Marin SoljaÄiÄ

List of Publications by Year
in descending order

325	41,511	4370 86	2274 200
papers	citations	h-index	g-index

328	328	328	21692
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Wireless Power Transfer via Strongly Coupled Magnetic Resonances. Science, 2007, 317, 83-86.	6.0	4,634
2	Topological photonics. Nature Photonics, 2014, 8, 821-829.	15.6	2,492
3	Observation of unidirectional backscattering-immune topological electromagnetic states. Nature, 2009, 461, 772-775.	13.7	2,206
4	Deep learning with coherent nanophotonic circuits. Nature Photonics, 2017, 11, 441-446.	15.6	1,845
5	Plasmonics in graphene at infrared frequencies. Physical Review B, 2009, 80, .	1.1	1,819
6	Bound states in the continuum. Nature Reviews Materials, 2016, 1, .	23.3	1,774
7	Efficient wireless non-radiative mid-range energy transfer. Annals of Physics, 2008, 323, 34-48.	1.0	1,185
8	Reflection-Free One-Way Edge Modes in a Gyromagnetic Photonic Crystal. Physical Review Letters, 2008, 100, 013905.	2.9	1,058
9	Observation of trapped light within the radiation continuum. Nature, 2013, 499, 188-191.	13.7	950
10	Experimental observation of Weyl points. Science, 2015, 349, 622-624.	6.0	833
11	Enhancement of nonlinear effects using photonic crystals. Nature Materials, 2004, 3, 211-219.	13.3	718
12	A nanophotonic solar thermophotovoltaic device. Nature Nanotechnology, 2014, 9, 126-130.	15.6	704
13	Spawning rings of exceptional points out of Dirac cones. Nature, 2015, 525, 354-358.	13.7	610
14	Topological Nature of Optical Bound States in the Continuum. Physical Review Letters, 2014, 113, 257401.	2.9	595
15	Nanophotonic particle simulation and inverse design using artificial neural networks. Science Advances, 2018, 4, eaar4206.	4.7	574
16	Weyl points and line nodes in gyroid photonic crystals. Nature Photonics, 2013, 7, 294-299.	15.6	560
17	Observation of bulk Fermi arc and polarization half charge from paired exceptional points. Science, 2018, 359, 1009-1012.	6.0	438
18	Photonic-crystal slow-light enhancement of nonlinear phase sensitivity. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 2052.	0.9	437

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19	Low-loss asymptotically single-mode propagation in large-core OmniGuide fibers. Optics Express, 2001, 9, 748.	1.7	361
20	Topologically enabled ultrahigh-Q guided resonances robust to out-of-plane scattering. Nature, 2019, 574, 501-504.	13.7	355
21	High-contrast all-optical bistable switching in photonic crystal microcavities. Applied Physics Letters, 2003, 83, 2739-2741.	1.5	346
22	All-optical transistor action with bistable switching in a photonic crystal cross-waveguide geometry. Optics Letters, 2003, 28, 2506.	1.7	328
23	Simultaneous mid-range power transfer to multiple devices. Applied Physics Letters, 2010, 96, .	1.5	325
24	Optimal bistable switching in nonlinear photonic crystals. Physical Review E, 2002, 66, 055601.	0.8	316
25	Modulation Instability and Pattern Formation in Spatially Incoherent Light Beams. Science, 2000, 290, 495-498.	6.0	302
26	Observation and Differentiation of Unique High-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Q</mml:mi></mml:math>Optical Resonances Near Zero Wave Vector in Macroscopic Photonic Crystal Slabs. Physical Review Letters, 2012, 109, 067401.	2.9	286
27	Nonlinear photonic crystal microdevices for optical integration. Optics Letters, 2003, 28, 637.	1.7	274
28	Topological states in photonic systems. Nature Physics, 2016, 12, 626-629.	6.5	271
29	Symmetry-protected topological photonic crystal in three dimensions. Nature Physics, 2016, 12, 337-340.	6.5	245
30	Modulation Instability of Incoherent Beams in Noninstantaneous Nonlinear Media. Physical Review Letters, 2000, 84, 467-470.	2.9	236
31	Enhanced photovoltaic energy conversion using thermally based spectral shaping. Nature Energy, 2016, 1, .	19.8	231
32	Metallic Photonic Crystal Absorberâ€Emitter for Efficient Spectral Control in Highâ€Temperature Solar Thermophotovoltaics. Advanced Energy Materials, 2014, 4, 1400334.	10.2	230
33	Multimode One-Way Waveguides of Large Chern Numbers. Physical Review Letters, 2014, 113, 113904.	2.9	228
34	Experimental Observation of Large Chern Numbers in Photonic Crystals. Physical Review Letters, 2015, 115, 253901.	2.9	228
35	Design and global optimization of high-efficiency thermophotovoltaic systems. Optics Express, 2010, 18, A314.	1.7	226
36	Achieving centimetre-scale supercollimation in a large-area two-dimensional photonic crystal. Nature Materials, 2006, 5, 93-96.	13.3	222

