Yongmin Liu

List of Publications by Year
in descending order

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78 papers	7,811 citations	71102 41 h-index	76900 74 g-index
79 all docs	79 docs citations	79 times ranked	6844 citing authors

#	Article	IF	Citations
1	Metamaterials: a new frontier of science and technology. Chemical Society Reviews, 2011, 40, 2494.	38.1	855
2	Optical Negative Refraction in Bulk Metamaterials of Nanowires. Science, 2008, 321, 930-930.	12.6	798
3	Deep-Learning-Enabled On-Demand Design of Chiral Metamaterials. ACS Nano, 2018, 12, 6326-6334.	14.6	612
4	Deep learning for the design of photonic structures. Nature Photonics, 2021, 15, 77-90.	31.4	512
5	Probabilistic Representation and Inverse Design of Metamaterials Based on a Deep Generative Model with Semiâ€Supervised Learning Strategy. Advanced Materials, 2019, 31, e1901111.	21.0	332
6	Optical chiral metamaterials: a review of the fundamentals, fabrication methods and applications. Nanotechnology, 2016, 27, 412001.	2.6	282
7	Plasmonic Luneburg and Eaton lenses. Nature Nanotechnology, 2011, 6, 151-155.	31.5	274
8	Circular Dichroism Metamirrors with Near-Perfect Extinction. ACS Photonics, 2016, 3, 2096-2101.	6.6	240
9	Transformational Plasmon Optics. Nano Letters, 2010, 10, 1991-1997.	9.1	229
10	All-angle negative refraction and imaging in a bulk medium made of metallic nanowires in the visible region. Optics Express, 2008, 16, 15439.	3.4	219
11	Optical Forces in Hybrid Plasmonic Waveguides. Nano Letters, 2011, 11, 321-328.	9.1	213
12	Origamiâ€Based Reconfigurable Metamaterials for Tunable Chirality. Advanced Materials, 2017, 29, 1700412.	21.0	193
13	Graphene Plasmonic Metasurfaces to Steer Infrared Light. Scientific Reports, 2015, 5, 12423.	3.3	190
14	Subwavelength Discrete Solitons in Nonlinear Metamaterials. Physical Review Letters, 2007, 99, 153901.	7.8	187
15	Compact Magnetic Antennas for Directional Excitation of Surface Plasmons. Nano Letters, 2012, 12, 4853-4858.	9.1	165
16	Metasurfaces for manipulating surface plasmons. Applied Physics Letters, 2013, 103, .	3.3	139
17	Dynamic Plasmonic Color Generation Based on Phase Transition of Vanadium Dioxide. Advanced Optical Materials, 2018, 6, 1700939.	7.3	138
18	Preserving Spin States upon Reflection: Linear and Nonlinear Responses of a Chiral Meta-Mirror. Nano Letters, 2017, 17, 7102-7109.	9.1	124

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19	Manipulating Smith-Purcell Emission with Babinet Metasurfaces. Physical Review Letters, 2016, 117, 157401.	7.8	108
20	All-Optical Chirality-Sensitive Sorting via Reversible Lateral Forces in Interference Fields. ACS Nano, 2017, 11, 4292-4300.	14.6	99
21	Recent advances in transformation optics. Nanoscale, 2012, 4, 5277.	5.6	89
22	Pushing the Limits of Functionalityâ€Multiplexing Capability in Metasurface Design Based on Statistical Machine Learning. Advanced Materials, 2022, 34, e2110022.	21.0	87
23	Plasmonic metamaterials. Nanotechnology Reviews, 2014, 3, .	5.8	77
24	Chiral metamirrors for broadband spin-selective absorption. Applied Physics Letters, 2017, 110, .	3.3	77
25	Dual-Band Light Focusing Using Stacked Graphene Metasurfaces. ACS Photonics, 2017, 4, 1770-1775.	6.6	72
26	An Active Metamaterial Platform for Chiral Responsive Optoelectronics. Advanced Materials, 2015, 27, 4377-4383.	21.0	70
27	Realizing Colorful Holographic Mimicry by Metasurfaces. Advanced Materials, 2021, 33, e2005864.	21.0	70
28	Giant Suppression of Photobleaching for Single Molecule Detection via the Purcell Effect. Nano Letters, 2013, 13, 5949-5953.	9.1	69
29	Enhancing circular dichroism by chiral hotspots in silicon nanocube dimers. Nanoscale, 2018, 10, 8779-8786.	5.6	64
30	Experimental Demonstration of Multidimensional and Multifunctional Metalenses Based on Photonic Spin Hall Effect. ACS Photonics, 2020, 7, 512-518.	6.6	62
31	Asymmetric excitation of surface plasmons by dark mode coupling. Science Advances, 2016, 2, e1501142.	10.3	57
32	Electrically Driven Tunable Broadband Polarization States via Active Metasurfaces Based on Jouleâ€Heatâ€Induced Phase Transition of Vanadium Dioxide. Laser and Photonics Reviews, 2021, 15, 2100155.	8.7	57
33	Dynamically Switching the Polarization State of Light Based on the Phase Transition of Vanadium Dioxide. Physical Review Applied, 2018, 9, .	3.8	53
34	A Broadband Optical Diode for Linearly Polarized Light Using Symmetryâ€Breaking Metamaterials. Advanced Optical Materials, 2017, 5, 1700600.	7.3	52
35	Interfacing photonics with artificial intelligence: an innovative design strategy for photonic structures and devices based on artificial neural networks. Photonics Research, 2021, 9, B135.	7.0	52
36	Self-Induced Backaction Optical Pulling Force. Physical Review Letters, 2018, 120, 123901.	7.8	51

