects on Hot Carrier Relaxation in Titanium Nitride Films. , 2017, , .		0
529	Surface-Plasmon Opto-Magnetic Field Enhancement for Magnetization Reversal of On-Chip Nanomagnets. , 2017, , .		0
530	Strontium Niobate for Near Infrared Plasmonics. , 2019, , .		0
531	Extraordinary Permittivity Modulation in Zinc Oxide for Ultrafast Dynamic Nanophotonics. , 2020, , .		0
532	Broadband, High-Speed, and Extraordinarily Large All-Optical Switching with Yttrium-doped Cadmium Oxide. , 2020, , .		0
533	Plasmon-enhanced graphene photothermoelectric detector. , 2020, , .		0
534	Metal-dielectric resonators for multimode, ultrafast all-optical switching in the NIR. , 2020, , .		0
535	Deterministic Creation of Quantum Emitters in Hexagonal Boron Nitride on Non-patterned Substrates. , 2021, , .		0