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37	Optical Broadband Angular Selectivity. Science, 2014, 343, 1499-1501.	6.0	222
38	Dynamically Encircling Exceptional Points: Exact Evolution and Polarization State Conversion. Physical Review Letters, 2017, 118, 093002.	2.9	215
39	Plasmons in Graphene: Fundamental Properties and Potential Applications. Proceedings of the IEEE, 2013, 101, 1689-1704.	16.4	210
40	Probing topological protection using a designer surface plasmon structure. Nature Communications, 2016, 7, 11619.	5.8	210
41	Enabling high-temperature nanophotonics for energy applications. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2280-2285.	3.3	204
42	Overcoming the black body limit in plasmonic and graphene near-field thermophotovoltaic systems. Optics Express, 2012, 20, A366.	1.7	196
43	Near-field thermal radiation transfer controlled by plasmons in graphene. Physical Review B, 2012, 85, .	1.1	194
44	Supernatural inflation: inflation from supersymmetry with no (very) small parameters. Nuclear Physics B, 1996, 472, 377-405.	0.9	189
45	Surface-Plasmon-Assisted Guiding of Broadband Slow and Subwavelength Light in Air. Physical Review Letters, 2005, 95, 063901.	2.9	189
46	Transparent displays enabled by resonant nanoparticle scattering. Nature Communications, 2014, 5, 3152.	5.8	186
47	Shrinking light to allow forbidden transitions on the atomic scale. Science, 2016, 353, 263-269.	6.0	185
48	Observation of topologically enabled unidirectional guided resonances. Nature, 2020, 580, 467-471.	13.7	184
49	Passive directional sub-ambient daytime radiative cooling. Nature Communications, 2018, 9, 5001.	5.8	179
50	Large-Scale Optical Neural Networks Based on Photoelectric Multiplication. Physical Review X, 2019, 9, .	2.8	179
51	Self-Trapping of â€œNecklaceâ€•Beams in Self-Focusing Kerr Media. Physical Review Letters, 1998, 81, 4851-4854.	2.9	164
52	Bloch surface eigenstates within the radiation continuum. Light: Science and Applications, 2013, 2, e84-e84.	7.7	163
53	Solar thermophotovoltaic energy conversion systems with two-dimensional tantalum photonic crystal absorbers and emitters. Solar Energy Materials and Solar Cells, 2014, 122, 287-296.	3.0	158
54	Enhanced nonlinear optics in photonic-crystal microcavities. Optics Express, 2007, 15, 16161.	1.7	155

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55	Tailoring high-temperature radiation and the resurrection of the incandescent source. Nature Nanotechnology, 2016, 11, 320-324.	15.6	153
56	Toward high-energy-density, high-efficiency, and moderate-temperature chip-scale thermophotovoltaics. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5309-5314.	3.3	152
57	Frequency-Selective Near-Field Radiative Heat Transfer between Photonic Crystal Slabs: A Computational Approach for Arbitrary Geometries and Materials. Physical Review Letters, 2011, 107, 114302.	2.9	148
58	Weyl Points in Three-Dimensional Optical Lattices: Synthetic Magnetic Monopoles in Momentum Space. Physical Review Letters, 2015, 114, 225301.	2.9	148
59	High-temperature stability and selective thermal emission of polycrystalline tantalum photonic crystals. Optics Express, 2013, 21, 11482.	1.7	146
60	All-angle negative refraction of highly squeezed plasmon and phonon polaritons in grapheneâ€“boron nitride heterostructures. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6717-6721.	3.3	144
61	Reversed Doppler Effect in Photonic Crystals. Physical Review Letters, 2003, 91, 133901.	2.9	141
62	Trapping, corralling and spectral bonding of optical resonances through optically induced potentials. Nature Photonics, 2007, 1, 658-665.	15.6	139
63	?^(2) and ?^(3) harmonic generation at a critical power in inhomogeneous doubly resonant cavities. Optics Express, 2007, 15, 7303.	1.7	134
64	Composite Multihump Vector Solitons Carrying Topological Charge. Physical Review Letters, 2000, 84, 1164-1167.	2.9	133
65	Recent developments in high-temperature photonic crystals for energy conversion. Energy and Environmental Science, 2012, 5, 8815.	15.6	132
66	Infrared Topological Plasmons in Graphene. Physical Review Letters, 2017, 118, 245301.	2.9	132
67	Single-photon all-optical switching using waveguide-cavity quantum electrodynamics. Physical Review A, 2006, 74, .	1.0	126
68	Fundamental limits to optical response in absorptive systems. Optics Express, 2016, 24, 3329.	1.7	124
69	Third order nonlinearities in Ge-As-Se-based glasses for telecommunications applications. Journal of Applied Physics, 2004, 96, 6931-6933.	1.1	123
70	Coupled-mode theory for general free-space resonant scattering of waves. Physical Review A, 2007, 75, .	1.0	122
71	Enabling Ideal Selective Solar Absorption with 2D Metallic Dielectric Photonic Crystals. Advanced Materials, 2014, 26, 8041-8045.	11.1	120
72	General theory of spontaneous emission near exceptional points. Optics Express, 2017, 25, 12325.	1.7	118

