Marin Soljacic

List of Publications by Citations

267 papers	28,936 citations	77 h-index	167 g-index
328 ext. papers	36,240 ext. citations	10.6 avg, IF	7.42 L-index

#	Paper	IF	Citations
267	Wireless power transfer via strongly coupled magnetic resonances. *Science*, **2007**, 317, 83-6	33.3	3160
266	Topological photonics. *Nature Photonics*, **2014**, 8, 821-829	33.9	1659
265	Observation of unidirectional backscattering-immune topological electromagnetic states. *Nature*, **2009**, 461, 772-5	50.4	1535
264	Plasmonics in graphene at infrared frequencies. *Physical Review B*, **2009**, 80,	3.3	1513
263	Bound states in the continuum. *Nature Reviews Materials*, **2016**, 1,	73.3	900
262	Efficient wireless non-radiative mid-range energy transfer. *Annals of Physics*, **2008**, 323, 34-48	2.5	885
261	Deep learning with coherent nanophotonic circuits. *Nature Photonics*, **2017**, 11, 441-446	33.9	860
260	Reflection-free one-way edge modes in a gyromagnetic photonic crystal. *Physical Review Letters*, **2008**, 100, 013905	7.4	777
259	TOPOLOGICAL MATTER. Experimental observation of Weyl points. *Science*, **2015**, 349, 622-4	33.3	609
258	Observation of trapped light within the radiation continuum. *Nature*, **2013**, 499, 188-91	50.4	590
257	Enhancement of nonlinear effects using photonic crystals. *Nature Materials*, **2004**, 3, 211-9	27	579
256	A nanophotonic solar thermophotovoltaic device. *Nature Nanotechnology*, **2014**, 9, 126-30	28.7	543
255	Weyl points and line nodes in gyroid photonic crystals. *Nature Photonics*, **2013**, 7, 294-299	33.9	418
254	Spawning rings of exceptional points out of Dirac cones. *Nature*, **2015**, 525, 354-8	50.4	392
253	Nanophotonic particle simulation and inverse design using artificial neural networks. *Science Advances*, **2018**, 4, eaar4206	14.3	335
252	Topological nature of optical bound states in the continuum. *Physical Review Letters*, **2014**, 113, 257401	7.4	324
251	Photonic-crystal slow-light enhancement of nonlinear phase sensitivity. *Journal of the Optical Society of America B: Optical Physics*, **2002**, 19, 2052	1.7	315

250	Low-loss asymptotically single-mode propagation in large-core OmniGuide fibers. *Optics Express*, **2001**, 9, 748-79	3.3	300
249	Observation of bulk Fermi arc and polarization half charge from paired exceptional points. *Science*, **2018**, 359, 1009-1012	33.3	276
248	Optimal bistable switching in nonlinear photonic crystals. *Physical Review E*, **2002**, 66, 055601	2.4	275
247	High-contrast all-optical bistable switching in photonic crystal microcavities. *Applied Physics Letters*, **2003**, 83, 2739-2741	3.4	271
246	All-optical transistor action with bistable switching in a photonic crystal cross-waveguide geometry. *Optics Letters*, **2003**, 28, 2506-8	3	262
245	Simultaneous mid-range power transfer to multiple devices. *Applied Physics Letters*, **2010**, 96, 044102	3.4	243
244	Nonlinear photonic crystal microdevices for optical integration. *Optics Letters*, **2003**, 28, 637-9	3	237
243	Modulation instability and pattern formation in spatially incoherent light beams. *Science*, **2000**, 290, 495-8	33.3	237
242	Observation and differentiation of unique high-Q optical resonances near zero wave vector in macroscopic photonic crystal slabs. *Physical Review Letters*, **2012**, 109, 067401	7.4	195
241	Design and global optimization of high-efficiency thermophotovoltaic systems. *Optics Express*, **2010** , 18 Suppl 3, A314-34	3.3	189
240	Symmetry-protected topological photonic crystal in three dimensions. *Nature Physics*, **2016**, 12, 337-340	16.2	182
239	. *Proceedings of the IEEE*, **2013**, 101, 1689-1704	14.3	181
238	Modulation instability of incoherent beams in noninstantaneous nonlinear media. *Physical Review Letters*, **2000**, 84, 467-70	7.4	181
237	Metallic Photonic Crystal Absorber-Emitter for Efficient Spectral Control in High-Temperature Solar Thermophotovoltaics. *Advanced Energy Materials*, **2014**, 4, 1400334	21.8	171
236	Enhanced photovoltaic energy conversion using thermally based spectral shaping. *Nature Energy*, **2016**, 1,	62.3	170
235	Achieving centimetre-scale supercollimation in a large-area two-dimensional photonic crystal. *Nature Materials*, **2006**, 5, 93-6	27	170
234	Overcoming the black body limit in plasmonic and graphene near-field thermophotovoltaic systems. *Optics Express*, **2012**, 20, A366-84	3.3	169
233	Enabling high-temperature nanophotonics for energy applications. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 2280-5	11.5	166

