Yu Guo

List of Publications by Citations

270 papers	23,981 citations	72 h-index	152 g-index
313 ext. papers	30,523 ext. citations	9.9 avg, IF	7.69 L-index

#	Paper	IF	Citations
270	Large single-molecule fluorescence enhancements produced by a bowtie nanoantenna. *Nature Photonics*, **2009**, 3, 654-657	33.9	1550
269	Parity-time-symmetric whispering-gallery microcavities. *Nature Physics*, **2014**, 10, 394-398	16.2	1394
268	Passive radiative cooling below ambient air temperature under direct sunlight. *Nature*, **2014**, 515, 540-4	50.4	1183
267	Nanoscale thermal transport. II. 2003-2012. *Applied Physics Reviews*, **2014**, 1, 011305	17.3	1050
266	Analysis of guided resonances in photonic crystal slabs. *Physical Review B*, **2002**, 65,	3.3	855
265	Temporal coupled-mode theory for the Fano resonance in optical resonators. *Journal of the Optical Society of America A: Optics and Image Science, and Vision*, **2003**, 20, 569-72	1.8	808
264	Complete optical isolation created by indirect interband photonic transitions. *Nature Photonics*, **2009**, 3, 91-94	33.9	713
263	Light management for photovoltaics using high-index nanostructures. *Nature Materials*, **2014**, 13, 451-60	27	670
262	Realizing effective magnetic field for photons by controlling the phase of dynamic modulation. *Nature Photonics*, **2012**, 6, 782-787	33.9	664
261	Radiative human body cooling by nanoporous polyethylene textile. *Science*, **2016**, 353, 1019-1023	33.3	464
260	Electrically driven nonreciprocity induced by interband photonic transition on a silicon chip. *Physical Review Letters*, **2012**, 109, 033901	7.4	412
259	Total Absorption in a Graphene Monolayer in the Optical Regime by Critical Coupling with a Photonic Crystal Guided Resonance. *ACS Photonics*, **2014**, 1, 347-353	6.3	389
258	S4 : A free electromagnetic solver for layered periodic structures. *Computer Physics Communications*, **2012**, 183, 2233-2244	4.2	380
257	Radiative cooling to deep sub-freezing temperatures through a 24-h day-night cycle. *Nature Communications*, **2016**, 7, 13729	17.4	371
256	Sharp asymmetric line shapes in side-coupled waveguide-cavity systems. *Applied Physics Letters*, **2002**, 80, 908-910	3.4	353
255	Daytime Radiative Cooling Using Near-Black Infrared Emitters. *ACS Photonics*, **2017**, 4, 626-630	6.3	333
254	Thermal rectification through vacuum. *Physical Review Letters*, **2010**, 104, 154301	7.4	321

253	Radiative cooling of solar absorbers using a visibly transparent photonic crystal thermal blackbody. *Proceedings of the National Academy of Sciences of the United States of America*, **2015**, 112, 12282-7	11.5	301
252	Robust wireless power transfer using a nonlinear parity-time-symmetric circuit. *Nature*, **2017**, 546, 387-390	50.4	292
251	Broadband super-Planckian thermal emission from hyperbolic metamaterials. *Applied Physics Letters*, **2012**, 101, 131106	3.4	252
250	Limitations of nonlinear optical isolators due to dynamic reciprocity. *Nature Photonics*, **2015**, 9, 388-392	33.9	246
249	Photonic Aharonov-Bohm effect based on dynamic modulation. *Physical Review Letters*, **2012**, 108, 153901	7.4	240
248	A dual-mode textile for human body radiative heating and cooling. *Science Advances*, **2017**, 3, e1700895	14.3	222
247	Modes of Subwavelength Plasmonic Slot Waveguides. *Journal of Lightwave Technology*, **2007**, 25, 2511-2521	4	221
246	Non-reciprocal phase shift induced by an effective magnetic flux for light. *Nature Photonics*, **2014**, 8, 701-705	33.9	214
245	Nanoporous polyethylene microfibres for large-scale radiative cooling fabric. *Nature Sustainability*, **2018**, 1, 105-112	22.1	206
244	Bends and splitters for self-collimated beams in photonic crystals. *Applied Physics Letters*, **2003**, 83, 3251-3253	3.4	203
243	High-Efficiency Amorphous Silicon Solar Cell on a Periodic Nanocone Back Reflector. *Advanced Energy Materials*, **2012**, 2, 628-633	21.8	189
242	Spectrally Selective Nanocomposite Textile for Outdoor Personal Cooling. *Advanced Materials*, **2018**, 30, e1802152	24	181
241	Enhancement of optical absorption in thin-film organic solar cells through the excitation of plasmonic modes in metallic gratings. *Applied Physics Letters*, **2010**, 96, 133302	3.4	179
240	Optical Fano resonance of an individual semiconductor nanostructure. *Nature Materials*, **2014**, 13, 471-5	27	173
239	Plasmonic computing of spatial differentiation. *Nature Communications*, **2017**, 8, 15391	17.4	167
238	A Comprehensive Photonic Approach for Solar Cell Cooling. *ACS Photonics*, **2017**, 4, 774-782	6.3	166
237	Progress in 2D photonic crystal Fano resonance photonics. *Progress in Quantum Electronics*, **2014**, 38, 1-74	9.1	165
236	Warming up human body by nanoporous metallized polyethylene textile. *Nature Communications*, **2017**, 8, 496	17.4	162

