Shanhui Fan

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

 279
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 313
 48,289
 9.8
 7.89

 ext. papers
 ext. citations
 avg, IF
 L-index

#	Paper	IF	Citations
279	Photonic crystals: putting a new twist on light. <i>Nature</i> , 1997 , 386, 143-149	50.4	2376
278	Large single-molecule fluorescence enhancements produced by a bowtie nanoantenna. <i>Nature Photonics</i> , 2009 , 3, 654-657	33.9	1550
277	Parity E ime-symmetric whispering-gallery microcavities. <i>Nature Physics</i> , 2014 , 10, 394-398	16.2	1394
276	High Transmission through Sharp Bends in Photonic Crystal Waveguides. <i>Physical Review Letters</i> , 1996 , 77, 3787-3790	7.4	1354
275	Passive radiative cooling below ambient air temperature under direct sunlight. <i>Nature</i> , 2014 , 515, 540-4	l 50.4	1183
274	Optical absorption enhancement in amorphous silicon nanowire and nanocone arrays. <i>Nano Letters</i> , 2009 , 9, 279-82	11.5	1062
273	A dielectric omnidirectional reflector. <i>Science</i> , 1998 , 282, 1679-82	33.3	952
272	Analysis of guided resonances in photonic crystal slabs. <i>Physical Review B</i> , 2002 , 65,	3.3	855
271	Temporal coupled-mode theory for the Fano resonance in optical resonators. <i>Journal of the Optical Society of America A: Optics and Image Science, and Vision</i> , 2003 , 20, 569-72	1.8	808
270	Photonic crystals. Solid State Communications, 1997, 102, 165-173	1.6	807
269	Nanodome solar cells with efficient light management and self-cleaning. <i>Nano Letters</i> , 2010 , 10, 1979-8	411.5	753
268	A transparent electrode based on a metal nanotrough network. <i>Nature Nanotechnology</i> , 2013 , 8, 421-5	28.7	749
267	Guided modes in photonic crystal slabs. <i>Physical Review B</i> , 1999 , 60, 5751-5758	3.3	719
266	Complete optical isolation created by indirect interband photonic transitions. <i>Nature Photonics</i> , 2009 , 3, 91-94	33.9	713
265	Light management for photovoltaics using high-index nanostructures. <i>Nature Materials</i> , 2014 , 13, 451-6	50 7	670
264	Realizing effective magnetic field for photons by controlling the phase of dynamic modulation. <i>Nature Photonics</i> , 2012 , 6, 782-787	33.9	664
263	Fundamental limit of nanophotonic light trapping in solar cells. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010 , 107, 17491-6	11.5	596

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262	High Extraction Efficiency of Spontaneous Emission from Slabs of Photonic Crystals. <i>Physical Review Letters</i> , 1997 , 78, 3294-3297	7.4	530
261	Absorption enhancement in ultrathin crystalline silicon solar cells with antireflection and light-trapping nanocone gratings. <i>Nano Letters</i> , 2012 , 12, 1616-9	11.5	515
2 60	Channel Drop Tunneling through Localized States. <i>Physical Review Letters</i> , 1998 , 80, 960-963	7.4	514
259	Ultrabroadband photonic structures to achieve high-performance daytime radiative cooling. <i>Nano Letters</i> , 2013 , 13, 1457-61	11.5	507
258	Bends and splitters in metal-dielectric-metal subwavelength plasmonic waveguides. <i>Applied Physics Letters</i> , 2005 , 87, 131102	3.4	493
257	Radiative human body cooling by nanoporous polyethylene textile. <i>Science</i> , 2016 , 353, 1019-1023	33.3	464
256	Semiconductor nanowire optical antenna solar absorbers. <i>Nano Letters</i> , 2010 , 10, 439-45	11.5	438
255	Linear waveguides in photonic-crystal slabs. <i>Physical Review B</i> , 2000 , 62, 8212-8222	3.3	430
254	Electrically driven nonreciprocity induced by interband photonic transition on a silicon chip. <i>Physical Review Letters</i> , 2012 , 109, 033901	7.4	412
253	Temporal coupled-mode theory and the presence of non-orthogonal modes in lossless multimode cavities. <i>IEEE Journal of Quantum Electronics</i> , 2004 , 40, 1511-1518	2	406
252	Omnidirectional reflection from a one-dimensional photonic crystal. <i>Optics Letters</i> , 1998 , 23, 1573-5	3	392
251	Stopping light all optically. <i>Physical Review Letters</i> , 2004 , 92, 083901	7.4	390
250	S4: A free electromagnetic solver for layered periodic structures. <i>Computer Physics Communications</i> , 2012 , 183, 2233-2244	4.2	380
249	Hybrid silicon nanocone-polymer solar cells. <i>Nano Letters</i> , 2012 , 12, 2971-6	11.5	380
248	Radiative cooling to deep sub-freezing temperatures through a 24-h day-night cycle. <i>Nature Communications</i> , 2016 , 7, 13729	17.4	371
247	Sharp asymmetric line shapes in side-coupled waveguide-cavity systems. <i>Applied Physics Letters</i> , 2002 , 80, 908-910	3.4	353
246	One-way electromagnetic waveguide formed at the interface between a plasmonic metal under a static magnetic field and a photonic crystal. <i>Physical Review Letters</i> , 2008 , 100, 023902	7.4	343
245	Daytime Radiative Cooling Using Near-Black Infrared Emitters. <i>ACS Photonics</i> , 2017 , 4, 626-630	6.3	333