232	Multimode one-way waveguides of large Chern numbers. *Physical Review Letters*, **2014**, 113, 113904	7.4	160
231	Supernatural inflation: inflation from supersymmetry with no (very) small parameters. *Nuclear Physics B*, **1996**, 472, 377-405	2.8	160
230	Near-field thermal radiation transfer controlled by plasmons in graphene. *Physical Review B*, **2012**, 85,	3.3	159
229	Surface-plasmon-assisted guiding of broadband slow and subwavelength light in air. *Physical Review Letters*, **2005**, 95, 063901	7.4	152
228	Probing topological protection using a designer surface plasmon structure. *Nature Communications*, **2016**, 7, 11619	17.4	150
227	Topologically enabled ultrahigh-Q guided resonances robust to out-of-plane scattering. *Nature*, **2019**, 574, 501-504	50.4	149
226	Optical broadband angular selectivity. *Science*, **2014**, 343, 1499-501	33.3	145
225	Transparent displays enabled by resonant nanoparticle scattering. *Nature Communications*, **2014**, 5, 3152	17.4	143
224	Experimental Observation of Large Chern Numbers in Photonic Crystals. *Physical Review Letters*, **2015**, 115, 253901	7.4	142
223	Dynamically Encircling Exceptional Points: Exact Evolution and Polarization State Conversion. *Physical Review Letters*, **2017**, 118, 093002	7.4	135
222	Shrinking light to allow forbidden transitions on the atomic scale. *Science*, **2016**, 353, 263-9	33.3	134
221	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	7.4	132
220	Self-Trapping of "Necklace" Beams in Self-Focusing Kerr Media. *Physical Review Letters*, **1998**, 81, 4851-4854	7.4	131
219	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, 5309-14	11.5	128
218	Enhanced nonlinear optics in photonic-crystal microcavities. *Optics Express*, **2007**, 15, 16161-76	3.3	127
217	Weyl Points in Three-Dimensional Optical Lattices: Synthetic Magnetic Monopoles in Momentum Space. *Physical Review Letters*, **2015**, 114, 225301	7.4	126
216	Solar thermophotovoltaic energy conversion systems with two-dimensional tantalum photonic crystal absorbers and emitters. *Solar Energy Materials and Solar Cells*, **2014**, 122, 287-296	6.4	125
215	Tailoring high-temperature radiation and the resurrection of the incandescent source. *Nature Nanotechnology*, **2016**, 11, 320-4	28.7	122

214	Reversed Doppler effect in photonic crystals. *Physical Review Letters*, **2003**, 91, 133901	7.4	120
213	Bloch surface eigenstates within the radiation continuum. *Light: Science and Applications*, **2013**, 2, e84-e84	16.7	117
212	High-temperature stability and selective thermal emission of polycrystalline tantalum photonic crystals. *Optics Express*, **2013**, 21, 11482-91	3.3	116
211	All-angle negative refraction of highly squeezed plasmon and phonon polaritons in graphene-boron nitride heterostructures. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 6717-6721	11.5	107
210	Recent developments in high-temperature photonic crystals for energy conversion. *Energy and Environmental Science*, **2012**, 5, 8815	35.4	106
209	Trapping, corralling and spectral bonding of optical resonances through optically induced potentials. *Nature Photonics*, **2007**, 1, 658-665	33.9	106
208	Passive directional sub-ambient daytime radiative cooling. *Nature Communications*, **2018**, 9, 5001	17.4	106
207	Chi((2)) and Chi((3)) harmonic generation at a critical power in inhomogeneous doubly resonant cavities. *Optics Express*, **2007**, 15, 7303-18	3.3	104
206	Single-photon all-optical switching using waveguide-cavity quantum electrodynamics. *Physical Review A*, **2006**, 74,	2.6	102
205	Composite multihump vector solitons carrying topological charge. *Physical Review Letters*, **2000**, 84, 1164-7	7.4	102
204	Efficient weakly-radiative wireless energy transfer: An EIT-like approach. *Annals of Physics*, **2009**, 324, 1783-1795	2.5	100
203	Enabling ideal selective solar absorption with 2D metallic dielectric photonic crystals. *Advanced Materials*, **2014**, 26, 8041-5	24	98
202	Infrared Topological Plasmons in Graphene. *Physical Review Letters*, **2017**, 118, 245301	7.4	92
201	Coupled-mode theory for general free-space resonant scattering of waves. *Physical Review A*, **2007**, 75,	2.6	92
200	Thermal emission and design in 2D-periodic metallic photonic crystal slabs. *Optics Express*, **2006**, 14, 8785-96	3.3	92
199	Fundamental limits to optical response in absorptive systems. *Optics Express*, **2016**, 24, 3329-64	3.3	90
198	Effective theory of quadratic degeneracies. *Physical Review B*, **2008**, 77,	3.3	90
197	Structural Colors from Fano Resonances. *ACS Photonics*, **2015**, 2, 27-32	6.3	88

