Nanfang Yu

List of Publications by Year in Descending Order

81 papers	19,327 citations	41 h-index	94 g-index
94 ext. papers	24,155 ext. citations	12 avg, IF	7.19 L-index

#	Paper	IF	Citations
81	Robust, efficient, micrometre-scale phase modulators at visible wavelengths. *Nature Photonics*, **2021**, 15, 908-913	33.9	9
80	Targeted Sub-Attomole Cancer Biomarker Detection Based on Phase Singularity 2D Nanomaterial-Enhanced Plasmonic Biosensor. *Nano-Micro Letters*, **2021**, 13, 96	19.5	12
79	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,	11.5	8
78	Chiral Quasi-Bound States in the Continuum. *Physical Review Letters*, **2021**, 126, 073001	7.4	36
77	Scalable Aqueous Processing-Based Passive Daytime Radiative Cooling Coatings. *Advanced Functional Materials*, **2021**, 31, 2010334	15.6	17
76	Designing Mesoporous Photonic Structures for High-Performance Passive Daytime Radiative Cooling. *Nano Letters*, **2021**, 21, 1412-1418	11.5	26
75	Paints as a Scalable and Effective Radiative Cooling Technology for Buildings. *Joule*, **2020**, 4, 1350-1356	27.8	88
74	Design and experiment of a sun-powered smart building envelope with automatic control. *Energy and Buildings*, **2020**, 223, 110173	7	8
73	Multifunctional Nonlocal Metasurfaces. *Physical Review Letters*, **2020**, 125, 017402	7.4	29
72	Physical and behavioral adaptations to prevent overheating of the living wings of butterflies. *Nature Communications*, **2020**, 11, 551	17.4	48
71	Colored and paintable bilayer coatings with high solar-infrared reflectance for efficient cooling. *Science Advances*, **2020**, 6, eaaz5413	14.3	62
70	Enhanced harmonic generation in gases using an all-dielectric metasurface. *Nanophotonics*, **2020**, 10, 733-740	6.3	4
69	Active nonlocal metasurfaces. *Nanophotonics*, **2020**, 10, 655-665	6.3	9
68	Robust Miniature Pure-Phase Modulators at k = 488 nm **2020**,		1
67	Planar nonlinear metasurface optics and their applications. *Reports on Progress in Physics*, **2020**, 83, 126101	14.4	4
66	Plasmonic Metasensors Based on 2D Hybrid Atomically Thin Perovskite Nanomaterials. *Nanomaterials*, **2020**, 10,	5.4	5
65	Selection rules for quasibound states in the continuum. *Physical Review B*, **2020**, 102,	3.3	38