244	Photonic-crystal slow-light enhancement of nonlinear phase sensitivity. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2002 , 19, 2052	1.7	315
243	Microcavities in photonic crystals: Mode symmetry, tunability, and coupling efficiency. <i>Physical Review B</i> , 1996 , 54, 7837-7842	3.3	314
242	Channel drop filters in photonic crystals. <i>Optics Express</i> , 1998 , 3, 4-11	3.3	312
241	Absorber and emitter for solar thermo-photovoltaic systems to achieve efficiency exceeding the Shockley-Queisser limit. <i>Optics Express</i> , 2009 , 17, 15145-59	3.3	309
240	Radiative cooling of solar absorbers using a visibly transparent photonic crystal thermal blackbody. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015 , 112, 12282-7	11.5	301
239	Robust wireless power transfer using a nonlinear parity-time-symmetric circuit. <i>Nature</i> , 2017 , 546, 387-	3 90 .4	292
238	Radiative cooling of solar cells. <i>Optica</i> , 2014 , 1, 32	8.6	285
237	High-contrast all-optical bistable switching in photonic crystal microcavities. <i>Applied Physics Letters</i> , 2003 , 83, 2739-2741	3.4	271
236	Theory of single-photon transport in a single-mode waveguide. I. Coupling to a cavity containing a two-level atom. <i>Physical Review A</i> , 2009 , 79,	2.6	266
235	Fundamental limit of light trapping in grating structures. <i>Optics Express</i> , 2010 , 18 Suppl 3, A366-80	3.3	261
234	Limitations of nonlinear optical isolators due to dynamic reciprocity. <i>Nature Photonics</i> , 2015 , 9, 388-392	33.9	246
233	Photonic Aharonov-Bohm effect based on dynamic modulation. <i>Physical Review Letters</i> , 2012 , 108, 1539	99.14	240
232	Nonlinear photonic crystal microdevices for optical integration. <i>Optics Letters</i> , 2003 , 28, 637-9	3	237
231	Enhanced coupling to vertical radiation using a two-dimensional photonic crystal in a semiconductor light-emitting diode. <i>Applied Physics Letters</i> , 2001 , 78, 563-565	3.4	228
230	A dual-mode textile for human body radiative heating and cooling. <i>Science Advances</i> , 2017 , 3, e1700895	14.3	222
229	Sub-ambient non-evaporative fluid cooling with the sky. <i>Nature Energy</i> , 2017 , 2,	62.3	218
228	Non-reciprocal phase shift induced by an effective magnetic flux for light. <i>Nature Photonics</i> , 2014 , 8, 701-705	33.9	214
227	Nanoporous polyethylene microfibres for large-scale radiative cooling fabric. <i>Nature Sustainability</i> , 2018 , 1, 105-112	22.1	206

226	Waveguide branches in photonic crystals. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2001 , 18, 162	1.7	206
225	Optical circulators in two-dimensional magneto-optical photonic crystals. <i>Optics Letters</i> , 2005 , 30, 1989)-91	204
224	Bends and splitters for self-collimated beams in photonic crystals. <i>Applied Physics Letters</i> , 2003 , 83, 325	513 <u>3</u> 125:	3 203
223	High-Efficiency Amorphous Silicon Solar Cell on a Periodic Nanocone Back Reflector. <i>Advanced Energy Materials</i> , 2012 , 2, 628-633	21.8	189
222	Large omnidirectional band gaps in metallodielectric photonic crystals. <i>Physical Review B</i> , 1996 , 54, 112	24 <u>5</u> ₃112	2 5 187
221	Spectrally Selective Nanocomposite Textile for Outdoor Personal Cooling. <i>Advanced Materials</i> , 2018 , 30, e1802152	24	181
220	Broadband light management using low-Q whispering gallery modes in spherical nanoshells. <i>Nature Communications</i> , 2012 , 3, 664	17.4	174
219	Bound states in photonic crystal waveguides and waveguide bends. <i>Physical Review B</i> , 1998 , 58, 4809-4	183.3	172
218	A Comprehensive Photonic Approach for Solar Cell Cooling. ACS Photonics, 2017, 4, 774-782	6.3	166
217	Progress in 2D photonic crystal Fano resonance photonics. <i>Progress in Quantum Electronics</i> , 2014 , 38, 1-74	9.1	165
216	Guided and defect modes in periodic dielectric waveguides. <i>Journal of the Optical Society of America B: Optical Physics</i> , 1995 , 12, 1267	1.7	165
215	Theoretical analysis of channel drop tunneling processes. <i>Physical Review B</i> , 1999 , 59, 15882-15892	3.3	163
214	Warming up human body by nanoporous metallized polyethylene textile. <i>Nature Communications</i> , 2017 , 8, 496	17.4	162
213	From electromagnetically induced transparency to superscattering with a single structure: a coupled-mode theory for doubly resonant structures. <i>Physical Review Letters</i> , 2012 , 108, 083902	7.4	159
212	Nanophotonic control of thermal radiation for energy applications [Invited]. <i>Optics Express</i> , 2018 , 26, 15995-16021	3.3	151
211	Elimination of cross talk in waveguide intersections. <i>Optics Letters</i> , 1998 , 23, 1855-7	3	150
210	Sensitivity enhancement in photonic crystal slab biosensors. <i>Optics Express</i> , 2010 , 18, 22702-14	3.3	134
209	Synthetic dimension in photonics. <i>Optica</i> , 2018 , 5, 1396	8.6	133