196	Low-Loss Plasmonic Dielectric Nanoresonators. *Nano Letters*, **2017**, 17, 3238-3245	11.5	84
195	General theory of spontaneous emission near exceptional points. *Optics Express*, **2017**, 25, 12325-12348	3.3	79
194	Quantum Corrections in Nanoplasmonics: Shape, Scale, and Material. *Physical Review Letters*, **2017**, 118, 157402	7.4	77
193	Stimulated Brillouin scattering in nanoscale silicon step-index waveguides: a general framework of selection rules and calculating SBS gain. *Optics Express*, **2013**, 21, 31402-19	3.3	77
192	Towards graphene plasmon-based free-electron infrared to X-ray sources. *Nature Photonics*, **2016**, 10, 46-52	33.9	76
191	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, 13711-6	11.5	76
190	Observation of topologically enabled unidirectional guided resonances. *Nature*, **2020**, 580, 467-471	50.4	74
189	Large-Scale Optical Neural Networks Based on Photoelectric Multiplication. *Physical Review X*, **2019**, 9,	9.1	72
188	Color of shock waves in photonic crystals. *Physical Review Letters*, **2003**, 90, 203904	7.4	71
187	Low-threshold lasing action in photonic crystal slabs enabled by Fano resonances. *Optics Express*, **2011**, 19, 1539-62	3.3	70
186	Roadmap on optical energy conversion. *Journal of Optics (United Kingdom)*, **2016**, 18, 073004	1.7	69
185	Topological magnetoplasmon. *Nature Communications*, **2016**, 7, 13486	17.4	68
184	Analysis of mode structure in hollow dielectric waveguide fibers. *Physical Review E*, **2003**, 67, 046608	2.4	67
183	Gyrotropic response in the absence of a bias field. *Proceedings of the National Academy of Sciences of the United States of America*, **2012**, 109, 13194-7	11.5	66
182	Eliminating the transverse instabilities of kerr solitons. *Physical Review Letters*, **2000**, 85, 4888-91	7.4	65
181	Theoretical criteria for scattering dark states in nanostructured particles. *Nano Letters*, **2014**, 14, 2783-8	11.5	64
180	Formation mechanism of guided resonances and bound states in the continuum in photonic crystal slabs. *Scientific Reports*, **2016**, 6, 31908	4.9	64
179	Transverse electric plasmons in bilayer graphene. *Optics Express*, **2011**, 19, 11236-41	3.3	63

178	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, 011802	1.3	62
177	Self-similarity and fractals in soliton-supporting systems. *Physical Review E*, **2000**, 61, R1048-51	2.4	57
176	Bright spatial solitons on a partially incoherent background. *Physical Review Letters*, **2000**, 84, 2374-7	7.4	57
175	Design of wide-angle selective absorbers/emitters with dielectric filled metallic photonic crystals for energy applications. *Optics Express*, **2014**, 22 Suppl 1, A144-54	3.3	56
174	Effect of a photonic band gap on scattering from waveguide disorder. *Applied Physics Letters*, **2004**, 84, 3639-3641	3.4	56
173	Thermal emission and design in one-dimensional periodic metallic photonic crystal slabs. *Physical Review E*, **2006**, 74, 016609	2.4	54
172	A general theoretical and experimental framework for nanoscale electromagnetism. *Nature*, **2019**, 576, 248-252	50.4	54
171	Controlling Cherenkov angles with resonance transition radiation. *Nature Physics*, **2018**, 14, 816-821	16.2	54
170	Splashing transients of 2D plasmons launched by swift electrons. *Science Advances*, **2017**, 3, e1601192	14.3	52
169	Maximal spontaneous photon emission and energy loss from free electrons. *Nature Physics*, **2018**, 14, 894-899	16.2	52
168	Migrating Knowledge between Physical Scenarios Based on Artificial Neural Networks. *ACS Photonics*, **2019**, 6, 1168-1174	6.3	51
167	Efficient plasmonic emission by the quantum Čerenkov effect from hot carriers in graphene. *Nature Communications*, **2016**, 7, ncomms11880	17.4	51
166	Ultralow-power all-optical switching. *Applied Physics Letters*, **2005**, 86, 171101	3.4	51
165	Active Radiative Thermal Switching with Graphene Plasmon Resonators. *ACS Nano*, **2018**, 12, 2474-2481	16.7	50
164	Switching through symmetry breaking in coupled nonlinear micro-cavities. *Optics Express*, **2006**, 14, 10678-83	3.3	50
163	White-light solitons. *Optics Letters*, **2003**, 28, 1239-41	3	49
162	Self-trapping of "necklace-ring" beams in self-focusing kerr media. *Physical Review E*, **2000**, 62, 2810-20	2.4	48
161	Broadband surface-wave transformation cloak. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 7635-8	11.5	47