64	Hybrid Metasurface-Based Mid-Infrared Biosensor for Simultaneous Quantification and Identification of Monolayer Protein. *ACS Photonics*, **2019**, 6, 501-509	6.3	34
63	A Scalable Dealloying Technique To Create Thermally Stable Plasmonic Nickel Selective Solar Absorbers. *ACS Applied Energy Materials*, **2019**, 2, 6551-6557	6.1	18
62	Dielectric metasurfaces for complete and independent control of the optical amplitude and phase. *Light: Science and Applications*, **2019**, 8, 92	16.7	144
61	Porous Polymers with Switchable Optical Transmittance for Optical and Thermal Regulation. *Joule*, **2019**, 3, 3088-3099	27.8	79
60	Free-Space Modulators Based on Dimerized High Contrast Gratings **2019**,		1
59	Micron-scale, Efficient, Robust Phase Modulators in the Visible **2019**,		2
58	Perovskite nickelates as electric-field sensors in salt water. *Nature*, **2018**, 553, 68-72	50.4	91
57	Li4Ti5O12: A Visible-to-Infrared Broadband Electrochromic Material for Optical and Thermal Management. *Advanced Functional Materials*, **2018**, 28, 1802180	15.6	74
56	Nanostructured fibers as a versatile photonic platform: radiative cooling and waveguiding through transverse Anderson localization. *Light: Science and Applications*, **2018**, 7, 37	16.7	31
55	Indium Tin Oxide Broadband Metasurface Absorber. *ACS Photonics*, **2018**, 5, 3526-3533	6.3	50
54	Dimerized high contrast gratings. *Nanophotonics*, **2018**, 7, 1157-1168	6.3	33
53	Broadband achromatic dielectric metalenses. *Light: Science and Applications*, **2018**, 7, 85	16.7	229
52	Hierarchically porous polymer coatings for highly efficient passive daytime radiative cooling. *Science*, **2018**, 362, 315-319	33.3	541
51	Optical conductivity-based ultrasensitive mid-infrared biosensing on a hybrid metasurface. *Light: Science and Applications*, **2018**, 7, 67	16.7	72
50	Controlling propagation and coupling of waveguide modes using phase-gradient metasurfaces. *Nature Nanotechnology*, **2017**, 12, 675-683	28.7	207
49	Selective Solar Absorbers: Scalable, Dip-and-Dry Fabrication of a Wide-Angle Plasmonic Selective Absorber for High-Efficiency Solar Thermal Energy Conversion (Adv. Mater. 41/2017). *Advanced Materials*, **2017**, 29,	24	1
48	Scalable, "Dip-and-Dry" Fabrication of a Wide-Angle Plasmonic Selective Absorber for High-Efficiency Solar-Thermal Energy Conversion. *Advanced Materials*, **2017**, 29, 1702156	24	71
47	Metasurface-assisted phase-matching-free second harmonic generation in lithium niobate waveguides. *Nature Communications*, **2017**, 8, 2098	17.4	84

46	Tunability of indium tin oxide materials for mid-infrared plasmonics applications. *Optical Materials Express*, **2017**, 7, 2727	2.6	56
45	Correlated Perovskites as a New Platform for Super-Broadband-Tunable Photonics. *Advanced Materials*, **2016**, 28, 9117-9125	24	55
44	A review of metasurfaces: physics and applications. *Reports on Progress in Physics*, **2016**, 79, 076401	14.4	931
43	High efficiency near diffraction-limited mid-infrared flat lenses based on metasurface reflectarrays. *Optics Express*, **2016**, 24, 18024-34	3.3	90
42	. *Journal of Lightwave Technology*, **2015**, 33, 2344-2358	4	77
41	Thermal physiology. Keeping cool: Enhanced optical reflection and radiative heat dissipation in Saharan silver ants. *Science*, **2015**, 349, 298-301	33.3	275
40	Flat optics with designer metasurfaces. *Nature Materials*, **2014**, 13, 139-50	27	3095
39	. *IEEE Journal of Selected Topics in Quantum Electronics*, **2013**, 19, 4700423-4700423	3.8	201
38	Broad electrical tuning of graphene-loaded plasmonic antennas. *Nano Letters*, **2013**, 13, 1257-64	11.5	458
37	Modulation of mid-infrared light using graphene-metal plasmonic antennas. *Applied Physics Letters*, **2013**, 102, 131108	3.4	124
36	High-power low-divergence tapered quantum cascade lasers with plasmonic collimators. *Applied Physics Letters*, **2013**, 102, 191114	3.4	13
35	Controlling Light Propagation with Interfacial Phase Discontinuities **2013**, 171-217		
34	Modeling nanoscale V-shaped antennas for the design of optical phased arrays. *Physical Review B*, **2012**, 85,	3.3	81
33	Aberration-free ultrathin flat lenses and axicons at telecom wavelengths based on plasmonic metasurfaces. *Nano Letters*, **2012**, 12, 4932-6	11.5	1177
32	Ultra-thin plasmonic optical vortex plate based on phase discontinuities. *Applied Physics Letters*, **2012**, 100, 013101	3.4	384
31	Out-of-plane reflection and refraction of light by anisotropic optical antenna metasurfaces with phase discontinuities. *Nano Letters*, **2012**, 12, 1702-6	11.5	388
30	A broadband, background-free quarter-wave plate based on plasmonic metasurfaces. *Nano Letters*, **2012**, 12, 6328-33	11.5	839
29	Self-synchronization of laser modes and multistability in quantum cascade lasers. *Physical Review Letters*, **2011**, 106, 133902	7.4	10