208	Scalable and hierarchically designed polymer film as a selective thermal emitter for high-performance all-day radiative cooling. <i>Nature Nanotechnology</i> , 2021 , 16, 153-158	28.7	132
207	Nanostructured photon management for high performance solar cells. <i>Materials Science and Engineering Reports</i> , 2010 , 70, 330-340	30.9	129
206	Design of three-dimensional photonic crystals at submicron lengthscales. <i>Applied Physics Letters</i> , 1994 , 65, 1466-1468	3.4	123
205	Photonic gauge potential in a system with a synthetic frequency dimension. <i>Optics Letters</i> , 2016 , 41, 741-4	3	119
204	Multipole-cancellation mechanism for high-Q cavities in the absence of a complete photonic band gap. <i>Applied Physics Letters</i> , 2001 , 78, 3388-3390	3.4	117
203	Anti-parity-time symmetry in diffusive systems. <i>Science</i> , 2019 , 364, 170-173	33.3	116
202	Interband transitions in photonic crystals. <i>Physical Review B</i> , 1999 , 59, 1551-1554	3.3	114
201	Photonic Weyl point in a two-dimensional resonator lattice with a synthetic frequency dimension. <i>Nature Communications</i> , 2016 , 7, 13731	17.4	114
200	Terrestrial radiative cooling: Using the cold universe as a renewable and sustainable energy source. <i>Science</i> , 2020 , 370, 786-791	33.3	110
199	Highly tunable refractive index visible-light metasurface from block copolymer self-assembly. <i>Nature Communications</i> , 2016 , 7, 12911	17.4	109
198	Optimization of non-periodic plasmonic light-trapping layers for thin-film solar cells. <i>Nature Communications</i> , 2013 , 4, 2095	17.4	107
197	Self-adaptive radiative cooling based on phase change materials. <i>Optics Express</i> , 2018 , 26, A777-A787	3.3	105
196	Photonic Aharonov-Bohm effect in photon-phonon interactions. <i>Nature Communications</i> , 2014 , 5, 3225	17.4	96
195	Comment on "Nonreciprocal light propagation in a silicon photonic circuit". <i>Science</i> , 2012 , 335, 38; author reply 38	33.3	93
194	Theoretical investigation of fabrication-related disorder on the properties of photonic crystals. Journal of Applied Physics, 1995 , 78, 1415-1418	2.5	93
193	Thermal Photonics and Energy Applications. <i>Joule</i> , 2017 , 1, 264-273	27.8	90
192	Design for broadband on-chip isolator using Stimulated Brillouin Scattering in dispersion-engineered chalcogenide waveguides. <i>Optics Express</i> , 2012 , 20, 21235-46	3.3	90
191	Roadmap on optical metamaterials. <i>Journal of Optics (United Kingdom)</i> , 2016 , 18, 093005	1.7	89

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190	A single photonic cavity with two independent physical synthetic dimensions. <i>Science</i> , 2020 , 367, 59-64	33.3	87
189	Towards ultra-thin plasmonic silicon wafer solar cells with minimized efficiency loss. <i>Scientific Reports</i> , 2014 , 4, 4939	4.9	83
188	Air-bridge microcavities. <i>Applied Physics Letters</i> , 1995 , 67, 167-169	3.4	82
187	Photonic thermal management of coloured objects. <i>Nature Communications</i> , 2018 , 9, 4240	17.4	80
186	Dielectric nanostructures for broadband light trapping in organic solar cells. <i>Optics Express</i> , 2011 , 19, 19015-26	3.3	78
185	Exceptional Contours and Band Structure Design in Parity-Time Symmetric Photonic Crystals. <i>Physical Review Letters</i> , 2016 , 116, 203902	7.4	77
184	Electronically programmable photonic molecule. <i>Nature Photonics</i> , 2019 , 13, 36-40	33.9	77
183	Effects of non-Hermitian perturbations on Weyl Hamiltonians with arbitrary topological charges. <i>Physical Review B</i> , 2018 , 97,	3.3	75
182	Generating Light from Darkness. <i>Joule</i> , 2019 , 3, 2679-2686	27.8	73
181	Inverse-designed non-reciprocal pulse router for chip-based LiDAR. <i>Nature Photonics</i> , 2020 , 14, 369-374	33.9	73
180	Model dispersive media in finite-difference time-domain method with complex-conjugate pole-residue pairs. <i>IEEE Microwave and Wireless Components Letters</i> , 2006 , 16, 119-121	2.6	73
179	Nearly Total Solar Absorption in Ultrathin Nanostructured Iron Oxide for Efficient Photoelectrochemical Water Splitting. <i>ACS Photonics</i> , 2014 , 1, 235-240	6.3	71
178	Simultaneously and Synergistically Harvest Energy from the Sun and Outer Space. <i>Joule</i> , 2019 , 3, 101-11	1 0 7.8	71
177	Angle-selective perfect absorption with two-dimensional materials. <i>Light: Science and Applications</i> , 2016 , 5, e16052	16.7	70
176	Optimization of Multilayer Optical Films with a Memetic Algorithm and Mixed Integer Programming. <i>ACS Photonics</i> , 2018 , 5, 684-691	6.3	70
175	Roadmap on optical energy conversion. <i>Journal of Optics (United Kingdom)</i> , 2016 , 18, 073004	1.7	69
174	Creating an Eco-Friendly Building Coating with Smart Subambient Radiative Cooling. <i>Advanced Materials</i> , 2020 , 32, e1906751	24	68
173	Transforming heat transfer with thermal metamaterials and devices. <i>Nature Reviews Materials</i> , 2021 , 6, 488-507	73.3	68