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73	Efficient weakly-radiative wireless energy transfer: An EIT-like approach. Annals of Physics, 2009, 324, 1783-1795.	1.0	117
74	Structural Colors from Fano Resonances. ACS Photonics, 2015, 2, 27-32.	3.2	114
75	Low-Loss Plasmonic Dielectric Nanoresonators. Nano Letters, 2017, 17, 3238-3245.	4.5	113
76	Towards graphene plasmon-based free-electron infrared to X-ray sources. Nature Photonics, 2016, 10, 46-52.	15.6	112
77	Thermal emission and design in 2D-periodic metallic photonic crystal slabs. Optics Express, 2006, 14, 8785.	1.7	110
78	Enabling enhanced emission and low-threshold lasing of organic molecules using special Fano resonances of macroscopic photonic crystals. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 13711-13716.	3.3	110
79	Effective theory of quadratic degeneracies. Physical Review B, 2008, 77, .	1.1	108
80	Stimulated Brillouin scattering in nanoscale silicon step-index waveguides: a general framework of selection rules and calculating SBS gain. Optics Express, 2013, 21, 31402.	1.7	108
81	Topological magnetoplasmon. Nature Communications, 2016, 7, 13486.	5.8	108
82	Quantum Corrections in Nanoplasmonics: Shape, Scale, and Material. Physical Review Letters, 2017, 118, 157402.	2.9	105
83	A general theoretical and experimental framework for nanoscale electromagnetism. Nature, 2019, 576, 248-252.	13.7	103
84	Maximal spontaneous photon emission and energy loss from free electrons. Nature Physics, 2018, 14, 894-899.	6.5	100
85	Color of Shock Waves in Photonic Crystals. Physical Review Letters, 2003, 90, 203904.	2.9	99
86	Formation mechanism of guided resonances and bound states in the continuum in photonic crystal slabs. Scientific Reports, 2016, 6, 31908.	1.6	98
87	Low-threshold lasing action in photonic crystal slabs enabled by Fano resonances. Optics Express, 2011, 19, 1539.	1.7	88
88	Controlling Cherenkov angles with resonance transition radiation. Nature Physics, 2018, 14, 816-821.	6.5	88
89	Roadmap on optical energy conversion. Journal of Optics (United Kingdom), 2016, 18, 073004.	1.0	85
90	Migrating Knowledge between Physical Scenarios Based on Artificial Neural Networks. ACS Photonics, 2019, 6, 1168-1174.	3.2	85

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91	Practical emitters for thermophotovoltaics: a review. Journal of Photonics for Energy, 2019, 9, 1.	0.8	85
92	Plasmonâ€“emitter interactions at the nanoscale. Nature Communications, 2020, 11, 366.	5.8	84
93	Gyrotropic response in the absence of a bias field. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 13194-13197.	3.3	83
94	Theoretical Criteria for Scattering Dark States in Nanostructured Particles. Nano Letters, 2014, 14, 2783-2788.	4.5	83
95	Efficient plasmonic emission by the quantum ÄŒerenkov effect from hot carriers in graphene. Nature Communications, 2016, 7, ncomms11880.	5.8	78
96	Eliminating the Transverse Instabilities of Kerr Solitons. Physical Review Letters, 2000, 85, 4888-4891.	2.9	76
97	Analysis of mode structure in hollow dielectric waveguide fibers. Physical Review E, 2003, 67, 046608.	0.8	75
98	Transverse electric plasmons in bilayer graphene. Optics Express, 2011, 19, 11236.	1.7	75
99	Self-similarity and fractals in soliton-supporting systems. Physical Review E, 2000, 61, R1048-R1051.	0.8	72
100	Large-area fabrication of high aspect ratio tantalum photonic crystals for high-temperature selective emitters. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, .	0.6	71
101	Active Radiative Thermal Switching with Graphene Plasmon Resonators. ACS Nano, 2018, 12, 2474-2481.	7.3	70
102	Perfect single-sided radiation and absorption without mirrors. Optica, 2016, 3, 1079.	4.8	69
103	Splashing transients of 2D plasmons launched by swift electrons. Science Advances, 2017, 3, e1601192.	4.7	69
104	Heuristic recurrent algorithms for photonic Ising machines. Nature Communications, 2020, 11, 249.	5.8	69
105	Thermal emission and design in one-dimensional periodic metallic photonic crystal slabs. Physical Review E, 2006, 74, 016609.	0.8	68
106	Effect of a photonic band gap on scattering from waveguide disorder. Applied Physics Letters, 2004, 84, 3639-3641.	1.5	67
107	Bright Spatial Solitons on a Partially Incoherent Background. Physical Review Letters, 2000, 84, 2374-2377.	2.9	65
108	Synthesis and observation of non-Abelian gauge fields in real space. Science, 2019, 365, 1021-1025.	6.0	65

