Xiaoyong Hu

List of Publications by Year
in descending order

101	3,177	147801	168389
papers	citations	31 h-index	53 g-index

109	109	109	3434
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Picosecond and low-power all-optical switching based on an organic photonic-bandgap microcavity. Nature Photonics, 2008, 2, 185-189.	31.4	273
2	Ultrafast Allâ€Optical Switching. Advanced Optical Materials, 2017, 5, 1600665.	7.3	185
3	Epsilonâ€Nearâ€Zero Photonics: A New Platform for Integrated Devices. Advanced Optical Materials, 2018, 6, 1701292.	7.3	181
4	On-chip plasmon-induced transparency based on plasmonic coupled nanocavities. Scientific Reports, 2014, 4, 3752.	3.3	140
5	Roadmap on all-optical processing. Journal of Optics (United Kingdom), 2019, 21, 063001.	2.2	128
6	Large-Scale Thin CsPbBr₃ Single-Crystal Film Grown on Sapphire via Chemical Vapor Deposition: Toward Laser Array Application. ACS Nano, 2020, 14, 15605-15615.	14.6	112
7	Applications of Topological Photonics in Integrated Photonic Devices. Advanced Optical Materials, 2017, 5, 1700357.	7.3	110
8	Chemical Polishing of Perovskite Surface Enhances Photovoltaic Performances. Journal of the American Chemical Society, 2022, 144, 1700-1708.	13.7	88
9	Integrated nanophotonic wavelength router based on an intelligent algorithm. Optica, 2019, 6, 1367.	9.3	87
10	Ultralow-power and ultrafast all-optical tunable plasmon-induced transparency in metamaterials at optical communication range. Scientific Reports, 2013, 3, 2338.	3.3	72
11	Ultracompact all-optical logic gates based on nonlinear plasmonic nanocavities. Nanophotonics, 2017, 6, 365-376.	6.0	72
12	Fano-resonance in one-dimensional topological photonic crystal heterostructure. Optics Express, 2018, 26, 8634.	3.4	68
13	Tunable ultracompact chip-integrated multichannel filter based on plasmon-induced transparencies. Applied Physics Letters, 2014, 104, .	3.3	67
14	Fabryâ€“PÃ©rot Oscillation and Room Temperature Lasing in Perovskite Cubeâ€Corner Pyramid Cavities. Small, 2018, 14, 1703136.	10.0	61
15	Fast and Lowâ€Power Allâ€Optical Tunable Fano Resonance in Plasmonic Microstructures. Advanced Optical Materials, 2013, 1, 61-67.	7.3	56
16	An actively ultrafast tunable giant slow-light effect in ultrathin nonlinear metasurfaces. Light: Science and Applications, 2015, 4, e302-e302.	16.6	56
17	Ultrahigh-contrast and wideband nanoscale photonic crystal all-optical diode. Optics Letters, 2011, 36, 4668.	3.3	52
18	Ultracompact Chipâ€Integrated Electromagnetically Induced Transparency in a Single Plasmonic Composite Nanocavity. Advanced Optical Materials, 2014, 2, 320-325.	7.3	51