160	Design and global optimization of high-efficiency solar thermal systems with tungsten cermets. *Optics Express*, **2011**, 19 Suppl 3, A245-57	3.3	47
159	Perfect single-sided radiation and absorption without mirrors. *Optica*, **2016**, 3, 1079	8.6	47
158	Multifrequency Superscattering from Subwavelength Hyperbolic Structures. *ACS Photonics*, **2018**, 5, 1506-1511	6.3	46
157	Propagation of incoherent "white" light and modulation instability in noninstantaneous nonlinear media. *Physical Review E*, **2002**, 66, 035601	2.4	46
156	Performance analysis of experimentally viable photonic crystal enhanced thermophotovoltaic systems. *Optics Express*, **2013**, 21 Suppl 6, A1035-51	3.3	45
155	Broadband circulators based on directional coupling of one-way waveguides. *Optics Express*, **2011**, 19, 22248-57	3.3	45
154	Tailoring optical nonlinearities via the Purcell effect. *Physical Review Letters*, **2007**, 99, 053601	7.4	45
153	Collisions of two solitons in an arbitrary number of coupled nonlinear Schrödinger equations. *Physical Review Letters*, **2003**, 90, 254102	7.4	44
152	Practical emitters for thermophotovoltaics: a review. *Journal of Photonics for Energy*, **2019**, 9, 1	1.2	44
151	Unconventional plasmon-phonon coupling in graphene. *Physical Review B*, **2011**, 83,	3.3	42
150	Polychromatic partially spatially incoherent solitons in a noninstantaneous Kerr nonlinear medium. *Journal of the Optical Society of America B: Optical Physics*, **2004**, 21, 397	1.7	42
149	Tailoring photonic metamaterial resonances for thermal radiation. *Nanoscale Research Letters*, **2011**, 6, 549	5	41
148	Self-trapping of electromagnetic beams in vacuum supported by QED nonlinear effects. *Physical Review A*, **2000**, 62,	2.6	41
147	Broadband angular selectivity of light at the nanoscale: Progress, applications, and outlook. *Applied Physics Reviews*, **2016**, 3, 011103	17.3	41
146	Larger-area single-mode photonic crystal surface-emitting lasers enabled by an accidental Dirac point. *Optics Letters*, **2014**, 39, 2072-5	3	40
145	Plasmon-emitter interactions at the nanoscale. *Nature Communications*, **2020**, 11, 366	17.4	38
144	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, 9761-5	11.5	38
143	Broadband super-collimation in a hybrid photonic crystal structure. *Optics Express*, **2009**, 17, 8109-18	3.3	38