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109	Self-trapping of â€œnecklace-ringâ€•beams in self-focusing Kerr media. Physical Review E, 2000, 62, 2810-2820.	0.8	64
110	Ultralow-power all-optical switching. Applied Physics Letters, 2005, 86, 171101.	1.5	64
111	Larger-area single-mode photonic crystal surface-emitting lasers enabled by an accidental Dirac point. Optics Letters, 2014, 39, 2072.	1.7	63
112	Design of wide-angle selective absorbers/emitters with dielectric filled metallic photonic crystals for energy applications. Optics Express, 2014, 22, A144.	1.7	63
113	Multifrequency Superscattering from Subwavelength Hyperbolic Structures. ACS Photonics, 2018, 5, 1506-1511.	3.2	63
114	Switching through symmetry breaking in coupled nonlinear micro-cavities. Optics Express, 2006, 14, 10678.	1.7	62
115	Bound States in the Continuum in Fiber Bragg Gratings. ACS Photonics, 2019, 6, 2996-3002.	3.2	62
116	Performance analysis of experimentally viable photonic crystal enhanced thermophotovoltaic systems. Optics Express, 2013, 21, A1035.	1.7	59
117	Broadband angular selectivity of light at the nanoscale: Progress, applications, and outlook. Applied Physics Reviews, 2016, 3, 011103.	5.5	59
118	A framework for scintillation in nanophotonics. Science, 2022, 375, eabm9293.	6.0	59
119	Broadband surface-wave transformation cloak. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 7635-7638.	3.3	58
120	Predictive and generative machine learning models for photonic crystals. Nanophotonics, 2020, 9, 4183-4192.	2.9	58
121	Design and global optimization of high-efficiency solar thermal systems with tungsten cermets. Optics Express, 2011, 19, A245.	1.7	56
122	Towards integrated tunable all-silicon free-electron light sources. Nature Communications, 2019, 10, 3176.	5.8	55
123	Superlight inverse Doppler effect. Nature Physics, 2018, 14, 1001-1005.	6.5	54
124	White-light solitons. Optics Letters, 2003, 28, 1239.	1.7	53
125	Enabling single-mode behavior over large areas with photonic Dirac cones. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9761-9765.	3.3	53
126	Broadband circulators based on directional coupling of one-way waveguides. Optics Express, 2011, 19, 22248.	1.7	52

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127	Propagation of incoherent â€œwhiteâ€•light and modulation instability in noninstantaneous nonlinear media. Physical Review E, 2002, 66, 035601.	0.8	51
128	Quantum ÄŒerenkov Radiation: Spectral Cutoffs and the Role of Spin and Orbital Angular Momentum. Physical Review X, 2016, 6, .	2.8	51
129	Cantor Set Fractals from Solitons. Physical Review Letters, 2000, 84, 1902-1905.	2.9	50
130	Collisions of Two Solitons in an Arbitrary Number of Coupled Nonlinear SchrÃ¶dinger Equations. Physical Review Letters, 2003, 90, 254102.	2.9	49
131	Tailoring Optical Nonlinearities via the Purcell Effect. Physical Review Letters, 2007, 99, 053601.	2.9	49
132	(1+1)-Dimensional modulation instability of spatially incoherent light. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 502.	0.9	48
133	Gated Orthogonal Recurrent Units: On Learning to Forget. Neural Computation, 2019, 31, 765-783.	1.3	48
134	End-to-end nanophotonic inverse design for imaging and polarimetry. Nanophotonics, 2021, 10, 1177-1187.	2.9	48
135	Spectral and spatial shaping of Smith-Purcell radiation. Physical Review A, 2017, 96, .	1.0	47
136	Polychromatic partially spatially incoherent solitons in a noninstantaneous Kerr nonlinear medium. Journal of the Optical Society of America B: Optical Physics, 2004, 21, 397.	0.9	46
137	Smithâ€“Purcell Radiation from Low-Energy Electrons. ACS Photonics, 2018, 5, 3513-3518.	3.2	46
138	Self-trapping of electromagnetic beams in vacuum supported by QED nonlinear effects. Physical Review A, 2000, 62, .	1.0	45
139	Enhancement of microcavity lifetimes using highly dispersive materials. Physical Review E, 2005, 71, 026602.	0.8	45
140	Unconventional plasmon-phonon coupling in graphene. Physical Review B, 2011, 83, .	1.1	45
141	Metamaterial broadband angular selectivity. Physical Review B, 2014, 90, .	1.1	45
142	Broadband super-collimation in a hybrid photonic crystal structure. Optics Express, 2009, 17, 8109.	1.7	44
143	Tailoring photonic metamaterial resonances for thermal radiation. Nanoscale Research Letters, 2011, 6, 549.	3.1	44
144	Making two-photon processes dominate one-photon processes using mid-IR phonon polaritons. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 13607-13612.	3.3	44

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145	Direct calculation of thermal emission for three-dimensionally periodic photonic crystal slabs. Physical Review E, 2006, 74, 036615.	0.8	42
146	Emulating one-dimensional resonantQ-matching behavior in a two-dimensional system via Fano resonances. Physical Review A, 2006, 74, .	1.0	40
147	Fractal optics and beyond. Nature Photonics, 2012, 6, 209-210.	15.6	40
148	Limits to the Optical Response of Graphene and Two-Dimensional Materials. Nano Letters, 2017, 17, 5408-5415.	4.5	40
149	Metasurface-based multi-harmonic free-electron light source. Light: Science and Applications, 2018, 7, 64.	7.7	40
150	Superprism effect based on phase velocities. Optics Letters, 2004, 29, 745.	1.7	39
151	Superlattice photonic crystal as broadband solar absorber for high temperature operation. Optics Express, 2014, 22, A1895.	1.7	39
152	Laser-Induced Linear-Field Particle Acceleration in Free Space. Scientific Reports, 2017, 7, 11159.	1.6	39
153	Exploiting Optical Asymmetry for Controlled Guiding of Particles with Light. ACS Photonics, 2016, 3, 197-202.	3.2	38
154	Computational inverse design for ultra-compact single-piece metalenses free of chromatic and angular aberration. Applied Physics Letters, 2021, 118, .	1.5	37
155	Interactions between two-dimensional composite vector solitons carrying topological charges. Physical Review E, 2001, 63, 066608.	0.8	36
156	Waveguiding at the Edge of a Three-Dimensional Photonic Crystal. Physical Review Letters, 2012, 108, 243901.	2.9	36
157	Global optimization of omnidirectional wavelength selective emitters/absorbers based on dielectric-filled anti-reflection coated two-dimensional metallic photonic crystals. Optics Express, 2014, 22, 21711.	1.7	36
158	Efficient mid-IR spectral generation via spontaneous fifth-order cascaded-Raman amplification in silica fibers. Optics Letters, 2008, 33, 1690.	1.7	34
159	Tailoring the energy distribution and loss of 2D plasmons. New Journal of Physics, 2016, 18, 105007.	1.2	34
160	Control of quantum electrodynamical processes by shaping electron wavepackets. Nature Communications, 2021, 12, 1700.	5.8	34
161	Nonlinear harmonic generation and devices in doubly resonant Kerr cavities. Physical Review A, 2009, 79, .	1.0	32
162	Weyl points in photonic-crystal superlattices. 2D Materials, 2015, 2, 034013.	2.0	32