235	Input-output formalism for few-photon transport in one-dimensional nanophotonic waveguides coupled to a qubit. *Physical Review A*, **2010**, 82,	2.6	158
234	Displacement-sensitive photonic crystal structures based on guided resonance in photonic crystal slabs. *Applied Physics Letters*, **2003**, 82, 1999-2001	3.4	155
233	Near-field radiative cooling of nanostructures. *Nano Letters*, **2012**, 12, 4546-50	11.5	153
232	Nanophotonic control of thermal radiation for energy applications [Invited]. *Optics Express*, **2018**, 26, 15995-16021	3.3	151
231	One-way total reflection with one-dimensional magneto-optical photonic crystals. *Applied Physics Letters*, **2007**, 90, 121133	3.4	148
230	Thermal hyperbolic metamaterials. *Optics Express*, **2013**, 21, 15014-9	3.3	140
229	Tungsten black absorber for solar light with wide angular operation range. *Applied Physics Letters*, **2008**, 92, 211107	3.4	133
228	Scalable and hierarchically designed polymer film as a selective thermal emitter for high-performance all-day radiative cooling. *Nature Nanotechnology*, **2021**, 16, 153-158	28.7	132
227	Applications of Hyperbolic Metamaterial Substrates. *Advances in OptoElectronics*, **2012**, 2012, 1-9	0.5	119
226	Design of subwavelength superscattering nanospheres. *Applied Physics Letters*, **2011**, 98, 043101	3.4	116
225	Anti-parity-time symmetry in diffusive systems. *Science*, **2019**, 364, 170-173	33.3	116
224	Photonic Weyl point in a two-dimensional resonator lattice with a synthetic frequency dimension. *Nature Communications*, **2016**, 7, 13731	17.4	114
223	Color-preserving daytime radiative cooling. *Applied Physics Letters*, **2013**, 103, 223902	3.4	113
222	Thermal meta-device in analogue of zero-index photonics. *Nature Materials*, **2019**, 18, 48-54	27	112
221	Terrestrial radiative cooling: Using the cold universe as a renewable and sustainable energy source. *Science*, **2020**, 370, 786-791	33.3	110
220	Highly tunable refractive index visible-light metasurface from block copolymer self-assembly. *Nature Communications*, **2016**, 7, 12911	17.4	109
219	Principal modes in multimode waveguides. *Optics Letters*, **2005**, 30, 135-7	3	105
218	Hyperbolic Weyl Point in Reciprocal Chiral Metamaterials. *Physical Review Letters*, **2016**, 117, 057401	7.4	101