142	(1+1)-Dimensional modulation instability of spatially incoherent light. *Journal of the Optical Society of America B: Optical Physics*, **2002**, 19, 502	1.7	38
141	Quantum Čerenkov Radiation: Spectral Cutoffs and the Role of Spin and Orbital Angular Momentum. *Physical Review X*, **2016**, 6,	9.1	36
140	Emulating one-dimensional resonant Q-matching behavior in a two-dimensional system via Fano resonances. *Physical Review A*, **2006**, 74,	2.6	35
139	Direct calculation of thermal emission for three-dimensionally periodic photonic crystal slabs. *Physical Review E*, **2006**, 74, 036615	2.4	35
138	Superlight inverse Doppler effect. *Nature Physics*, **2018**, 14, 1001-1005	16.2	34
137	Cantor set fractals from solitons. *Physical Review Letters*, **2000**, 84, 1902-5	7.4	34
136	Enhancement of microcavity lifetimes using highly dispersive materials. *Physical Review E*, **2005**, 71, 026602	2.4	33
135	Waveguiding at the edge of a three-dimensional photonic crystal. *Physical Review Letters*, **2012**, 108, 243901	7.4	32
134	Heuristic recurrent algorithms for photonic Ising machines. *Nature Communications*, **2020**, 11, 249	17.4	31
133	Exploiting Optical Asymmetry for Controlled Guiding of Particles with Light. *ACS Photonics*, **2016**, 3, 197-202	6.9	31
132	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	11.5	31
131	Superlattice photonic crystal as broadband solar absorber for high temperature operation. *Optics Express*, **2014**, 22 Suppl 7, A1895-906	3.3	31
130	Towards integrated tunable all-silicon free-electron light sources. *Nature Communications*, **2019**, 10, 3176	17.4	30
129	Global optimization of omnidirectional wavelength selective emitters/absorbers based on dielectric-filled anti-reflection coated two-dimensional metallic photonic crystals. *Optics Express*, **2014**, 22, 21711-8	3.3	30
128	Superprism effect based on phase velocities. *Optics Letters*, **2004**, 29, 745-7	3	30
127	Tailoring the energy distribution and loss of 2D plasmons. *New Journal of Physics*, **2016**, 18, 105007	2.9	30
126	Metasurface-based multi-harmonic free-electron light source. *Light: Science and Applications*, **2018**, 7, 64	16.7	30
125	Metamaterial broadband angular selectivity. *Physical Review B*, **2014**, 90,	3.3	29

124	Nonlinear harmonic generation and devices in doubly resonant Kerr cavities. *Physical Review A*, **2009**, 79,	2.6	29
123	Interactions between two-dimensional composite vector solitons carrying topological charges. *Physical Review E*, **2001**, 63, 066608	2.4	29
122	Bound States in the Continuum in Fiber Bragg Gratings. *ACS Photonics*, **2019**, 6, 2996-3002	6.3	28
121	Laser-Induced Linear-Field Particle Acceleration in Free Space. *Scientific Reports*, **2017**, 7, 11159	4.9	28
120	Gated Orthogonal Recurrent Units: On Learning to Forget. *Neural Computation*, **2019**, 31, 765-783	2.9	27
119	Weyl points in photonic-crystal superlattices. *2D Materials*, **2015**, 2, 034013	5.9	27
118	Limits to the Optical Response of Graphene and Two-Dimensional Materials. *Nano Letters*, **2017**, 17, 5408-5415	11.5	27
117	Efficient mid-IR spectral generation via spontaneous fifth-order cascaded-Raman amplification in silica fibers. *Optics Letters*, **2008**, 33, 1690-2	3	27
116	Optical bistability in axially modulated OmniGuide fibers. *Optics Letters*, **2003**, 28, 516-8	3	26
115	Spectral and spatial shaping of Smith-Purcell radiation. *Physical Review A*, **2017**, 96,	2.6	25
114	Extraordinary optical transmission through subwavelength holes in a polaritonic silicon dioxide film. *Applied Physics Letters*, **2007**, 90, 181921	3.4	25
113	Synthesis and observation of non-Abelian gauge fields in real space. *Science*, **2019**, 365, 1021-1025	33.3	24
112	Controlling Directionality and Dimensionality of Radiation by Perturbing Separable Bound States in the Continuum. *Scientific Reports*, **2016**, 6, 33394	4.9	24
111	Control of semiconductor emitter frequency by increasing polariton momenta. *Nature Photonics*, **2018**, 12, 423-429	33.9	24
110	Plasmonic-dielectric systems for high-order dispersionless slow or stopped subwavelength light. *Physical Review Letters*, **2009**, 103, 043906	7.4	24
109	Smith-Purcell Radiation from Low-Energy Electrons. *ACS Photonics*, **2018**, 5, 3513-3518	6.3	24
108	Angular photonic band gap. *Physical Review A*, **2011**, 83,	2.6	23
107	Degenerate four-wave mixing in triply resonant Kerr cavities. *Physical Review A*, **2011**, 83,	2.6	22