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163	Control of semiconductor emitter frequency by increasing polariton momenta. Nature Photonics, 2018, 12, 423-429.	15.6	32
164	Extraordinary optical transmission through subwavelength holes in a polaritonic silicon dioxide film. Applied Physics Letters, 2007, 90, 181921.	1.5	31
165	Plasmonic-Dielectric Systems for High-Order Dispersionless Slow or Stopped Subwavelength Light. Physical Review Letters, 2009, 103, 043906.	2.9	31
166	Optical bistability in axially modulated OmniGuide fibers. Optics Letters, 2003, 28, 516.	1.7	30
167	Transverse-electric Brewster effect enabled by nonmagnetic two-dimensional materials. Physical Review A, 2016, 94, .	1.0	30
168	Controlling Directionality and Dimensionality of Radiation by Perturbing Separable Bound States in the Continuum. Scientific Reports, 2016, 6, 33394.	1.6	30
169	Enabling efficient heat-to-electricity generation at the mesoscale. Energy and Environmental Science, 2017, 10, 1367-1371.	15.6	30
170	Angular photonic band gap. Physical Review A, 2011, 83, .	1.0	29
171	Topologically enabled optical nanomotors. Science Advances, 2017, 3, e1602738.	4.7	28
172	Degenerate four-wave mixing in triply resonant Kerr cavities. Physical Review A, 2011, 83, .	1.0	27
173	Optimization of broadband optical response of multilayer nanospheres. Optics Express, 2012, 20, 18494.	1.7	27
174	Quantum surface-response of metals revealed by acoustic graphene plasmons. Nature Communications, 2021, 12, 3271.	5.8	27
175	Polarization-Independent Optical Broadband Angular Selectivity. ACS Photonics, 2018, 5, 4125-4131.	3.2	26
176	Pattern Formation in a Cavity Longer than the Coherence Length of the Light in It. Physical Review Letters, 2002, 89, 183902.	2.9	25
177	Direct imaging of isofrequency contours in photonic structures. Science Advances, 2016, 2, e1601591.	4.7	25
178	Submicrometer perovskite plasmonic lasers at room temperature. Science Advances, 2021, 7, .	4.7	25
179	Damping of plasmons in graphene. Nature Photonics, 2013, 7, 346-348.	15.6	24
180	Evolution of sputtered tungsten coatings at high temperature. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	24

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181	Invisible metallic mesh. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2568-2572.	3.3	24
182	A high-efficiency regime for gas-phase terahertz lasers. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 6614-6619.	3.3	24
183	A Brewster route to Cherenkov detectors. Nature Communications, 2021, 12, 5554.	5.8	24
184	Analysis of general geometric scaling perturbations in a transmitting waveguide: fundamental connection between polarization-mode dispersion and group-velocity dispersion. Journal of the Optical Society of America B: Optical Physics, 2002, 19, 2867.	0.9	23
185	Super-collimation with high frequency sensitivity in 2D photonic crystals induced by saddle-type van Hove singularities. Optics Express, 2013, 21, 30140.	1.7	23
186	Modeling of threshold and dynamics behavior of organic nanostructured lasers. Journal of Materials Chemistry C, 2014, 2, 1463.	2.7	23
187	Extracting Interpretable Physical Parameters from Spatiotemporal Systems Using Unsupervised Learning. Physical Review X, 2020, 10, .	2.8	23
188	Toward 3D-Printed Inverse-Designed Metaoptics. ACS Photonics, 2022, 9, 43-51.	3.2	23
189	Quantum plasmons with optical-range frequencies in doped few-layer graphene. Physical Review B, 2018, 97, .	1.1	22
190	Delayed-Action Interaction and Spin-Orbit Coupling between Solitons. Physical Review Letters, 2001, 86, 799-802.	2.9	21
191	Pattern formation via symmetry breaking in nonlinear weakly correlated systems. Physical Review E, 2002, 65, 036620.	0.8	21
192	Photonic crystal enhanced silicon cell based thermophotovoltaic systems. Optics Express, 2015, 23, A157.	1.7	21
193	Tunable UV-Emitters through Graphene Plasmonics. Nano Letters, 2018, 18, 308-313.	4.5	21
194	Light emission based on nanophotonic vacuum forces. Nature Physics, 2019, 15, 1284-1289.	6.5	21
195	Casimir Light in Dispersive Nanophotonics. Physical Review Letters, 2021, 127, 053603.	2.9	21
196	Dark-state polaritons in single- and double-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>Î›</mml:mi></mml:math>media. Physical Review A, 2008, 77, .	1.0	20
197	Layer-by-layer self-assembly of plexcitonic nanoparticles. Optics Express, 2013, 21, 19103.	1.7	20
198	Supercollimation in photonic crystals composed of silicon rods. Applied Physics Letters, 2008, 93, 131111.	1.5	19