172	Controlling the flow of light using the inhomogeneous effective gauge field that emerges from dynamic modulation. <i>Physical Review Letters</i> , 2013 , 111, 203901	7.4	66
171	Compact all-pass filters in photonic crystals as the building block for high-capacity optical delay lines. <i>Physical Review E</i> , 2003 , 68, 066616	2.4	63
170	Phonon-polariton excitations in photonic crystals. <i>Physical Review B</i> , 2003 , 68,	3.3	62
169	Mechanically switchable photonic crystal filter with either all-pass transmission or flat-top reflection characteristics. <i>Optics Letters</i> , 2003 , 28, 1763-5	3	61
168	Enhancing far-field thermal emission with thermal extraction. <i>Nature Communications</i> , 2013 , 4, 1730	17.4	60
167	Complete All-Optical Silica Fiber Isolator via Stimulated Brillouin Scattering. <i>Journal of Lightwave Technology</i> , 2011 , 29, 2267-2275	4	60
166	Emulation of two-dimensional photonic crystal defect modes in a photonic crystal with a three-dimensional photonic band gap. <i>Physical Review B</i> , 2001 , 64,	3.3	60
165	Demonstration of systematic photonic crystal device design and optimization by low-rank adjustments: an extremely compact mode separator. <i>Optics Letters</i> , 2005 , 30, 141-3	3	58
164	Bloch oscillation and unidirectional translation of frequency in a dynamically modulated ring resonator. <i>Optica</i> , 2016 , 3, 1014	8.6	57
163	GaN-based two-dimensional surface-emitting photonic crystal lasers with AlNCaN distributed Bragg reflector. <i>Applied Physics Letters</i> , 2008 , 92, 011129	3.4	57
162	Temporal coupled-mode theory for resonant apertures. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2010 , 27, 1947	1.7	56
161	Thermodynamic upper bound on broadband light coupling with photonic structures. <i>Physical Review Letters</i> , 2012 , 109, 173901	7.4	55
160	Optical filters from photonic band gap air bridges. <i>Journal of Lightwave Technology</i> , 1996 , 14, 2575-258	304	55
159	Zero-Index Bound States in the Continuum. <i>Physical Review Letters</i> , 2018 , 121, 263901	7.4	55
158	Experimental demonstration of a photonic Aharonov-Bohm effect at radio frequencies. <i>Physical Review B</i> , 2013 , 87,	3.3	54
157	Fundamental bounds on decay rates in asymmetric single-mode optical resonators. <i>Optics Letters</i> , 2013 , 38, 100-2	3	54
156	Optical Circulation and Isolation Based on Indirect Photonic Transitions of Guided Resonance Modes. <i>ACS Photonics</i> , 2017 , 4, 1639-1645	6.3	53
155	Nanophotonic light-trapping theory for solar cells. <i>Applied Physics A: Materials Science and Processing</i> , 2011 , 105, 329-339	2.6	53

154	Ultrafast pyroelectric photodetection with on-chip spectral filters. <i>Nature Materials</i> , 2020 , 19, 158-162	27	53	
153	Optical isolation based on nonreciprocal phase shift induced by interband photonic transitions. <i>Applied Physics Letters</i> , 2009 , 94, 171116	3.4	52	
152	Topologically Protected Complete Polarization Conversion. <i>Physical Review Letters</i> , 2017 , 119, 167401	7.4	50	
151	Thermal-to-electrical energy conversion by diodes under negative illumination. <i>Physical Review B</i> , 2016 , 93,	3.3	49	
150	Light trapping in photonic crystals. Energy and Environmental Science, 2014, 7, 2725	35.4	49	
149	Universal modal radiation laws for all thermal emitters. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 4336-4341	11.5	47	
148	Unidirectional reflectionless light propagation at exceptional points. <i>Nanophotonics</i> , 2017 , 6, 977-996	6.3	47	
147	Dynamic non-reciprocal meta-surfaces with arbitrary phase reconfigurability based on photonic transition in meta-atoms. <i>Applied Physics Letters</i> , 2016 , 108, 021110	3.4	47	
146	Thermodynamic limits of energy harvesting from outgoing thermal radiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018 , 115, E3609-E3615	11.5	46	
145	Broadband Absorption Enhancement in Solar Cells with an Atomically Thin Active Layer. <i>ACS Photonics</i> , 2016 , 3, 571-577	6.3	46	
144	Detailed balance analysis and enhancement of open-circuit voltage in single-nanowire solar cells. <i>Nano Letters</i> , 2014 , 14, 1011-5	11.5	46	
143	. Journal of Lightwave Technology, 2007 , 25, 2539-2546	4	46	
142	Experimental band structure spectroscopy along a synthetic dimension. <i>Nature Communications</i> , 2019 , 10, 3122	17.4	45	
141	Doubly resonant (2) nonlinear photonic crystal cavity based on a bound state in the continuum. <i>Optica</i> , 2019 , 6, 1039	8.6	44	
140	Temporal coupled-mode theory for light scattering by an arbitrarily shaped object supporting a single resonance. <i>Physical Review A</i> , 2012 , 85,	2.6	43	
139	Optical Absorption Enhancement in Freestanding GaAs Thin Film Nanopyramid Arrays. <i>Advanced Energy Materials</i> , 2012 , 2, 1254-1260	21.8	42	
138	Absorbing boundary conditions for FDTD simulations of photonic crystal waveguides 1999 , 9, 502-504		41	
137	A three-dimensional photonic topological insulator using a two-dimensional ring resonator lattice with a synthetic frequency dimension. <i>Science Advances</i> , 2018 , 4, eaat2774	14.3	41	