106	Optimization of broadband optical response of multilayer nanospheres. *Optics Express*, **2012**, 20, 18494-504	3.9	22
105	Pattern formation in a cavity longer than the coherence length of the light in it. *Physical Review Letters*, **2002**, 89, 183902	7.4	22
104	Enabling efficient heat-to-electricity generation at the mesoscale. *Energy and Environmental Science*, **2017**, 10, 1367-1371	35.4	20
103	Transverse-electric Brewster effect enabled by nonmagnetic two-dimensional materials. *Physical Review A*, **2016**, 94,	2.6	20
102	Evolution of sputtered tungsten coatings at high temperature. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2013**, 31, 061505	2.9	20
101	Predictive and generative machine learning models for photonic crystals. *Nanophotonics*, **2020**, 9, 4183-4192	6.7	20
100	Super-collimation with high frequency sensitivity in 2D photonic crystals induced by saddle-type van Hove singularities. *Optics Express*, **2013**, 21, 30140-7	3.3	19
99	Direct imaging of isofrequency contours in photonic structures. *Science Advances*, **2016**, 2, e1601591	14.3	18
98	Modeling of threshold and dynamics behavior of organic nanostructured lasers. *Journal of Materials Chemistry C*, **2014**, 2, 1463	7.1	18
97	Supercollimation in photonic crystals composed of silicon rods. *Applied Physics Letters*, **2008**, 93, 131111	3.4	18
96	Dark-state polaritons in single- and double- media. *Physical Review A*, **2008**, 77,	2.6	18
95	Pattern formation via symmetry breaking in nonlinear weakly correlated systems. *Physical Review E*, **2002**, 65, 036620	2.4	18
94	Tunable UV-Emitters through Graphene Plasmonics. *Nano Letters*, **2018**, 18, 308-313	11.5	18
93	Sputtered Tantalum Photonic Crystal Coatings for High-Temperature Energy Conversion Applications. *IEEE Nanotechnology Magazine*, **2016**, 15, 303-309	2.6	17
92	Light emission based on nanophotonic vacuum forces. *Nature Physics*, **2019**, 15, 1284-1289	16.2	17
91	Delayed-action interaction and spin-orbit coupling between solitons. *Physical Review Letters*, **2001**, 86, 799-802	7.4	17
90	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	1.7	17
89	Invisible metallic mesh. *Proceedings of the National Academy of Sciences of the United States of America*, **2016**, 113, 2568-72	11.5	16

88	Layer-by-layer self-assembly of plexcitonic nanoparticles. *Optics Express*, **2013**, 21, 19103-12	3.3	16
87	Topologically enabled optical nanomotors. *Science Advances*, **2017**, 3, e1602738	14.3	15
86	Photonic crystal enhanced silicon cell based thermophotovoltaic systems. *Optics Express*, **2015**, 23, A157-68	3.3	15
85	Purcell effect in nonlinear photonic structures: a coupled mode theory analysis. *Optics Express*, **2008**, 16, 12523-37	3.3	15
84	Cavity pattern formation with incoherent light. *Physical Review E*, **2003**, 68, 016616	2.4	15
83	Cutoff solitons in axially uniform systems. *Optics Letters*, **2004**, 29, 851-3	3	15
82	Transverse instability of incoherent solitons in Kerr media. *Physical Review E*, **2002**, 65, 015601	2.4	15
81	The nonlinear effect from the interplay between the nonlinearity and the supercollimation of photonic crystal. *Applied Physics Letters*, **2007**, 91, 031105	3.4	14
80	Optically Thin Metallic Films for High-Radiative-Efficiency Plasmonics. *Nano Letters*, **2016**, 16, 4110-7	11.5	13
79	Shaping Polaritons to Reshape Selection Rules. *ACS Photonics*, **2018**, 5, 3064-3072	6.3	13
78	Coherent optical photons from shock waves in crystals. *Physical Review Letters*, **2006**, 96, 013904	7.4	13
77	Narrowband Metamaterial Absorber for Terahertz Secure Labeling. *Journal of Infrared, Millimeter, and Terahertz Waves*, **2017**, 38, 1120-1129	2.2	13
76	Quantum plasmons with optical-range frequencies in doped few-layer graphene. *Physical Review B*, **2018**, 97,	3.3	13
75	All-optical switching using optical bistability in nonlinear photonic crystals **2003**,		12
74	Optical bistability and cutoff solitons in photonic bandgap fibers. *Optics Express*, **2004**, 12, 1518-27	3.3	12
73	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	11.5	11
72	The Harper–Hofstadter Hamiltonian and conical diffraction in photonic lattices with grating assisted tunneling. *New Journal of Physics*, **2015**, 17, 125002	2.9	11
71	Quantum theory of a resonant photonic crystal. *Physical Review B*, **2007**, 75,	3.3	11