#	Article	IF	Citations
19	Lowâ€Power and Highâ€Contrast Nanoscale Allâ€Optical Diodes Via Nanocomposite Photonic Crystal Microcavities. Advanced Functional Materials, 2011, 21, 1803-1809.	14.9	48
20	Spintronics of Hybrid Organicâ€“Inorganic Perovskites: Miraculous Basis of Integrated Optoelectronic Devices. Advanced Optical Materials, 2019, 7, 1900350.	7.3	47
21	Topological Phase Transition in the Non-Hermitian Coupled Resonator Array. Physical Review Letters, 2020, 125, 013902.	7.8	45
22	Topologically protected quantum entanglement emitters. Nature Photonics, 2022, 16, 248-257.	31.4	45
23	High-Temperature Continuous-Wave Pumped Lasing from Large-Area Monolayer Semiconductors Grown by Chemical Vapor Deposition. ACS Nano, 2018, 12, 9390-9396.	14.6	44
24	On-chip nanophotonic topological rainbow. Nature Communications, 2022, 13, 2586.	12.8	43
25	Low-power and ultrafast all-optical tunable plasmon-induced transparency in plasmonic nanostructures. Applied Physics Letters, 2013, 102, 201119.	3.3	42
26	Ultracompact all-optical full-adder and half-adder based on nonlinear plasmonic nanocavities. Nanophotonics, 2017, 6, 1161-1173.	6.0	40
27	Ferroelectric Hybrid Plasmonic Waveguide for All-Optical Logic Gate Applications. Plasmonics, 2013, 8, 749-754.	3.4	39
28	Thermoâ€optical Tunable Ultracompact Chipâ€Integrated 1D Photonic Topological Insulator. Advanced Optical Materials, 2018, 6, 1701071.	7.3	38
29	Plasmon-induced transparency effect for ultracompact on-chip devices. Nanophotonics, 2019, 8, 1125-1149.	6.0	36
30	Chip-integrated ultrawide-band all-optical logic comparator in plasmonic circuits. Scientific Reports, 2014, 4, 3869.	3.3	35
31	Ultrafast Electron Cooling and Decay in Monolayer WS₂ Revealed by Time- and Energy-Resolved Photoemission Electron Microscopy. Nano Letters, 2020, 20, 3747-3753.	9.1	35
32	Nanoscale Surface Plasmon All-Optical Diode Based on Plasmonic Slot Waveguides. Plasmonics, 2011, 6, 619-624.	3.4	31
33	Nanoscale on-chip all-optical logic parity checker in integrated plasmonic circuits in optical communication range. Scientific Reports, 2016, 6, 24433.	3.3	30
34	Lowâ€Power and Ultrafast Allâ€Optical Tunable Nanometerâ€Scale Photonic Metamaterials. Advanced Materials, 2011, 23, 4295-4300.	21.0	29
35	Correlation between Near-Field Enhancement and Dephasing Time in Plasmonic Dimers. Physical Review Letters, 2020, 124, 163901.	7.8	29
36	Reconfigurable topological states in valley photonic crystals. Physical Review Materials, 2018, 2, .	2.4	29

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37	AI-assisted on-chip nanophotonic convolver based on silicon metasurface. Nanophotonics, 2020, 9, 3315-3322.	6.0	29
38	Onâ€Chip Optical Switch Based on Plasmonâ€“Photon Hybrid Nanostructureâ€Coated Multicomponent Nanocomposite. Advanced Optical Materials, 2016, 4, 1159-1166.	7.3	28
39	Ultrafast onâ€Chip Remotelyâ€Triggered Allâ€Optical Switching Based on Epsilonâ€Nearâ€Zero Nanocomposites. Laser and Photonics Reviews, 2017, 11, 1700042.	8.7	25
40	Ultralow-power all-optical tunable double plasmon-induced transparencies in nonlinear metamaterials. Applied Physics Letters, 2014, 104, .	3.3	24
41	Low-dimensional materials-based field-effect transistors. Journal of Materials Chemistry C, 2018, 6, 924-941.	5.5	24
42	Integrated ultracompact and broadband wavelength demultiplexer based on multi-component nano-cavities. Scientific Reports, 2016, 6, 27428.	3.3	23
43	Nanoscale all-optical logic devices. Science China: Physics, Mechanics and Astronomy, 2019, 62, 1.	5.1	23
44	Nanophotonic Polarization Routers Based on an Intelligent Algorithm. Advanced Optical Materials, 2020, 8, 1902018.	7.3	22
45	Quantum Topological Photonics. Advanced Optical Materials, 2021, 9, 2001739.	7.3	22
46	Unidirectional transmission in 1D nonlinear photonic crystal based on topological phase reversal by optical nonlinearity. AIP Advances, 2017, 7, .	1.3	21
47	Chip-integrated all-optical diode based on nonlinear plasmonic nanocavities covered with multicomponent nanocomposite. Nanophotonics, 2017, 6, 329-339.	6.0	19
48	All-optical switch based on novel physics effects. Journal of Applied Physics, 2021, 129, .	2.5	18
49	Near-Field Imaging and Time-Domain Dynamics of Photonic Topological Edge States in Plasmonic Nanochains. Nano Letters, 2021, 21, 9270-9278.	9.1	16
50	Ultrafast tunable filter in two-dimensional organic photonic crystal. Optics Letters, 2006, 31, 371.	3.3	15
51	Ultrawideâ€Band Unidirectional Surface Plasmon Polariton Launchers. Advanced Optical Materials, 2013, 1, 792-797.	7.3	15
52	On-Chip Multiple Electromagnetically Induced Transparencies in Photonâ€“Plasmon Composite Nanocavities. ACS Photonics, 2016, 3, 2068-2073.	6.6	14
53	Topological properties of coupled resonator array based on accurate band structure. Physical Review Materials, 2018, 2, .	2.4	14
54	Polarization-selected nonlinearity transition in gold dolmens coupled to an epsilon-near-zero material. Nanophotonics, 2020, 9, 4839-4851.	6.0	14