136	Fluorescence correlation spectroscopy at high concentrations using gold bowtie nanoantennas. <i>Chemical Physics</i> , 2012 , 406, 3-8	2.3	40
135	One-dimensional photonic bandgap microcavities for strong optical confinement in GaAs and GaAs/Al/sub x/O/sub y/ semiconductor waveguides. <i>Journal of Lightwave Technology</i> , 1999 , 17, 2152-2	1 <i>6</i> 0	40
134	Photonic Structure Textile Design for Localized Thermal Cooling Based on a Fiber Blending Scheme. <i>ACS Photonics</i> , 2016 , 3, 2420-2426	6.3	40
133	Condition for perfect antireflection by optical resonance at material interface. <i>Optica</i> , 2014 , 1, 388	8.6	38
132	Suppressing the effect of disorders using time-reversal symmetry breaking in magneto-optical photonic crystals: An illustration with a four-port circulator. <i>Photonics and Nanostructures - Fundamentals and Applications</i> , 2006 , 4, 132-140	2.6	38
131	Light Guiding by Effective Gauge Field for Photons. <i>Physical Review X</i> , 2014 , 4,	9.1	37
130	Creating large bandwidth line defects by embedding dielectric waveguides into photonic crystal slabs. <i>Applied Physics Letters</i> , 2002 , 81, 3915-3917	3.4	37
129	Detailed balance analysis of nanophotonic solar cells. <i>Optics Express</i> , 2013 , 21, 1209-17	3.3	36
128	Metamaterials for radiative sky cooling. <i>National Science Review</i> , 2018 , 5, 132-133	10.8	35
127	Tutorial on Electromagnetic Nonreciprocity and its Origins. <i>Proceedings of the IEEE</i> , 2020 , 108, 1684-17	274.3	35
127	Tutorial on Electromagnetic Nonreciprocity and its Origins. <i>Proceedings of the IEEE</i> , 2020 , 108, 1684-17 Angular constraint on light-trapping absorption enhancement in solar cells. <i>Applied Physics Letters</i> , 2011 , 98, 011106	27 _{4.3} 3.4	35
	Angular constraint on light-trapping absorption enhancement in solar cells. <i>Applied Physics Letters</i> ,		
126	Angular constraint on light-trapping absorption enhancement in solar cells. <i>Applied Physics Letters</i> , 2011 , 98, 011106 Three-Dimensional Printable Nanoporous Polymer Matrix Composites for Daytime Radiative	3.4	34
126 125	Angular constraint on light-trapping absorption enhancement in solar cells. <i>Applied Physics Letters</i> , 2011 , 98, 011106 Three-Dimensional Printable Nanoporous Polymer Matrix Composites for Daytime Radiative Cooling. <i>Nano Letters</i> , 2021 , 21, 1493-1499 Thermodynamic limits for simultaneous energy harvesting from the hot sun and cold outer space.	3.4	34
126 125 124	Angular constraint on light-trapping absorption enhancement in solar cells. <i>Applied Physics Letters</i> , 2011 , 98, 011106 Three-Dimensional Printable Nanoporous Polymer Matrix Composites for Daytime Radiative Cooling. <i>Nano Letters</i> , 2021 , 21, 1493-1499 Thermodynamic limits for simultaneous energy harvesting from the hot sun and cold outer space. <i>Light: Science and Applications</i> , 2020 , 9, 68 Design methodology for compact photonic-crystal-based wavelength division multiplexers. <i>Optics</i>	3.4	34 34 33
126 125 124	Angular constraint on light-trapping absorption enhancement in solar cells. <i>Applied Physics Letters</i> , 2011 , 98, 011106 Three-Dimensional Printable Nanoporous Polymer Matrix Composites for Daytime Radiative Cooling. <i>Nano Letters</i> , 2021 , 21, 1493-1499 Thermodynamic limits for simultaneous energy harvesting from the hot sun and cold outer space. <i>Light: Science and Applications</i> , 2020 , 9, 68 Design methodology for compact photonic-crystal-based wavelength division multiplexers. <i>Optics Letters</i> , 2011 , 36, 591-3 Near-field scanning optical microscopy as a simultaneous probe of fields and band structure of	3·4 11.5 16.7	34 34 33 33
126 125 124 123	Angular constraint on light-trapping absorption enhancement in solar cells. <i>Applied Physics Letters</i> , 2011 , 98, 011106 Three-Dimensional Printable Nanoporous Polymer Matrix Composites for Daytime Radiative Cooling. <i>Nano Letters</i> , 2021 , 21, 1493-1499 Thermodynamic limits for simultaneous energy harvesting from the hot sun and cold outer space. <i>Light: Science and Applications</i> , 2020 , 9, 68 Design methodology for compact photonic-crystal-based wavelength division multiplexers. <i>Optics Letters</i> , 2011 , 36, 591-3 Near-field scanning optical microscopy as a simultaneous probe of fields and band structure of photonic crystals: A computational study. <i>Applied Physics Letters</i> , 1999 , 75, 3461-3463	3·4 11.5 16.7 3	34 34 33 33