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199	Sputtered Tantalum Photonic Crystal Coatings for High-Temperature Energy Conversion Applications. IEEE Nanotechnology Magazine, 2016, 15, 303-309.	1.1	19
200	Controlling spins with surface magnon polaritons. Physical Review B, 2019, 100, .	1.1	19
201	Cutoff solitons in axially uniform systems. Optics Letters, 2004, 29, 851.	1.7	18
202	Transverse instability of incoherent solitons in Kerr media. Physical Review E, 2001, 65, 015601.	0.8	17
203	Purcell effect in nonlinear photonic structures: a coupled mode theory analysis. Optics Express, 2008, 16, 12523.	1.7	17
204	Deep learning with coherent nanophotonic circuits. , 2017, , .		17
205	Cavity pattern formation with incoherent light. Physical Review E, 2003, 68, 016616.	0.8	16
206	All-optical switching using optical bistability in nonlinear photonic crystals. , 2003, , .		16
207	Coherent Optical Photons from Shock Waves in Crystals. Physical Review Letters, 2006, 96, 013904.	2.9	15
208	The nonlinear effect from the interplay between the nonlinearity and the supercollimation of photonic crystal. Applied Physics Letters, 2007, 91, 031105.	1.5	15
209	Shaping Polaritons to Reshape Selection Rules. ACS Photonics, 2018, 5, 3064-3072.	3.2	15
210	Non-Abelian generalizations of the Hofstadter model: spinâ€“orbit-coupled butterfly pairs. Light: Science and Applications, 2020, 9, 177.	7.7	15
211	Narrowband Metamaterial Absorber for Terahertz Secure Labeling. Journal of Infrared, Millimeter, and Terahertz Waves, 2017, 38, 1120-1129.	1.2	15
212	Plasmonics in argentene. Physical Review Materials, 2020, 4, .	0.9	15
213	Optical bistability and cutoff solitons in photonic bandgap fibers. Optics Express, 2004, 12, 1518.	1.7	14
214	The Harperâ€“Hofstadter Hamiltonian and conical diffraction in photonic lattices with grating assisted tunneling. New Journal of Physics, 2015, 17, 125002.	1.2	14
215	Optically Thin Metallic Films for High-Radiative-Efficiency Plasmonics. Nano Letters, 2016, 16, 4110-4117.	4.5	14
216	Constructing â€œDesigner Atomsâ€•via Resonant Graphene-Induced Lamb Shifts. ACS Photonics, 2017, 4, 3098-3105.	3.2	14

#	Article	IF	Citations
217	Quantum theory of a resonant photonic crystal. Physical Review B, 2007, 75, .	1.1	13
218	Flat photonic surface bands pinned between Dirac points. Optics Letters, 2012, 37, 5262.	1.7	13
219	Controlling two-photon emission from superluminal and accelerating index perturbations. Nature Physics, 2022, 18, 67-74.	6.5	13
220	Comment on "Observation of the Inverse Doppler Effect". Science, 2004, 305, 778b-778b.	6.0	12
221	Effects of screening on the optical absorption in graphene and in metallic monolayers. Physical Review B, 2014, 89, .	1.1	12
222	Large Photothermal Effect in Subâ€40 nm hâ€BN Nanostructures Patterned Via Highâ€Resolution Ion Beam. Small, 2018, 14, 1800072.	5.2	12
223	Spatio-temporal theory of lasing action in optically-pumped rotationally excited molecular gases. Optics Express, 2011, 19, 7513.	1.7	11
224	Optimization of sharp and viewing-angle-independent structural color. Optics Express, 2015, 23, 9516.	1.7	11
225	Three-dimensional photonic crystals by large-area membrane stacking. Optics Letters, 2012, 37, 4726.	1.7	10
226	Low emissivity high-temperature tantalum thin film coatings for silicon devices. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	10
227	Molecular dynamics simulations of coherent optical photon emission from shock waves in crystals. Physical Review B, 2007, 75, .	1.1	9
228	Photonic crystals go dynamic. Nature Materials, 2007, 6, 799-800.	13.3	9
229	Substrate-Independent Light Confinement in Bioinspired All-Dielectric Surface Resonators. ACS Photonics, 2016, 3, 532-536.	3.2	9
230	Ultralight Angstrom-Scale Optimal Optical Reflectors. ACS Photonics, 2018, 5, 384-389.	3.2	9
231	Nonperturbative Quantum Electrodynamics in the Cherenkov Effect. Physical Review X, 2018, 8, .	2.8	9
232	Maxwell equation simulations of coherent optical photon emission from shock waves in crystals. Physical Review E, 2007, 75, 056611.	0.8	8
233	Nonlinear photonic crystals near the supercollimation point. Optics Letters, 2008, 33, 1762.	1.7	8
234	An all-metallic microburner for a millimeter-scale thermophotovoltaic generator. Journal of Physics: Conference Series, 2013, 476, 012017.	0.3	8