217	Temporal Coupled-Mode Theory for Fano Resonance in Light Scattering by a Single Obstacle *Journal of Physical Chemistry C*, **2010**, 114, 7324-7329	3.8	100
216	Photonic Aharonov-Bohm effect in photon-phonon interactions. *Nature Communications*, **2014**, 5, 3225	17.4	96
215	Near-field heat transfer between graphene/hBN multilayers. *Physical Review B*, **2017**, 95,	3.3	95
214	Comment on "Nonreciprocal light propagation in a silicon photonic circuit". *Science*, **2012**, 335, 38; author reply 38	33.3	93
213	Heat-flux control and solid-state cooling by regulating chemical potential of photons in near-field electromagnetic heat transfer. *Physical Review B*, **2015**, 91,	3.3	91
212	Numerically exact calculation of electromagnetic heat transfer between a dielectric sphere and plate. *Physical Review B*, **2011**, 84,	3.3	90
211	Wave physics as an analog recurrent neural network. *Science Advances*, **2019**, 5, eaay6946	14.3	89
210	A single photonic cavity with two independent physical synthetic dimensions. *Science*, **2020**, 367, 59-64	33.3	87
209	Adjoint Method and Inverse Design for Nonlinear Nanophotonic Devices. *ACS Photonics*, **2018**, 5, 4781-4787	6.8	85
208	Towards ultra-thin plasmonic silicon wafer solar cells with minimized efficiency loss. *Scientific Reports*, **2014**, 4, 4939	4.9	83
207	Photonic thermal management of coloured objects. *Nature Communications*, **2018**, 9, 4240	17.4	80
206	Rectification of evanescent heat transfer between dielectric-coated and uncoated silicon carbide plates. *Journal of Applied Physics*, **2012**, 112, 024304	2.5	79
205	Exceptional Contours and Band Structure Design in Parity-Time Symmetric Photonic Crystals. *Physical Review Letters*, **2016**, 116, 203902	7.4	77
204	Electronically programmable photonic molecule. *Nature Photonics*, **2019**, 13, 36-40	33.9	77
203	Persistent Directional Current at Equilibrium in Nonreciprocal Many-Body Near Field Electromagnetic Heat Transfer. *Physical Review Letters*, **2016**, 117, 134303	7.4	76
202	All-pass transmission or flattop reflection filters using a single photonic crystal slab. *Applied Physics Letters*, **2004**, 84, 4905-4907	3.4	75
201	Enhancing Near-Field Radiative Heat Transfer with Si-based Metasurfaces. *Physical Review Letters*, **2017**, 118, 203901	7.4	73
200	Model dispersive media in finite-difference time-domain method with complex-conjugate pole-residue pairs. *IEEE Microwave and Wireless Components Letters*, **2006**, 16, 119-121	2.6	73

199	Nearly Total Solar Absorption in Ultrathin Nanostructured Iron Oxide for Efficient Photoelectrochemical Water Splitting. *ACS Photonics*, **2014**, 1, 235-240	6.3	71
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197	Optimization of Multilayer Optical Films with a Memetic Algorithm and Mixed Integer Programming. *ACS Photonics*, **2018**, 5, 684-691	6.3	70
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195	Transforming heat transfer with thermal metamaterials and devices. *Nature Reviews Materials*, **2021**, 6, 488-507	73.3	68
194	Displacement sensing using evanescent tunneling between guided resonances in photonic crystal slabs. *Journal of Applied Physics*, **2005**, 98, 033102	2.5	66
193	Graphene surface plasmons at the near-infrared optical regime. *Scientific Reports*, **2014**, 4, 6559	4.9	63
192	Enhancing Mo:BiVO4 Solar Water Splitting with Patterned Au Nanospheres by Plasmon-Induced Energy Transfer. *Advanced Energy Materials*, **2018**, 8, 1701765	21.8	60
191	Complete All-Optical Silica Fiber Isolator via Stimulated Brillouin Scattering. *Journal of Lightwave Technology*, **2011**, 29, 2267-2275	4	60
190	Reprogrammable Electro-Optic Nonlinear Activation Functions for Optical Neural Networks. *IEEE Journal of Selected Topics in Quantum Electronics*, **2020**, 26, 1-12	3.8	60
189	Fluctuational electrodynamics calculations of near-field heat transfer in non-planar geometries: A brief overview. *Journal of Quantitative Spectroscopy and Radiative Transfer*, **2014**, 132, 3-11	2.1	59
188	Ultracompact nonreciprocal optical isolator based on guided resonance in a magneto-optical photonic crystal slab. *Optics Letters*, **2011**, 36, 4254-6	3	57
187	Understanding the dispersion of coaxial plasmonic structures through a connection with the planar metal-insulator-metal geometry. *Applied Physics Letters*, **2009**, 94, 231111	3.4	57
186	High-Performance Ultrathin BiVO4 Photoanode on Textured Polydimethylsiloxane Substrates for Solar Water Splitting. *ACS Energy Letters*, **2016**, 1, 68-75	20.1	55
185	Zero-Index Bound States in the Continuum. *Physical Review Letters*, **2018**, 121, 263901	7.4	55
184	Experimental demonstration of a photonic Aharonov-Bohm effect at radio frequencies. *Physical Review B*, **2013**, 87,	3.3	54
183	Ultrafast pyroelectric photodetection with on-chip spectral filters. *Nature Materials*, **2020**, 19, 158-162	27	53
182	Few-photon transport in a waveguide coupled to a pair of colocated two-level atoms. *Physical Review A*, **2011**, 84,	2.6	52