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118	Achieving nonreciprocal unidirectional single-photon quantum transport using the photonic Aharonov-Bohm effect. <i>Optics Letters</i> , 2015 , 40, 5140-3	3	31
117	Achieving Arbitrary Control over Pairs of Polarization States Using Complex Birefringent Metamaterials. <i>Physical Review Letters</i> , 2017 , 118, 253902	7.4	29
116	Advances in Theory of Photonic Crystals. <i>Journal of Lightwave Technology</i> , 2006 , 24, 4493-4501	4	29
115	Subambient daytime radiative cooling textile based on nanoprocessed silk. <i>Nature Nanotechnology</i> , 2021 ,	28.7	28
114	Photonic Gauge Potential in One Cavity with Synthetic Frequency and Orbital Angular Momentum Dimensions. <i>Physical Review Letters</i> , 2019 , 122, 083903	7.4	27
113	Efficiency above the Shockley-Queisser limit by using nanophotonic effects to create multiple effective bandgaps with a single semiconductor. <i>Nano Letters</i> , 2014 , 14, 66-70	11.5	27
112	Integrated Nonmagnetic Optical Isolators Based on Photonic Transitions \$^{ast}\$. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2010 , 16, 459-466	3.8	27
111	Higher-order topological insulators in synthetic dimensions. <i>Light: Science and Applications</i> , 2020 , 9, 131	16.7	27
110	Multi-frequency finite-difference frequency-domain algorithm for active nanophotonic device simulations. <i>Optica</i> , 2016 , 3, 1256	8.6	27
109	Three-Dimensional Dynamic Localization of Light from a Time-Dependent Effective Gauge Field for Photons. <i>Physical Review Letters</i> , 2015 , 114, 243901	7.4	26
108	Dynamic Photonic Structures: Stopping, Storage, and Time Reversal of Light. <i>Studies in Applied Mathematics</i> , 2005 , 115, 233-253	2.1	26
107	Sub-Wavelength Passive Optical Isolators Using Photonic Structures Based on Weyl Semimetals. <i>Advanced Optical Materials</i> , 2020 , 8, 2000100	8.1	26
106	Experimental demonstration of energy harvesting from the sky using the negative illumination effect of a semiconductor photodiode. <i>Applied Physics Letters</i> , 2019 , 114, 161102	3.4	23
105	Adjoint-based optimization of active nanophotonic devices. <i>Optics Express</i> , 2018 , 26, 3236-3248	3.3	23
104	Mode-coupling analysis of multipole symmetric resonant add/drop filters. <i>IEEE Journal of Quantum Electronics</i> , 1999 , 35, 1451-1460	2	23
103	Effective electric-field force for a photon in a synthetic frequency lattice created in a waveguide modulator. <i>Physical Review A</i> , 2018 , 97,	2.6	22
102	Compact bends for multi-mode photonic crystal waveguides with high transmission and suppressed modal crosstalk. <i>Optics Express</i> , 2013 , 21, 8069-75	3.3	22
101	Effective magnetic field for photons based on the magneto-optical effect. <i>Physical Review A</i> , 2013 , 88,	2.6	22

100	Reflectionless multichannel wavelength demultiplexer in a transmission resonator configuration. <i>IEEE Journal of Quantum Electronics</i> , 2003 , 39, 160-165	2	22
99	Direction-dependent parity-time phase transition and nonreciprocal amplification with dynamic gain-loss modulation. <i>Physical Review A</i> , 2019 , 99,	2.6	22
98	Connection of temporal coupled-mode-theory formalisms for a resonant optical system and its time-reversal conjugate. <i>Physical Review A</i> , 2019 , 99,	2.6	21
97	Photonic Chern insulator through homogenization of an array of particles. <i>Physical Review B</i> , 2017 , 96,	3.3	20
96	Topologically nontrivial Floquet band structure in a system undergoing photonic transitions in the ultrastrong-coupling regime. <i>Physical Review A</i> , 2015 , 92,	2.6	20
95	Analog of superradiant emission in thermal emitters. <i>Physical Review B</i> , 2015 , 92,	3.3	20
94	Maximal nighttime electrical power generation via optimal radiative cooling. <i>Optics Express</i> , 2020 , 28, 25460-25470	3.3	20
93	Complete photonic band gaps in supercell photonic crystals. <i>Physical Review A</i> , 2017 , 96,	2.6	19
92	Photonics and thermodynamics concepts in radiative cooling. <i>Nature Photonics</i> ,	33.9	19
91	Non-reciprocal geometric phase in nonlinear frequency conversion. <i>Optics Letters</i> , 2017 , 42, 1990-1993	3	17
90	Integrated cooling (i-Cool) textile of heat conduction and sweat transportation for personal perspiration management. <i>Nature Communications</i> , 2021 , 12, 6122	17.4	17
89	Theory for Twisted Bilayer Photonic Crystal Slabs. <i>Physical Review Letters</i> , 2021 , 126, 136101	7.4	17
88	Nonreciprocity in Bianisotropic Systems with Uniform Time Modulation. <i>Physical Review Letters</i> , 2020 , 125, 266102	7.4	16
87	Photonic de Haas-van Alphen effect. <i>Optics Express</i> , 2013 , 21, 18216-24	3.3	15
86	Loss-induced on/off switching in a channel add/drop filter. <i>Physical Review B</i> , 2001 , 64,	3.3	15
85	Manipulating light with photonic crystals. <i>Physica B: Condensed Matter</i> , 2007 , 394, 221-228	2.8	14
84	The nonlinear effect from the interplay between the nonlinearity and the supercollimation of photonic crystal. <i>Applied Physics Letters</i> , 2007 , 91, 031105	3.4	14