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55	Advances in Photonic Devices Based on Optical Phase-Change Materials. Molecules, 2021, 26, 2813.	3.8	13
56	Silicon Thermo-Optic Switches with Graphene Heaters Operating at Mid-Infrared Waveband. Nanomaterials, 2022, 12, 1083.	4.1	13
57	Ultracompact and Unidirectional On-Chip Light Source Based on Epsilon-Near-Zero Materials in an Optical Communication Range. Physical Review Applied, 2019, 12, .	3.8	11
58	Tunable time response of the nonlinearity of nanocomposites by doping semiconductor quantum dots. Optics Express, 2009, 17, 18858.	3.4	10
59	Composite modulation of Fano resonance in plasmonic microstructures by electric-field and microcavity. Applied Physics Letters, 2014, 105, 181114.	3.3	10
60	Asymmetric Light Excitation for Photodetectors Based on Nanoscale Semiconductors. ACS Nano, 2017, 11, 549-557.	14.6	10
61	Higher-order topological biphoton corner states in two-dimensional photonic lattices. Physical Review Research, 2022, 4, .	3.6	10
62	Ultralow-power all-optical tunable dual Fano resonances in nonlinear metamaterials. Applied Physics Letters, 2013, 103, .	3.3	9
63	Matrix eigenvalue solver based on reconfigurable photonic neural network. Nanophotonics, 2022, 11, 4089-4099.	6.0	9
64	Multilayer Graphene:Polycrystalline ITO for Ultralowâ€Power Active Control of Polarizationâ€Insensitive, Metamaterialâ€Induced Transparency. Advanced Optical Materials, 2014, 2, 1141-1148.	7.3	8
65	Nanoscale all-optical devices based on surface plasmon polaritons. Science Bulletin, 2014, 59, 2661-2665.	1.7	8
66	Broadband dispersive free, large, and ultrafast nonlinear material platforms for photonics. Nanophotonics, 2020, 9, 4609-4618.	6.0	8
67	Ultralow-power on-chip all-optical Fano diode based on uncoupled nonlinear photonic-crystal nanocavities. Journal of Optics (United Kingdom), 2018, 20, 034004.	2.2	7
68	All-optical tunable dual Fano resonance in nonlinear metamaterials in optical communication range. Journal of Modern Optics, 2018, 65, 206-212.	1.3	7
69	All-Optical Mode-Selective Router Based on Broken Anti- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mrow><mml:mrow><mml:mi mathvariant="script">P</mml:mi><mml:mi mathvariant="script">T</mml:mi></mml:mrow></mml:mrow></mml:math> Symmetry. Physical Review Applied, 2020, 14, .	3.8	7
70	Topological Nanophotonic Wavelength Router Based on Topology Optimization. Micromachines, 2021, 12, 1506.	2.9	7
71	All-optical tunable photonic bandgap microcavities with a femtosecond time response. Optics Letters, 2006, 31, 2777.	3.3	6
72	Ultralowâ€Power Allâ€Optical Logic Data Distributor Based on Resonant Excitation Enhanced Nonlinearity by Upconversion Radiative Transfer. Advanced Optical Materials, 2017, 5, 1700360.	7.3	6