28	Nonlinear optical interactions of laser modes in quantum cascade lasers. *Journal of Modern Optics*, **2011**, 58, 727-742	1.1	11
27	Spoof plasmon analogue of metal-insulator-metal waveguides. *Optics Express*, **2011**, 19, 14860-70	3.3	96
26	Effect of radiation damping on the spectral response of plasmonic components. *Optics Express*, **2011**, 19, 21748-53	3.3	102
25	Multi-wavelength mid-infrared plasmonic antennas with single nanoscale focal point. *Optics Express* , **2011**, 19, 22113-24	3.3	27
24	Light propagation with phase discontinuities: generalized laws of reflection and refraction. *Science*, **2011**, 334, 333-7	33.3	4912
23	Designer spoof surface plasmon structures collimate terahertz laser beams. *Nature Materials*, **2010**, 9, 730-5	27	212
22	Nonlinear coupling of transverse modes in quantum cascade lasers. *Optical Engineering*, **2010**, 49, 111114	1.1	7
21	Whispering-gallery mode resonators for highly unidirectional laser action. *Proceedings of the National Academy of Sciences of the United States of America*, **2010**, 107, 22407-12	11.5	151
20	Nonlinear dynamics of coupled transverse modes in quantum cascade lasers. *Journal of Modern Optics*, **2010**, 57, 1892-1899	1.1	3
19	Gain competition in dual wavelength quantum cascade lasers. *Optics Express*, **2010**, 18, 9900-8	3.3	20
18	Coaxial silicon nanowires as solar cells and nanoelectronic power sources **2010**, 58-62		1
17	Directional emission and universal far-field behavior from semiconductor lasers with limaçon-shaped microcavity. *Applied Physics Letters*, **2009**, 94, 251101	3.4	81
16	Semiconductor lasers with integrated plasmonic polarizers. *Applied Physics Letters*, **2009**, 94, 151101	3.4	52
15	Coherent coupling of multiple transverse modes in quantum cascade lasers. *Physical Review Letters*, **2009**, 102, 013901	7.4	40
14	Deformed microcavity quantum cascade lasers with directional emission. *New Journal of Physics*, **2009**, 11, 125018	2.9	23
13	Multi-beam multi-wavelength semiconductor lasers. *Applied Physics Letters*, **2009**, 95, 161108	3.4	19
12	Small-divergence semiconductor lasers by plasmonic collimation. *Nature Photonics*, **2008**, 2, 564-570	33.9	179
11	Plasmonic Laser Antennas and Related Devices. *IEEE Journal of Selected Topics in Quantum Electronics*, **2008**, 14, 1448-1461	3.8	93

10	Small divergence edge-emitting semiconductor lasers with two-dimensional plasmonic collimators. *Applied Physics Letters*, **2008**, 93, 181101	3.4	39
9	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	37
8	Quantum cascade lasers with integrated plasmonic antenna-array collimators. *Optics Express*, **2008**, 16, 19447-61	3.3	41
7	Coaxial silicon nanowires as solar cells and nanoelectronic power sources. *Nature*, **2007**, 449, 885-9	50.4	2531
6	Plasmonic quantum cascade laser antenna. *Applied Physics Letters*, **2007**, 91, 173113	3.4	53
5	Controlled modification of erbium lifetime in silicon dioxide with metallic overlayers. *Applied Physics Letters*, **2007**, 91, 131103	3.4	20
4	Controlled Modification of Erbium Lifetime in Silicon Dioxide Film with Chromium or Titanium Coatings. *Materials Research Society Symposia Proceedings*, **2007**, 1055, 1		
3	Near-field imaging of quantum cascade laser transverse modes. *Optics Express*, **2007**, 15, 13227-35	3.3	34
2	Bowtie plasmonic quantum cascade laser antenna. *Optics Express*, **2007**, 15, 13272-81	3.3	121
1	The evolution of red colour vision is linked to coordinated rhodopsin tuning in lycaenid butterflies		2