

# Nanfang Yu

## List of Publications by Year in descending order

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Version: 2024-02-01

91  
papers

27,786  
citations

38742

50  
h-index

71685

76  
g-index

94  
all docs

94  
docs citations

94  
times ranked

17868  
citing authors

#	ARTICLE	IF	CITATIONS
1	Resonance for Analog Recurrent Neural Network. ACS Photonics, 2022, 9, 1647-1654.	6.6	5
2	Multifunctional Resonant Wavefront-Shaping Meta-Optics. , 2021, , .		0
3	The evolution of red color vision is linked to coordinated rhodopsin tuning in lycaenid butterflies. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	30
4	Chiral Quasi-Bound States in the Continuum. Physical Review Letters, 2021, 126, 073001.	7.8	145
5	Scalable Aqueous Processing-Based Passive Daytime Radiative Cooling Coatings. Advanced Functional Materials, 2021, 31, 2010334.	14.9	74
6	Designing Mesoporous Photonic Structures for High-Performance Passive Daytime Radiative Cooling. Nano Letters, 2021, 21, 1412-1418.	9.1	106
7	Targeted Sub-Attomole Cancer Biomarker Detection Based on Phase Singularity 2D Nanomaterial-Enhanced Plasmonic Biosensor. Nano-Micro Letters, 2021, 13, 96.	27.0	30
8	Robust, efficient, micrometre-scale phase modulators at visible wavelengths. Nature Photonics, 2021, 15, 908-913.	31.4	53
9	Plasmonic Metasensors Based on 2D Hybrid Atomically Thin Perovskite Nanomaterials. Nanomaterials, 2020, 10, 1289.	4.1	18
10	Selection rules for quasibound states in the continuum. Physical Review B, 2020, 102, .	3.2	129
11	Paints as a Scalable and Effective Radiative Cooling Technology for Buildings. Joule, 2020, 4, 1350-1356.	24.0	257
12	Design and experiment of a sun-powered smart building envelope with automatic control. Energy and Buildings, 2020, 223, 110173.	6.7	19
13	Multifunctional Nonlocal Metasurfaces. Physical Review Letters, 2020, 125, 017402.	7.8	109
14	Physical and behavioral adaptations to prevent overheating of the living wings of butterflies. Nature Communications, 2020, 11, 551.	12.8	95
15	Colored and paintable bilayer coatings with high solar-infrared reflectance for efficient cooling. Science Advances, 2020, 6, eaaz5413.	10.3	148
16	Planar nonlinear metasurface optics and their applications. Reports on Progress in Physics, 2020, 83, 126101.	20.1	22
17	Enhanced harmonic generation in gases using an all-dielectric metasurface. Nanophotonics, 2020, 10, 733-740.	6.0	11
18	Active nonlocal metasurfaces. Nanophotonics, 2020, 10, 655-665.	6.0	40

#	ARTICLE	IF	CITATIONS
19	Robust Miniature Pure-Phase Modulators at $k = 488$ nm. , 2020, , .		1
20	A Scalable Dealloying Technique To Create Thermally Stable Plasmonic Nickel Selective Solar Absorbers. ACS Applied Energy Materials, 2019, 2, 6551-6557.	5.1	30
21	Dielectric metasurfaces for complete and independent control of the optical amplitude and phase. Light: Science and Applications, 2019, 8, 92.	16.6	278
22	Porous Polymers with Switchable Optical Transmittance for Optical and Thermal Regulation. Joule, 2019, 3, 3088-3099.	24.0	175
23	Hybrid Metasurface-Based Mid-Infrared Biosensor for Simultaneous Quantification and Identification of Monolayer Protein. ACS Photonics, 2019, 6, 501-509.	6.6	47
24	Free-Space Modulators Based on Dimerized High Contrast Gratings. , 2019, , .		1
25	Structured Polymers for High-Performance Passive Daytime Radiative Cooling. , 2019, , .		0
26	Enhancement of harmonic generation in gases using an all-dielectric metasurface. , 2019, , .		0
27	Symmetry-Broken High Contrast Gratings. , 2019, , .		1
28	Micron-scale, Efficient, Robust Phase Modulators in the Visible. , 2019, , .		2
29	Perovskite nickelates as electric-field sensors in salt water. Nature, 2018, 553, 68-72.	27.8	146
30	Broadband achromatic dielectric metalenses. Light: Science and Applications, 2018, 7, 85.	16.6	449
31	Hierarchically porous polymer coatings for highly efficient passive daytime radiative cooling. Science, 2018, 362, 315-319.	12.6	1,120
32	Optical conductivity-based ultrasensitive mid-infrared biosensing on a hybrid metasurface. Light: Science and Applications, 2018, 7, 67.	16.6	98
33	$\text{Li}_4\text{Ti}_5\text{O}_{12}$ : A Visible- to Infrared Broadband Electrochromic Material for Optical and Thermal Management. Advanced Functional Materials, 2018, 28, 1802180.	14.9	123
34	Nanostructured fibers as a versatile photonic platform: radiative cooling and waveguiding through transverse Anderson localization. Light: Science and Applications, 2018, 7, 37.	16.6	60
35	Indium Tin Oxide Broadband Metasurface Absorber. ACS Photonics, 2018, 5, 3526-3533.	6.6	78
36	Dimerized high contrast gratings. Nanophotonics, 2018, 7, 1157-1168.	6.0	93