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73	Onâ€Chip Dual Electroâ€Optic and Optoelectric Modulation Based on ZnO Nanowireâ€Coated Photonic Crystal Nanocavity. Advanced Optical Materials, 2018, 6, 1800374.	7.3	6
74	Engineering Ultrafast Carrier Dynamics at the Graphene/GaAs Interface by Bulk Doping Level. Advanced Optical Materials, 2019, 7, 1900580.	7.3	6
75	Light Emission from Selfâ€Assembled and Laserâ€Crystallized Chalcogenide Metasurface. Advanced Optical Materials, 2020, 8, 1901236.	7.3	6
76	Ultrafast Allâ€Optical Polarization Switching Based on Composite Metasurfaces with Gratings and an Epsilonâ€Nearâ€Zero Film. Advanced Photonics Research, 2021, 2, 2000167.	3.6	6
77	Encircling an exceptional point in a multiwaveguide antiâ€“parity-time-symmetry system. Physical Review A, 2021, 103, .	2.5	6
78	Influence factors of resolution in laser accelerated proton radiography and image deblurring. AIP Advances, 2021, 11, .	1.3	6
79	Controlling Microring Resonator Extinction Ratio via Metalâ€Halide Perovskite Nonlinearity. Advanced Optical Materials, 2021, 9, 2100783.	7.3	6
80	Topological hybrid nanocavity for coupling phase transition. Journal of Optics (United Kingdom), 2021, 23, 124002.	2.2	6
81	Non-Hermitian high-quality-factor topological photonic crystal cavity. Physical Review A, 2022, 105, .	2.5	6
82	Large Nonlinearity Enhancement of Ag/MEH-PPV Nanocomposite by Surface Plasmon Resonance at 1,550 nm. Plasmonics, 2012, 7, 159-165.	3.4	5
83	Low-power all-optical tunable plasmonic-mode coupling in nonlinear metamaterials. Applied Physics Letters, 2014, 104, .	3.3	5
84	Effects of Intercalation on the Interlayer Electron-Transfer Process in Mo-Based Multilayered MXene Flakes. Journal of Physical Chemistry C, 2021, 125, 17232-17240.	3.1	5
85	All-optical binary computation based on inverse design method. Nanophotonics, 2022, 11, 2117-2127.	6.0	5
86	Edge states in plasmonic meta-arrays. Nanophotonics, 2022, .	6.0	5
87	Exciton polaritons based on planar dielectric Si asymmetric nanogratings coupled with J-aggregated dyes film. Frontiers of Optoelectronics, 2020, 13, 4-11.	3.7	4
88	Engineering of Electron Confinement through Defectâ€Based Localized Polarization on SrTiO 3 Surface. Advanced Electronic Materials, 2021, 7, 2000968.	5.1	4
89	Structural surface wave properties of amorphous Bi2Te3 by pulsed laser deposition in the visible and near-infrared regions. AIP Advances, 2018, 8, .	1.3	3
90	Low-power all-optical tunable sharp trapped-mode resonances in asymmetrical planar WS2 exciton-polariton gratings. Applied Physics Letters, 2020, 116, .	3.3	3

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91	Photonic crystal and topological photonics provide new modulation degrees of freedom. Frontiers of Optoelectronics, 2020, 13, 1-1.	3.7	3
92	Tracing the formation of oxygen vacancies at the conductive LaAlO₃/SrTiO₃ interface via photoemission. , 2022, 1, 210011-210011.		3
93	All-Optical Tunable Wavelength-Division Multiplexing Based on Colloidal Crystal Coated Silver Film. Plasmonics, 2012, 7, 589-594.	3.4	2
94	Ultafast organic nonlinear optical molecules and the realization of mesoscopic photonic devices. Science Bulletin, 2010, 55, 2111-2117.	1.7	1
95	On-Chip Cascaded Bandpass Filter and Wavelength Router Using an Intelligent Algorithm. IEEE Photonics Journal, 2021, 13, 1-8.	2.0	1
96	Ultrafast tunable filter in two-dimensional organic photonic crystal. , 2006, , .		0
97	Ultrafast Organic Photonic Crystal Optical Switching. , 2007, , .		0
98	Low-Power Photonic Crystal All-Optical Switching. , 2007, , .		0
99	Electro-Optic Modulators: On-Chip Dual Electro-Optic and Optoelectric Modulation Based on ZnO Nanowire-Coated Photonic Crystal Nanocavity (Advanced Optical Materials 17/2018). Advanced Optical Materials, 2018, 6, 1870069.	7.3	0
100	Vortex Laser Based on a Plasmonic Ring Cavity. Crystals, 2021, 11, 901.	2.2	0
101	Quantum Topological Photonics (Advanced Optical Materials 15/2021). Advanced Optical Materials, 2021, 9, 2170056.	7.3	0