82	Nighttime Radiative Cooling for Water Harvesting from Solar Panels. ACS Photonics, 2021, 8, 269-275	6.3	14
81	Theory of Half-Space Light Absorption Enhancement for Leaky Mode Resonant Nanowires. <i>Nano Letters</i> , 2015 , 15, 5513-8	11.5	13
80	Plasmonic Circuit Theory for Multiresonant Light Funneling to a Single Spatial Hot Spot. <i>Nano Letters</i> , 2016 , 16, 5764-9	11.5	13
79	Time reversal of a wave packet with temporal modulation of gauge potential. <i>Physical Review B</i> , 2016 , 94,	3.3	13
78	Integrated Nonreciprocal Photonic Devices With Dynamic Modulation. <i>Proceedings of the IEEE</i> , 2020 , 108, 1759-1784	14.3	13
77	Pulse shortening in an actively mode-locked laser with parity-time symmetry. <i>APL Photonics</i> , 2018 , 3, 086103	5.2	13
76	Fundamental Limits of the Dew-Harvesting Technology. <i>Nanoscale and Microscale Thermophysical Engineering</i> , 2020 , 24, 43-52	3.7	12
75	Nonreciprocal Photonics Without Magneto-Optics. <i>IEEE Antennas and Wireless Propagation Letters</i> , 2018 , 17, 1948-1952	3.8	12
74	Photonic band gap airbridge microcavity resonances in GaAs/AlxOy waveguides. <i>Journal of Applied Physics</i> , 2000 , 87, 1578-1580	2.5	12
73	Compact dynamic optical isolator based on tandem phase modulators. <i>Optics Letters</i> , 2019 , 44, 2240-22	243	12
72	Eigenvalue dynamics in the presence of nonuniform gain and loss. <i>Physical Review A</i> , 2016 , 94,	2.6	12
71	Nonreciprocal Optical Dissipation Based on Direction-Dependent Rabi Splitting. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2018 , 24, 1-7	3.8	10
70	Theory of solar cell light trapping through a nonequilibrium Green's function formulation of Maxwell's equations. <i>Physical Review B</i> , 2017 , 96,	3.3	10
69	Photonic crystal light-emitting diodes 1997 , 3002, 67		10
68	Dynamic Photonic Crystals. <i>Optics and Photonics News</i> , 2007 , 18, 41	1.9	10
67	CurrentWoltage Enhancement of a Single Coaxial Nanowire Solar Cell. <i>ACS Photonics</i> , 2015 , 2, 1698-170	46.3	9
66	Photonic Refrigeration from Time-Modulated Thermal Emission. <i>Physical Review Letters</i> , 2020 , 124, 077	74,02	9
65	Nonreciprocal radiative heat transfer between two planar bodies. <i>Physical Review B</i> , 2020 , 101,	3.3	9

64	Protecting ice from melting under sunlight via radiative cooling Science Advances, 2022, 8, eabj9756	14.3	9
63	Nonreciprocal infrared absorption via resonant magneto-optical coupling to InAs <i>Science Advances</i> , 2022 , 8, eabm4308	14.3	9
62	Efficient computation of equifrequency surfaces and density of states in photonic crystals using Dirichlet-to-Neumann maps. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2011 , 28, 1837	1.7	7
61	Effects of non-uniform distributions of gain and loss in photonic crystals. <i>New Journal of Physics</i> , 2016 , 18, 125007	2.9	7
60	Configurable Phase Transitions in a Topological Thermal Material. <i>Physical Review Letters</i> , 2021 , 127, 105901	7.4	7
59	Synthetic gauge potential and effective magnetic field in a Raman medium undergoing molecular modulation. <i>Physical Review A</i> , 2017 , 95,	2.6	6
58	Bounds for Scattering from Absorptionless Electromagnetic Structures. <i>Physical Review Applied</i> , 2020 , 14,	4.3	6
57	Non-reciprocal polarization rotation using dynamic refractive index modulation. <i>Optics Express</i> , 2020 , 28, 11974-11982	3.3	6
56	Nondissipative non-Hermitian dynamics and exceptional points in coupled optical parametric oscillators. <i>Optica</i> , 2021 , 8, 415	8.6	6
55	Self-Focused Thermal Emission and Holography Realized by Mesoscopic Thermal Emitters. <i>ACS Photonics</i> , 2021 , 8, 497-504	6.3	6
54	Unidirectional light transport in dynamically modulated waveguides. <i>Physical Review Applied</i> , 2018 , 10,	4.3	6
53	Broadband Optical Switch based on an Achromatic Photonic Gauge Potential in Dynamically Modulated Waveguides. <i>Physical Review Applied</i> , 2019 , 11,	4.3	5
52	Fano interference in two-photon transport. <i>Physical Review A</i> , 2016 , 94,	2.6	5
51	Optical impedance transformer for transparent conducting electrodes. <i>Nano Letters</i> , 2014 , 14, 2755-8	11.5	5
50	Manipulating light with photonic crystals. AIP Conference Proceedings, 2001,	О	5
49	Dielectric nanostructures for broadband light trapping in organic solar cells 2011 ,		5
48	Synthetic frequency dimensions in dynamically modulated ring resonators. APL Photonics, 2021, 6, 0711	10522	5
47	Nonreciprocal Metamaterial Obeying Time-Reversal Symmetry. <i>Physical Review Letters</i> , 2020 , 124, 2574	1 0/ 34	4