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37	Controlling propagation and coupling of waveguide modes using phase-gradient metasurfaces. Nature Nanotechnology, 2017, 12, 675-683.	31.5	323
38	Selective Solar Absorbers: Scalable, Dipole-Dry-Fabrication of a Wide-Angle Plasmonic Selective Absorber for High-Efficiency Solar Thermal Energy Conversion (Adv. Mater. 41/2017). Advanced Materials, 2017, 29, .	21.0	2
39	Scalable, Dipole-Dry-Fabrication of a Wide-Angle Plasmonic Selective Absorber for High-Efficiency Solar Thermal Energy Conversion. Advanced Materials, 2017, 29, 1702156.	21.0	119
40	Tunable mid-infrared biosensors based on graphene metasurfaces. , 2017, , .		0
41	Metasurface-assisted phase-matching-free second harmonic generation in lithium niobate waveguides. Nature Communications, 2017, 8, 2098.	12.8	137
42	Tunability of indium tin oxide materials for mid-infrared plasmonics applications. Optical Materials Express, 2017, 7, 2727.	3.0	74
43	Variable Emissivity Coatings Based on Plasmonic Metasurfaces Integrated with Phase-Transition Materials. , 2017, , .		1
44	Active metasurface devices based on correlated perovskites. , 2016, , .		0
45	High efficiency near diffraction-limited mid-infrared flat lenses based on metasurface reflectarrays. Optics Express, 2016, 24, 18024.	3.4	114
46	Correlated Perovskites as a New Platform for Super-Broadband-Tunable Photonics. Advanced Materials, 2016, 28, 9117-9125.	21.0	72
47	A review of metasurfaces: physics and applications. Reports on Progress in Physics, 2016, 79, 076401.	20.1	1,524
48	Optical Metasurfaces and Prospect of Their Applications Including Fiber Optics. Journal of Lightwave Technology, 2015, 33, 2344-2358.	4.6	102
49	Keeping cool: Enhanced optical reflection and radiative heat dissipation in Saharan silver ants. Science, 2015, 349, 298-301.	12.6	473
50	Flat optics with designer metasurfaces. Nature Materials, 2014, 13, 139-150.	27.5	4,358
51	Flat Optics: Controlling Wavefronts With Optical Antenna Metasurfaces. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 4700423-4700423.	2.9	258
52	Broad Electrical Tuning of Graphene-Loaded Plasmonic Antennas. Nano Letters, 2013, 13, 1257-1264.	9.1	558
53	Modulation of mid-infrared light using graphene-metal plasmonic antennas. Applied Physics Letters, 2013, 102, .	3.3	144
54	High-power low-divergence tapered quantum cascade lasers with plasmonic collimators. Applied Physics Letters, 2013, 102, .	3.3	14