181	Axion-Field-Enabled Nonreciprocal Thermal Radiation in Weyl Semimetals. *Nano Letters*, **2020**, 20, 1923-1927	11.5	51
180	Topologically Protected Complete Polarization Conversion. *Physical Review Letters*, **2017**, 119, 167401	7.4	50
179	Analytic properties of two-photon scattering matrix in integrated quantum systems determined by the cluster decomposition principle. *Physical Review Letters*, **2013**, 111, 223602	7.4	50
178	Light trapping in photonic crystals. *Energy and Environmental Science*, **2014**, 7, 2725	35.4	49
177	Significant Enhancement of Near-Field Electromagnetic Heat Transfer in a Multilayer Structure through Multiple Surface-States Coupling. *Physical Review Letters*, **2018**, 120, 063901	7.4	47
176	Thermodynamic limits of energy harvesting from outgoing thermal radiation. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E3609-E3615	11.5	46
175	All-angle negative refraction and evanescent wave amplification using one-dimensional metallodielectric photonic crystals. *Applied Physics Letters*, **2006**, 89, 151102	3.4	46
174	Experimental band structure spectroscopy along a synthetic dimension. *Nature Communications*, **2019**, 10, 3122	17.4	45
173	Negative differential thermal conductance through vacuum. *Applied Physics Letters*, **2012**, 100, 044104	3.4	44
172	High-performance near-field electroluminescent refrigeration device consisting of a GaAs light emitting diode and a Si photovoltaic cell. *Journal of Applied Physics*, **2017**, 122, 143104	2.5	43
171	Coupled double-layer Fano resonance photonic crystal filters with lattice-displacement. *Applied Physics Letters*, **2013**, 103, 241106	3.4	43
170	Broadband Linear-to-Circular Polarization Conversion Enabled by Birefringent Off-Resonance Reflective Metasurfaces. *Physical Review Letters*, **2019**, 123, 237401	7.4	43
169	Optical Absorption Enhancement in Freestanding GaAs Thin Film Nanopyramid Arrays. *Advanced Energy Materials*, **2012**, 2, 1254-1260	21.8	42
168	Integrated near-field thermo-photovoltaics for heat recycling. *Nature Communications*, **2020**, 11, 2545	17.4	42
167	Near-Field Enhanced Negative Luminescent Refrigeration. *Physical Review Applied*, **2016**, 6,	4.3	40
166	Nonvolatile bistable all-optical switch from mechanical buckling. *Applied Physics Letters*, **2011**, 98, 241104	3.4	40
165	Photonic Structure Textile Design for Localized Thermal Cooling Based on a Fiber Blending Scheme. *ACS Photonics*, **2016**, 3, 2420-2426	6.3	40
164	Subwavelength angle-sensing photodetectors inspired by directional hearing in small animals. *Nature Nanotechnology*, **2018**, 13, 1143-1147	28.7	40