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37	Complete Control of Smith-Purcell Radiation by Graphene Metasurfaces. ACS Photonics, 2019, 6, 1947-1954.	6.6	47
38	A data-efficient self-supervised deep learning model for design and characterization of nanophotonic structures. Science China: Physics, Mechanics and Astronomy, 2020, 63, 1.	5.1	47
39	Grapheneâ€“metal hybrid metamaterials for strong and tunable circular dichroism generation. Optics Letters, 2018, 43, 2636.	3.3	44
40	Plasmonicâ€Enhanced Cholesteric Films: Coassembling Anisotropic Gold Nanorods with Cellulose Nanocrystals. Advanced Optical Materials, 2019, 7, 1801816.	7.3	44
41	Unidirectional Excitation of Radiative-Loss-Free Surface Plasmon Polaritons in <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi mathvariant="script">P</mml:mi><mml:mi mathvariant="script">T</mml:mi></mml:mrow></mml:math> -Symmetric Systems. Physical Review Letters, 2017, 119, 077401.	7.8	43
42	Line Degeneracy and Strong Spin-Orbit Coupling of Light with Bulk Bianisotropic Metamaterials. Physical Review Letters, 2015, 115, 067402.	7.8	40
43	Manipulating Cherenkov Radiation and Smithâ€“Purcell Radiation by Artificial Structures. Advanced Optical Materials, 2019, 7, 1801666.	7.3	40
44	Polarization Shaping of Freeâ€Electron Radiation by Gradient Bianisotropic Metasurfaces. Laser and Photonics Reviews, 2021, 15, 2000426.	8.7	36
45	Thermal plasmonic interconnects in graphene. Physical Review B, 2014, 90, .	3.2	33
46	Deep sub-wavelength nanofocusing of UV-visible light by hyperbolic metamaterials. Scientific Reports, 2016, 6, 38645.	3.3	33
47	Harnessing Evanescent Waves by Bianisotropic Metasurfaces. Laser and Photonics Reviews, 2020, 14, 1900244.	8.7	33
48	Ultrafast optical manipulation of magnetic order in ferromagnetic materials. Nano Convergence, 2020, 7, 35.	12.1	33
49	Efficient Generation of Microwave Plasmonic Vortices via a Single Deepâ€Subwavelength Metaâ€Particle. Laser and Photonics Reviews, 2018, 12, 1800010.	8.7	32
50	Controlling the degrees of freedom in metasurface designs for multi-functional optical devices. Nanoscale Advances, 2019, 1, 3786-3806.	4.6	30
51	Near-field surface plasmons on quasicrystal metasurfaces. Scientific Reports, 2016, 6, 26.	3.3	27
52	Microwave-Vortex-Beam Generation Based on Spoof-Plasmon Ring Resonators. Physical Review Applied, 2020, 13, .	3.8	26
53	Polarization-dependent near-field phonon nanoscopy of oxides: SrTiO3,ÂLiNbO3 , and PbZr0.2Ti0.8O3. Physical Review B, 2019, 100, .	3.2	21
54	All-Optical Manipulation of Magnetization in Ferromagnetic Thin Films Enhanced by Plasmonic Resonances. Nano Letters, 2020, 20, 6437-6443.	9.1	21