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55	Modeling nanoscale V-shaped antennas for the design of optical phased arrays. <i>Physical Review B</i> , 2012, 85, .	3.2	96
56	Aberration-Free Ultrathin Flat Lenses and Axicons at Telecom Wavelengths Based on Plasmonic Metasurfaces. <i>Nano Letters</i> , 2012, 12, 4932-4936.	9.1	1,528
57	Ultra-thin plasmonic optical vortex plate based on phase discontinuities. <i>Applied Physics Letters</i> , 2012, 100, .	3.3	451
58	Out-of-Plane Reflection and Refraction of Light by Anisotropic Optical Antenna Metasurfaces with Phase Discontinuities. <i>Nano Letters</i> , 2012, 12, 1702-1706.	9.1	506
59	A Broadband, Background-Free Quarter-Wave Plate Based on Plasmonic Metasurfaces. <i>Nano Letters</i> , 2012, 12, 6328-6333.	9.1	1,065
60	Self-Synchronization of Laser Modes and Multistability in Quantum Cascade Lasers. <i>Physical Review Letters</i> , 2011, 106, 133902.	7.8	13
61	Nonlinear optical interactions of laser modes in quantum cascade lasers. <i>Journal of Modern Optics</i> , 2011, 58, 727-742.	1.3	12
62	Spoof plasmon analogue of metal-insulator-metal waveguides. <i>Optics Express</i> , 2011, 19, 14860.	3.4	145
63	Effect of radiation damping on the spectral response of plasmonic components. <i>Optics Express</i> , 2011, 19, 21748.	3.4	129
64	Multi-wavelength mid-infrared plasmonic antennas with single nanoscale focal point. <i>Optics Express</i> , 2011, 19, 22113.	3.4	29
65	Light Propagation with Phase Discontinuities: Generalized Laws of Reflection and Refraction. <i>Science</i> , 2011, 334, 333-337.	12.6	7,240
66	Designer spoof surface plasmon structures collimate terahertz laser beams. <i>Nature Materials</i> , 2010, 9, 730-735.	27.5	260
67	Nonlinear coupling of transverse modes in quantum cascade lasers. <i>Optical Engineering</i> , 2010, 49, 111114.	1.0	8
68	Whispering-gallery mode resonators for highly unidirectional laser action. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 22407-22412.	7.1	185
69	Nonlinear dynamics of coupled transverse modes in quantum cascade lasers. <i>Journal of Modern Optics</i> , 2010, 57, 1892-1899.	1.3	3
70	Gain competition in dual wavelength quantum cascade lasers. <i>Optics Express</i> , 2010, 18, 9900.	3.4	28
71	Wavefront engineering of semiconductor lasers using plasmonics. , 2010, , .		0
72	Coaxial silicon nanowires as solar cells and nanoelectronic power sources. , 2010, , 58-62.		1

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73	Directional emission and universal far-field behavior from semiconductor lasers with limaçon-shaped microcavity. Applied Physics Letters, 2009, 94, .	3.3	103
74	Semiconductor lasers with integrated plasmonic polarizers. Applied Physics Letters, 2009, 94, .	3.3	64
75	Coherent Coupling of Multiple Transverse Modes in Quantum Cascade Lasers. Physical Review Letters, 2009, 102, 013901.	7.8	50
76	Deformed microcavity quantum cascade lasers with directional emission. New Journal of Physics, 2009, 11, 125018.	2.9	33
77	Multi-beam multi-wavelength semiconductor lasers. Applied Physics Letters, 2009, 95, .	3.3	21
78	Small-divergence semiconductor lasers by plasmonic collimation. Nature Photonics, 2008, 2, 564-570.	31.4	216
79	Plasmonic Laser Antennas and Related Devices. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 1448-1461.	2.9	111
80	Small divergence edge-emitting semiconductor lasers with two-dimensional plasmonic collimators. Applied Physics Letters, 2008, 93, .	3.3	51
81	High-Performance Quantum Cascade Lasers Grown by Metal-Organic Vapor Phase Epitaxy and Their Applications to Trace Gas Sensing. Journal of Lightwave Technology, 2008, 26, 3534-3555.	4.6	46
82	Quantum cascade lasers with integrated plasmonic antenna-array collimators. Optics Express, 2008, 16, 19447.	3.4	54
83	Low divergence semiconductor lasers by plasmonic collimation. , 2008, , .		0
84	Coherent coupling of multiple transverse modes in a quantum cascade laser. , 2008, , .		0
85	Plasmonic quantum cascade laser antenna. Applied Physics Letters, 2007, 91, 173113.	3.3	70
86	Controlled modification of erbium lifetime in silicon dioxide with metallic overlayers. Applied Physics Letters, 2007, 91, 131103.	3.3	20
87	Controlled Modification of Erbium Lifetime in Silicon Dioxide Film with Chromium or Titanium Coatings. Materials Research Society Symposia Proceedings, 2007, 1055, 1.	0.1	0
88	Near-field imaging of quantum cascade laser transverse modes. Optics Express, 2007, 15, 13227.	3.4	41
89	Bowtie plasmonic quantum cascade laser antenna. Optics Express, 2007, 15, 13272.	3.4	146
90	Plasmonic quantum cascade laser antenna. , 2007, , .		0

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91	Coaxial silicon nanowires as solar cells and nanoelectronic power sources. Nature, 2007, 449, 885-889.	27.8	2,791