163	Theory of many-body radiative heat transfer without the constraint of reciprocity. *Physical Review B* , **2018**, 97,	3.3	38
162	Light Guiding by Effective Gauge Field for Photons. *Physical Review X*, **2014**, 4,	9.1	37
161	Creating large bandwidth line defects by embedding dielectric waveguides into photonic crystal slabs. *Applied Physics Letters*, **2002**, 81, 3915-3917	3.4	37
160	Inverse Design of Photonic Crystals through Automatic Differentiation. *ACS Photonics*, **2020**, 7, 1729-1741	6.3	36
159	Topological optical differentiator. *Nature Communications*, **2021**, 12, 680	17.4	36
158	Metamaterials for radiative sky cooling. *National Science Review*, **2018**, 5, 132-133	10.8	35
157	Thermal excitation of plasmons for near-field thermophotovoltaics. *Applied Physics Letters*, **2014**, 105, 073903	3.4	35
156	Two-photon transport through a waveguide coupling to a whispering-gallery resonator containing an atom and photon-blockade effect. *Physical Review A*, **2013**, 87,	2.6	35
155	Tutorial on Electromagnetic Nonreciprocity and its Origins. *Proceedings of the IEEE*, **2020**, 108, 1684-1727	14.3	35
154	Generating arbitrary topological windings of a non-Hermitian band. *Science*, **2021**, 371, 1240-1245	33.3	35
153	Synthetic space with arbitrary dimensions in a few rings undergoing dynamic modulation. *Physical Review B*, **2018**, 97,	3.3	34
152	Three-Dimensional Printable Nanoporous Polymer Matrix Composites for Daytime Radiative Cooling. *Nano Letters*, **2021**, 21, 1493-1499	11.5	34
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149	Wannier basis design and optimization of a photonic crystal waveguide crossing. *IEEE Photonics Technology Letters*, **2005**, 17, 1875-1877	2.2	33
148	Gate-Tunable Near-Field Heat Transfer. *ACS Photonics*, **2019**, 6, 709-719	6.3	30
147	Absence of unidirectionally propagating surface plasmon-polaritons at nonreciprocal metal-dielectric interfaces. *Nature Communications*, **2020**, 11, 674	17.4	29
146	Electroluminescent refrigeration by ultra-efficient GaAs light-emitting diodes. *Journal of Applied Physics*, **2018**, 123, 173104	2.5	29

145	Semiconductor-based Multilayer Selective Solar Absorber for Unconcentrated Solar Thermal Energy Conversion. *Scientific Reports*, **2017**, 7, 5362	4.9	29
144	Achieving Arbitrary Control over Pairs of Polarization States Using Complex Birefringent Metamaterials. *Physical Review Letters*, **2017**, 118, 253902	7.4	29
143	Subambient daytime radiative cooling textile based on nanoprocessed silk. *Nature Nanotechnology*, **2021**,	28.7	28
142	Photonic Gauge Potential in One Cavity with Synthetic Frequency and Orbital Angular Momentum Dimensions. *Physical Review Letters*, **2019**, 122, 083903	7.4	27
141	Integrated Nonmagnetic Optical Isolators Based on Photonic Transitions ^{ast}. *IEEE Journal of Selected Topics in Quantum Electronics*, **2010**, 16, 459-466	3.8	27
140	Higher-order topological insulators in synthetic dimensions. *Light: Science and Applications*, **2020**, 9, 131	16.7	27
139	Robust and efficient wireless power transfer using a switch-mode implementation of a nonlinear parity–time symmetric circuit. *Nature Electronics*, **2020**, 3, 273-279	28.4	27
138	Three-Dimensional Dynamic Localization of Light from a Time-Dependent Effective Gauge Field for Photons. *Physical Review Letters*, **2015**, 114, 243901	7.4	26
137	Homotopy characterization of non-Hermitian Hamiltonians. *Physical Review B*, **2020**, 101,	3.3	26
136	Sub-Wavelength Passive Optical Isolators Using Photonic Structures Based on Weyl Semimetals. *Advanced Optical Materials*, **2020**, 8, 2000100	8.1	26
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134	Experimental demonstration of energy harvesting from the sky using the negative illumination effect of a semiconductor photodiode. *Applied Physics Letters*, **2019**, 114, 161102	3.4	23
133	Quantum critical coupling conditions for zero single-photon transmission through a coupled atom-resonator-waveguide system. *Physical Review A*, **2010**, 82,	2.6	23
132	Planar immersion lens with metasurfaces. *Physical Review B*, **2015**, 91,	3.3	22
131	Meron Spin Textures in Momentum Space. *Physical Review Letters*, **2020**, 124, 106103	7.4	22
130	Retarded Charge–Carrier Recombination in Photoelectrochemical Cells from Plasmon-Induced Resonance Energy Transfer. *Advanced Energy Materials*, **2020**, 10, 2000570	21.8	22
129	Effective electric-field force for a photon in a synthetic frequency lattice created in a waveguide modulator. *Physical Review A*, **2018**, 97,	2.6	22
128	Reflectionless multichannel wavelength demultiplexer in a transmission resonator configuration. *IEEE Journal of Quantum Electronics*, **2003**, 39, 160-165	2	22