46	Optical resonances created by photonic transitions. <i>Applied Physics Letters</i> , 2010 , 96, 011108	3.4	4
45	Anomalous modal structure in a waveguide with a photonic crystal core. <i>Optics Letters</i> , 2006 , 31, 742-4	3	4
44	Coupled optical and electronic simulations of electrically pumped photonic-crystal-based light-emitting diodes. <i>Journal of Applied Physics</i> , 2005 , 97, 044503	2.5	4
43	Nontrivial point-gap topology and non-Hermitian skin effect in photonic crystals. <i>Physical Review B</i> , 2021 , 104,	3.3	4
42	Creating anyons from photons using a nonlinear resonator lattice subject to dynamic modulation. <i>Physical Review A</i> , 2017 , 96,	2.6	3
41	Resonator-free realization of effective magnetic field for photons. <i>New Journal of Physics</i> , 2015 , 17, 07	500/8	3
40	Relation between absorption and emission directivities for dipoles coupled with optical antennas. <i>Physical Review A</i> , 2018 , 98,	2.6	3
39	Photonic crystal theory 2008 , 431-454		3
38	Subwavelength plasmonic waveguide structures based on slots in thin metal films 2006,		3
37	Wide bandwidth, large, and tunable polarization mode dispersions in multilayered omnidirectional reflectors. <i>Applied Physics Letters</i> , 2002 , 81, 187-189	3.4	3
36	Photonic Modal Circulator Using Temporal Refractive-Index Modulation with Spatial Inversion Symmetry. <i>Physical Review Letters</i> , 2021 , 126, 193901	7.4	3
35	Accelerating convergence of an iterative solution of finite difference frequency domain problems via schur complement domain decomposition. <i>Optics Express</i> , 2018 , 26, 16925-16939	3.3	2
34	Penetration Depth Reduction with Plasmonic Metafilms. ACS Photonics, 2019, 6, 2049-2055	6.3	2
33	Passive cooling of solar cells with a comprehensive photonic approach 2017 ,		2
32	Design and growth of IIIIV nanowire solar cell arrays on low cost substrates 2010 ,		2
31	Efficient treatment of dispersive electric permittivity in finite-difference time-domain simulations of advanced photonic devices 2010 ,		2
30	Dichroic mirror embedded in a submicrometer waveguide for enhanced resonant nonlinear optical devices. <i>Optics Letters</i> , 2006 , 31, 3285-7	3	2
29	Radiative cooling of solar absorbers using a transparent photonic crystal thermal blackbody 2016 ,		2

28	Generation of guided space-time wave packets using multilevel indirect photonic transitions in integrated photonics. <i>Physical Review Research</i> , 2021 , 3,	3.9	2
27	Radiative cooling for solar cells 2015 ,		1
26	Broadband Control of Topological Nodes in Electromagnetic Fields. <i>Physical Review Letters</i> , 2018 , 120, 193903	7.4	1
25	Exponential suppression of thermal conductance using coherent transport and heterostructures. <i>Physical Review B</i> , 2010 , 82,	3.3	1
24	Dynamic photonic structure for integrated photonics 2010,		1
23	Enhancement of phase sensitivity by exploring slow light in photonic crystals 2002 , 4870, 289		1
22	Achieving the gauge potential for the photon in a synthetic space 2016,		1
21	Wave optics light-trapping theory: mathematical justification and ultimate limit on enhancement. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2019 , 36, 2414	1.7	1
20	Absorption Enhancement in Ultrathin Solar Cells with Antireflection and Light-Trapping Nanocone Gratings 2012 ,		1
19	Single-Photon Transport in a Topological Waveguide from a Dynamically Modulated Photonic System. <i>Physical Review Applied</i> , 2020 , 14,	4.3	1
18	Slow and Stopped Light in Coupled Resonator Systems. Springer Series in Optical Sciences, 2010, 165-18	0 0.5	1
17	Observation of Weyl exceptional rings in thermal diffusion <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119, e2110018119	11.5	1
16	Nighttime electric power generation at a density of 50 mW/m2 via radiative cooling of a photovoltaic cell. <i>Applied Physics Letters</i> , 2022 , 120, 143901	3.4	1
15	Temporal modulation brings metamaterials into new era. Light: Science and Applications, 2022, 11,	16.7	1
14	Adaptive four-level modeling of laser cooling of solids. <i>Applied Physics Letters</i> , 2021 , 119, 181107	3.4	0
13	Spectral emissivity modeling in multi-resonant systems using coupled-mode theory <i>Optics Express</i> , 2022 , 30, 9463-9472	3.3	O
12	Fano resonance principles in photonic crystal slabs. Semiconductors and Semimetals, 2019, 1-12	0.6	
11	Condition for Perfect Resonant Antireflection. <i>Materials Research Society Symposia Proceedings</i> , 2015 , 1788, 7-12		

LIST OF PUBLICATIONS

10	Coupled optical and electronic simulations of electrically pumped photonic-crystal-based LEDs 2005 , 5733, 422	
9	Magneto-optical photonic crystals 2005 , 5723, 172	
8	Tunable photonic crystals enable new optical physics and devices 2004 , 5511, 93	
7	Non-orthogonal modes in passive photonic crystals 2005 , 5733, 356	
6	Enhanced Emission from a Light-Emitting Diode Modified by a Photonic Crystal. <i>Materials Research Society Symposia Proceedings</i> , 2000 , 637, E2.8.1	
5	Two Dimensional Photonic Crystal Modes and Resonances in Three-dimensional Structures. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 694, 1	
4	Two Dimensional Photonic Crystal Modes and Resonances in Three-dimensional Structures. <i>Materials Research Society Symposia Proceedings</i> , 2001 , 692, 1	
3	Lineshape study of optical force spectra on resonant structures Optics Express, 2022, 30, 6142-6160	3-3
2	Photonic Transition in Nanophotonics. Springer Series in Optical Sciences, 2012, 343-364	0.5
1	Subwavelength Plasmonic Two-Conductor Waveguides 2016 , 1-15	