#	Article	IF	Citations
235	Quantum Hall Effect with Composites of Magnetic Flux Tubes and Charged Particles. Physical Review Letters, 2018, 120, 267201.	2.9	8
236	Ultrafast Multiharmonic Plasmon Generation by Optically Dressed Electrons. Physical Review Letters, 2019, 122, 053901.	2.9	8
237	Reversed and Anomalous Doppler Effects in Photonic Crystals and other Time-dependent Periodic Media. Journal of Computer-Aided Materials Design, 2005, 12, 1-15.	0.7	7
238	Zero-group-velocity modes in longitudinally uniform waveguides. Applied Physics Letters, 2008, 93, 241111.	1.5	7
239	Combined selective emitter and filter for high performance incandescent lighting. Applied Physics Letters, 2017, 111, .	1.5	7
240	Fabricating centimeter-scale high quality factor two-dimensional periodic photonic crystal slabs. Optics Express, 2014, 22, 3724.	1.7	6
241	Enhancing Plasmonic Spectral Tunability with Anomalous Material Dispersion. Nano Letters, 2021, 21, 91-98.	4.5	6
242	Novel optical phenomena with photonic crystals. , 2004, , .		5
243	Thick sputtered tantalum coatings for high-temperature energy conversion applications. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2015, 33, 061204.	0.9	5
244	Towards a portable mesoscale thermophotovoltaic generator. Journal of Physics: Conference Series, 2018, 1052, 012041.	0.3	5
245	Terahertz radiation from shocked materials. Materials Today, 2007, 10, 44-50.	8.3	4
246	Photonic Crystal Enabled Thermophotovoltaics for a Portable Microgenerator. Journal of Physics: Conference Series, 2015, 660, 012069.	0.3	4
247	Monochromatic X-ray Source Based on Scattering from a Magnetic Nanoundulator. ACS Photonics, 2020, 7, 1096-1103.	3.2	4
248	<title>Breaking the glass ceiling: hollow OmniGuide fibers</title>. , 2002, 4655, 1.		3
249	Abrupt coupling between strongly dissimilar waveguides with 100% transmission. Optics Express, 2011, 19, 13714.	1.7	3
250	Performance of tantalum-tungsten alloy selective emitters in thermophotovoltaic systems. Proceedings of SPIE, 2014, , .	0.8	3
251	Ultrafast dynamic control. Nature Materials, 2014, 13, 920-921.	13.3	3
252	Shaping Polaritons to Reshape Selection Rules. , 2017, , .		3

#	Article	IF	Citations
253	High-order Smith-Purcell radiation in Silicon Nanowires. , 2017, , .		3
254	Enabling Manufacturable Optical Broadband Angular-Range Selective Films. ACS Nano, 2021, 15, 19917-19923.	7.3	3
255	Enhancement of phase sensitivity by exploring slow light in photonic crystals. , 2002, 4870, 289.		2
256	Electromagnetically induced transparency in microcavities. , 2004, 5554, 174.		2
257	A Unified Picture of Laser Physics. Science, 2008, 320, 623-624.	6.0	2
258	Omnidirectional wavelength selective emitters/absorbers based on dielectric-filled anti-reflection coated two-dimensional metallic photonic crystals. Proceedings of SPIE, 2014, , .	0.8	2
259	2D Photonic-crystals for high spectral conversion efficiency in solar thermophotovoltaics. , 2014, , .		2
260	Nanoengineered Surfaces for Thermal Energy Conversion. Journal of Physics: Conference Series, 2015, 660, 012036.	0.3	2
261	Photonic Crystal Emitters for Thermophotovoltaic Energy Conversion. Journal of Physics: Conference Series, 2015, 660, 012080.	0.3	2
262	On-Chip Optical Neuromorphic Computing. , 2016, , .		2
263	An integrated microcombustor and photonic crystal emitter for thermophotovoltaics. Journal of Physics: Conference Series, 2016, 773, 012108.	0.3	2
264	Deep learning with coherent nanophotonic circuits. , 2017, , .		2
265	Three-dimensional non-Abelian generalizations of the Hofstadter model: Spin-orbit-coupled butterfly trios. Physical Review B, 2021, 104, .	1.1	2
266	High performance incandescent light bulb using a selective emitter and nanophotonic filters. , 2017, , .		2
267	Photonic Recurrent Ising Sampler. , 2019, , .		2
268	The Color of Shock Waves in Photonic Crystals. AIP Conference Proceedings, 2004, , .	0.3	1
269	Ultra-flat bands in two-dimensional photonic crystals. , 2006, 6128, 27.		1
270	Tantalum-tungsten alloy photonic crystals for high-temperature energy conversion systems. , 2014, , .		1