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126	Broadening Near-Field Emission for Performance Enhancement in Thermophotovoltaics. *Nano Letters*, **2020**, 20, 1654-1661	11.5	21
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124	Anti-Hermitian photodetector facilitating efficient subwavelength photon sorting. *Nature Communications*, **2018**, 9, 316	17.4	20
123	Forward-Mode Differentiation of Maxwell's Equations. *ACS Photonics*, **2019**, 6, 3010-3016	6.3	20
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121	Resonance fluorescence in a waveguide geometry. *Physical Review A*, **2012**, 85,	2.6	20
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117	Inverse Design of Lightweight Broadband Reflector for Relativistic Lightsail Propulsion. *ACS Photonics*, **2020**, 7, 2350-2355	6.3	19
116	Narrowband thermal emission from a uniform tungsten surface critically coupled with a photonic crystal guided resonance. *Optics Express*, **2016**, 24, 29896-29907	3.3	19
115	High-Temperature Polarization-Free III-Nitride Solar Cells with Self-Cooling Effects. *ACS Photonics*, **2019**, 6, 2096-2103	6.3	18
114	Parallel Programming of an Arbitrary Feedforward Photonic Network. *IEEE Journal of Selected Topics in Quantum Electronics*, **2020**, 26, 1-13	3.8	17
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107	Radiative Thermal Router Based on Tunable Magnetic Weyl Semimetals. *ACS Photonics*, **2020**, 7, 3257-3263	6.3	15
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94	Pulse shortening in an actively mode-locked laser with parity-time symmetry. *APL Photonics*, **2018**, 3, 086103	5.2	13
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92	Nonreciprocal Photonics Without Magneto-Optics. *IEEE Antennas and Wireless Propagation Letters*, **2018**, 17, 1948-1952	3.8	12

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89	Inverse Design of Metasurfaces Based on Coupled-Mode Theory and Adjoint Optimization. *ACS Photonics*, **2021**, 8, 2265-2273	6.3	12
88	PT-symmetric spectral singularity and negative-frequency resonance. *Physical Review A*, **2017**, 95,	2.6	11
87	Nodal chain semimetal in geometrically frustrated systems. *Physical Review B*, **2019**, 99,	3.3	11
86	An Ultra-Compact Circulator Using Two-Dimensional Magneto-Optical Photonic Crystals. *Journal of the Magnetics Society of Japan*, **2006**, 30, 641-645		11
85	Topological complex-energy braiding of non-Hermitian bands. *Nature*, **2021**, 598, 59-64	50.4	11
84	Experimental Demonstration of Dynamical Input Isolation in Nonadiabatically Modulated Photonic Cavities. *ACS Photonics*, **2019**, 6, 162-169	6.3	10
83	Photonic Refrigeration from Time-Modulated Thermal Emission. *Physical Review Letters*, **2020**, 124, 077402	7.4	9
82	Nonreciprocal radiative heat transfer between two planar bodies. *Physical Review B*, **2020**, 101,	3.3	9
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79	Dynamic band structure measurement in the synthetic space. *Science Advances*, **2021**, 7,	14.3	9
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76	Violating Kirchhoff's Law of Thermal Radiation in Semitransparent Structures. *ACS Photonics*, **2021**, 8, 2417-2424	6.3	8
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