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55	Dual-mode subwavelength trapping by plasmonic tweezers based on V-type nanoantennas. Optics Letters, 2019, 44, 319.	3.3	19
56	Nearâ€Infrared Reflection Modulation Through Electrical Tuning of Hybrid Graphene Metasurfaces. Advanced Optical Materials, 2022, 10, .	7.3	18
57	Optical Pulling Forces Enabled by Hyperbolic Metamaterials. Nano Letters, 2021, 21, 10431-10437.	9.1	18
58	Polariton Photonics Using Structured Metals and 2D Materials. Advanced Optical Materials, 2020, 8, 1901090.	7.3	15
59	Allâ€Optical Helicityâ€Dependent Switching in Hybrid Metalâ€“Ferromagnet Thin Films. Advanced Optical Materials, 2020, 8, 2000379.	7.3	15
60	Ultrafast fluorescent decay induced by metal-mediated dipoleâ€“dipole interaction in two-dimensional molecular aggregates. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 10017-10022.	7.1	14
61	Fluorescence enhancement by a two-dimensional dielectric annular Bragg resonant cavity. Optics Express, 2010, 18, 25029.	3.4	13
62	Photonic Heterostructures for Spin-Flipped Beam Splitting. Physical Review Applied, 2019, 12, .	3.8	13
63	3D direct printing of mechanical and biocompatible hydrogel meta-structures. Bioactive Materials, 2022, 10, 48-55.	15.6	13
64	Self-Assembly of Silicaâ€“Gold Coreâ€“Shell Microparticles by Electric Fields Toward Dynamically Tunable Metamaterials. ACS Applied Materials & Interfaces, 2021, 13, 14417-14422.	8.0	11
65	Prediction of Deterministic All-Optical Switching of Ferromagnetic Thin Film by Ultrafast Optothermal and Optomagnetic Couplings. Scientific Reports, 2017, 7, 13513.	3.3	10
66	Demonstration of microwave plasmonic-like vortices with tunable topological charges by a single metaparticle. Applied Physics Letters, 2021, 118, .	3.3	9
67	Inverse Design of Dielectric Resonator Cloaking Based on Topology Optimization. Plasmonics, 2017, 12, 1717-1723.	3.4	8
68	Edge Doping Effect to the Surface Plasmon Resonances in Graphene Nanoribbons. Journal of Physical Chemistry C, 2019, 123, 19820-19827.	3.1	8
69	Rapid Identification of DNA Fragments through Direct Sequencing with Electroâ€Optical Zeroâ€Mode Waveguides. Advanced Materials, 2022, 34, e2108479.	21.0	8
70	Reconfigurable Vector Vortex Beams Using Spoof Surface Plasmon Ring Resonators. IEEE Transactions on Antennas and Propagation, 2022, 70, 6795-6803.	5.1	8
71	Infrared Plasmonic Resonators Based on Self-Assembled Coreâ€“Shell Particles. ACS Photonics, 2018, 5, 844-851.	6.6	6
72	Nonreciprocal Isolation and Wavelength Conversion via a Spatiotemporally Engineered Cascaded Cavity. Physical Review Applied, 2020, 13, .	3.8	5

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73	Controlling the Bidirectional Circular Polarization States Using Ultrathin Back-to-Back Quarter-Wave Plates Cavity. Scientific Reports, 2017, 7, 15257.	3.3	1
74	Plasmon resonances of strongly coupled nanodisks. , 2007, , .		0
75	A Chiral Meta-Mirror Enabled Linear and Nonlinear Chiroptical Responses. , 2018, , .		0
76	A Metamaterial for Superscattering Light. Physics Magazine, 2019, 12, .	0.1	0
77	Accelerating the Design of Photonic Metamaterials by Artificial Intelligence. , 2020, , .		0
78	Artificial Intelligence Meets Engineered Photonic Materials: introduction to special issue. Optical Materials Express, 2021, 11, 3431.	3.0	0