#	Article	IF	Citations
271	Binary matrices of optimal autocorrelations as alignment marks. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2015, 33, 021601.	0.6	1
272	Sputtered tantalum photonic crystal coatings for high-temperature energy conversion applications. , 2015, , .		1
273	Flexible yet robust. Nature Materials, 2016, 15, 494-495.	13.3	1
274	All-angle Negative Refraction of Highly Squeezed Polaritons in Graphene-boron nitride Heterostructures. , 2017, , .		1
275	Improved Omnidirectional 2D Photonic Crystal Selective Emitter for Thermophotovoltaics. Journal of Physics: Conference Series, 2018, 1052, 012056.	0.3	1
276	Photothermal Effect: Large Photothermal Effect in Subâ€40 nm hâ€BN Nanostructures Patterned Via Highâ€Resolution Ion Beam (Small 22/2018). Small, 2018, 14, 1870101.	5.2	1
277	Spawning Rings of Exceptional Points out of Dirac Cones. , 2015, , .		1
278	Optical Broadband Angular Selectivity. , 2014, , .		1
279	Enabling Enhanced Emission and Low Threshold Lasing of Organic Molecules Using Special Fano Resonances of Macroscopic Photonic Crystals. , 2014, , .		1
280	Topological photonic crystal in three dimensions. , 2016, , .		1
281	Modeling of nanophotonics. , 2003, , .		0
282	The color of shock waves in photonic crystals. , 2004, , .		0
283	Reversed and anomalous Doppler shifts in periodic media. , 2005, 5733, 230.		0
284	Prediction of Coherent Optical Radiation from Shock Waves in Polarizable Crystals. AIP Conference Proceedings, 2006, , .	0.3	0
285	Prediction of Coherent Optical Photons from Shock Waves in Crystals. , 2006, , .		0
286	Analysis of linear and nonlinear photonic devices using eigenmode expansion. , 2007, , .		0
287	Efficient mid-IR spectral generation via 4th order cascaded-Raman amplification. , 2008, , .		0
288	Supercollimation in photonic crystals composed of nano-scale silicon rods. , 2008, , .		0

#	Article	IF	Citations
289	Tailoring and cancelling dispersion of slow or stopped and subwavelength surface-plasmonodielectric-polaritonic light. Proceedings of SPIE, 2009, , .	0.8	0
290	Physics and Applications of One-Way Magneto-Optical Photonic Crystals. , 2010, , .		0
291	Optical phenomena and dynamics in organic microcavity laser. , 2011, , .		0
292	Numerical Study of a Solar Thermophotovoltaic Energy Converter With High Performance 2D Photonic Crystals. , 2012, , .		0
293	Electromagnetic modes localized at the edges of a three-dimensional photonic crystal. , 2012, , .		0
294	Larger-area single-mode photonic crystal surface-emitting lasers enabled by the accidental Dirac-point. , 2012, , .		0
295	Design of three-dimensional photonic crystals for large-area membrane stacking. , 2012, , .		0
296	Artificial faraday rotation using active metamaterials. , 2013, , .		0
297	Novel phenomena in macroscopic photonic crystals. Proceedings of SPIE, 2013, , .	0.8	0
298	Novel phenomena in nano-photonic systems of macroscopic sizes. , 2014, , .		0
299	Nanophotonics in material-systems of Large Sizes. , 2015, , .		0
300	Fano Resonance Structural Color in Patterned Dielectric Surfaces. , 2015, , .		0
301	Grating assisted tunneling in photonic lattices: The Harper-Hofstadter Hamiltonian. , 2016, , .		0
302	Nanoengineered devices for solar energy conversion. , 2017, , .		0
303	Exotic nanophotonic states for enhanced active photonic devices. , 2017, , .		0
304	Controlling the Near-Field of Metasurfaces for Free-Electron Multi-Harmonic Hard X-Ray Generation. , 2018, , .		0
305	Weyl points and line nodes in 3D photonic crystals. , 2013, , .		0
306	Metamaterial Broadband Angular Selectivity. , 2014, , .		0

#	Article	IF	Citations
307	Large Chern number one-way waveguides. , 2015, , .		0
308	Optical manipulation of Janus nanoparticles. , 2015, , .		0
309	Generating Structural Colors from Dielectric Surface Resonances. , 2015, , .		0
310	A Dark-state Invisible Material. , 2016, , .		0
311	Exploiting optical asymmetry for frequency-controlled guiding of particles with light. , 2016, , .		0
312	Towards On-Chip, Tunable X-ray Sources based on Graphene Plasmons. , 2016, , .		0
313	Collapse of the Selection Rules Through 2D Plasmonics. , 2016, , .		0
314	Monoenergetic Relativistic Electron Pulses by Laser-Driven Linear Acceleration in Free Space. , 2016, , .		0
315	Substrate-Independent Light Confinement in Butterfly-Inspired Photonic Crystal Slabs. , 2016, , .		0
316	2D Plasmonics for Nanosecond Generation of Entangled Plasmon Pairs. , 2016, , .		0
317	Shaping UV Emission through Graphene Plasmons. , 2017, , .		0
318	Polarization state conversion through exceptional point encirclement. , 2017, , .		0
319	A Near-Unity Efficiency Source of Entangled Surface Phonon Polaritons. , 2017, , .		0
320	Smith-Purcell radiation from low-energy electrons. , 2017, , .		0
321	Low-loss plasmonics via dielectric nanoparticles on metallic films. , 2017, , .		0
322	Integrated Nanophotonic Ising Sampler. , 2019, , .		0
323	Topological Consequence of Merging Multiple Bound States in the Continuum. , 2019, , .		0
324	Large-Scale Optical Neural-Network Accelerators based on Coherent Detection. , 2019, , .		0

#	Article	IF	Citations
325	Shaping long-lived electron wavepackets for customizable optical spectra. Optica, 2019, 6, 1089.	4.8	0