70	Comment on "Observation of the Inverse Doppler Effect". *Science*, **2004**, 305, 778b-778b	33.3	11
69	Quantum surface-response of metals revealed by acoustic graphene plasmons. *Nature Communications*, **2021**, 12, 3271	17.4	11
68	A framework for scintillation in nanophotonics.. *Science*, **2022**, 375, eabm9293	33.3	11
67	Large Photothermal Effect in Sub-40 nm h-BN Nanostructures Patterned Via High-Resolution Ion Beam. *Small*, **2018**, 14, e1800072	11	10
66	Deep learning with coherent nanophotonic circuits **2017**,		10
65	Three-dimensional photonic crystals by large-area membrane stacking. *Optics Letters*, **2012**, 37, 4726-8	3	10
64	End-to-end nanophotonic inverse design for imaging and polarimetry. *Nanophotonics*, **2021**, 10, 1177-1187	7.3	10
63	Effects of screening on the optical absorption in graphene and in metallic monolayers. *Physical Review B*, **2014**, 89,	3.3	9
62	Constructing Designer Atoms via Resonant Graphene-Induced Lamb Shifts. *ACS Photonics*, **2017**, 4, 3098-3105	6.3	9
61	Spatio-temporal theory of lasing action in optically-pumped rotationally excited molecular gases. *Optics Express*, **2011**, 19, 7513-29	3.3	9
60	Flat photonic surface bands pinned between Dirac points. *Optics Letters*, **2012**, 37, 5262-4	3	9
59	Computational inverse design for ultra-compact single-piece metalenses free of chromatic and angular aberration. *Applied Physics Letters*, **2021**, 118, 041104	3.4	9
58	Polarization-Independent Optical Broadband Angular Selectivity. *ACS Photonics*, **2018**, 5, 4125-4131	6.3	9
57	Optimization of sharp and viewing-angle-independent structural color. *Optics Express*, **2015**, 23, 9516-26	3.3	8
56	Ultralight Angstrom-Scale Optimal Optical Reflectors. *ACS Photonics*, **2018**, 5, 384-389	6.3	8
55	An all-metallic microburner for a millimeter-scale thermophotovoltaic generator. *Journal of Physics: Conference Series*, **2013**, 476, 012017	0.3	8
54	Extracting Interpretable Physical Parameters from Spatiotemporal Systems Using Unsupervised Learning. *Physical Review X*, **2020**, 10,	9.1	8
53	Controlling spins with surface magnon polaritons. *Physical Review B*, **2019**, 100,	3.3	8

52	Submicrometer perovskite plasmonic lasers at room temperature. *Science Advances*, **2021**, 7,	14.3	8
51	Substrate-Independent Light Confinement in Bioinspired All-Dielectric Surface Resonators. *ACS Photonics*, **2016**, 3, 532-536	6.3	7
50	Low emissivity high-temperature tantalum thin film coatings for silicon devices. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2013**, 31, 011501	2.9	7
49	Nonlinear photonic crystals near the supercollimation point. *Optics Letters*, **2008**, 33, 1762-4	3	7
48	Plasmonics in argentene. *Physical Review Materials*, **2020**, 4,	3.2	7
47	Control of quantum electrodynamical processes by shaping electron wavepackets. *Nature Communications*, **2021**, 12, 1700	17.4	7
46	A Brewster route to Cherenkov detectors. *Nature Communications*, **2021**, 12, 5554	17.4	7
45	Ultrafast Multiharmonic Plasmon Generation by Optically Dressed Electrons. *Physical Review Letters*, **2019**, 122, 053901	7.4	6
44	Zero-group-velocity modes in longitudinally uniform waveguides. *Applied Physics Letters*, **2008**, 93, 241111	3.4	6
43	Molecular dynamics simulations of coherent optical photon emission from shock waves in crystals. *Physical Review B*, **2007**, 75,	3.3	6
42	Reversed and Anomalous Doppler Effects in Photonic Crystals and other Time-dependent Periodic Media. *Journal of Computer-Aided Materials Design*, **2005**, 12, 1-15		6
41	Combined selective emitter and filter for high performance incandescent lighting. *Applied Physics Letters*, **2017**, 111, 094103	3.4	5
40	Thick sputtered tantalum coatings for high-temperature energy conversion applications. *Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films*, **2015**, 33, 061204	2.9	5
39	Maxwell equation simulations of coherent optical photon emission from shock waves in crystals. *Physical Review E*, **2007**, 75, 056611	2.4	5
38	Casimir Light in Dispersive Nanophotonics. *Physical Review Letters*, **2021**, 127, 053603	7.4	5
37	Fabricating centimeter-scale high quality factor two-dimensional periodic photonic crystal slabs. *Optics Express*, **2014**, 22, 3724-31	3.3	4
36	Photonic Crystal Enabled Thermophotovoltaics for a Portable Microgenerator. *Journal of Physics: Conference Series*, **2015**, 660, 012069	0.3	4
35	Nonperturbative Quantum Electrodynamics in the Cherenkov Effect. *Physical Review X*, **2018**, 8,	9.1	4

34	Monochromatic X-ray Source Based on Scattering from a Magnetic Nanoundulator. *ACS Photonics*, **2020**, 7, 1096-1103	6.3	3
33	Towards a portable mesoscale thermophotovoltaic generator. *Journal of Physics: Conference Series*, **2018**, 1052, 012041	0.3	3
32	Thermal emission: ultrafast dynamic control. *Nature Materials*, **2014**, 13, 920-1	27	3
31	Abrupt coupling between strongly dissimilar waveguides with 100% transmission. *Optics Express*, **2011**, 19, 13714-21	3.3	3
30	Terahertz radiation from shocked materials. *Materials Today*, **2007**, 10, 44-50	21.8	3
29	Novel optical phenomena with photonic crystals **2004**,		3
28	Toward 3D-Printed Inverse-Designed Metaoptics. *ACS Photonics*, **2022**, 9, 43-51	6.3	3
27	Shaping Polaritons to Reshape Selection Rules **2017**,		3
26	High-order Smith-Purcell radiation in Silicon Nanowires **2017**,		3
25	Quantum Hall Effect with Composites of Magnetic Flux Tubes and Charged Particles. *Physical Review Letters*, **2018**, 120, 267201	7.4	3
24	Nanoengineered Surfaces for Thermal Energy Conversion. *Journal of Physics: Conference Series*, **2015**, 660, 012036	0.3	2
23	Photonic Crystal Emitters for Thermophotovoltaic Energy Conversion. *Journal of Physics: Conference Series*, **2015**, 660, 012080	0.3	2
22	Performance of tantalum-tungsten alloy selective emitters in thermophotovoltaic systems **2014**,		2
21	Omnidirectional wavelength selective emitters/absorbers based on dielectric-filled anti-reflection coated two-dimensional metallic photonic crystals **2014**,		2
20	Physics. A unified picture of laser physics. *Science*, **2008**, 320, 623-4	33.3	2
19	Electromagnetically induced transparency in microcavities **2004**, 5554, 174		2
18	Breaking the glass ceiling: hollow OmniGuide fibers **2002**, 4655, 1		2
17	Non-Abelian generalizations of the Hofstadter model: spin-orbit-coupled butterfly pairs. *Light: Science and Applications*, **2020**, 9, 177	16.7	2

16	On-Chip Optical Neuromorphic Computing **2016**,		2
15	An integrated microcombustor and photonic crystal emitter for thermophotovoltaics. *Journal of Physics: Conference Series*, **2016**, 773, 012108	0.3	2
14	Binary matrices of optimal autocorrelations as alignment marks. *Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics*, **2015**, 33, 021601	1.3	1
13	Tantalum-tungsten alloy photonic crystals for high-temperature energy conversion systems **2014**,		1
12	Ultra-flat bands in two-dimensional photonic crystals **2006**, 6128, 27		1
11	Enhancement of phase sensitivity by exploring slow light in photonic crystals **2002**, 4870, 289		1
10	Controlling two-photon emission from superluminal and accelerating index perturbations. *Nature Physics*, **2022**, 18, 67-74	16.2	1
9	High performance incandescent light bulb using a selective emitter and nanophotonic filters **2017**,		1
8	Photonic Recurrent Ising Sampler **2019**,		1
7	Topological photonic crystal in three dimensions **2016**,		1
6	Enabling Enhanced Emission and Low Threshold Lasing of Organic Molecules Using Special Fano Resonances of Macroscopic Photonic Crystals **2014**,		1
5	Electromagnetic pathway: Flexible yet robust. *Nature Materials*, **2016**, 15, 494-5	27	1
4	Enhancing Plasmonic Spectral Tunability with Anomalous Material Dispersion. *Nano Letters*, **2021**, 21, 91-98	11.5	1
3	Photothermal Effect: Large Photothermal Effect in Sub-40 nm h-BN Nanostructures Patterned Via High-Resolution Ion Beam (Small 22/2018). *Small*, **2018**, 14, 1870101	11	1
2	Improved Omnidirectional 2D Photonic Crystal Selective Emitter for Thermophotovoltaics. *Journal of Physics: Conference Series*, **2018**, 1052, 012056	0.3	0
1	Shaping long-lived electron wavepackets for customizable optical spectra. *Optica*, **2019**, 6, 1089	8.6	