Thomas Folland

List of Publications by Year
in descending order

48 papers	1,183 citations	471509 17 h-index	377865 34 g-index
50 all docs	50 docs citations	50 times ranked	1179 citing authors

#	Article	IF	Citations
1	Reconfigurable infrared hyperbolic metasurfaces using phase change materials. Nature Communications, 2018, 9, 4371.	12.8	148
2	Infrared Permittivity of the Biaxial van der Waals Semiconductor Î±â€MoO₃ from Nearâ€•and Farâ€Field Correlative Studies. Advanced Materials, 2020, 32, e1908176.	21.0	99
3	Gain modulation by graphene plasmons in aperiodic lattice lasers. Science, 2016, 351, 246-248.	12.6	95
4	Hyperbolic shear polaritons in low-symmetry crystals. Nature, 2022, 602, 595-600.	27.8	78
5	Strong Coupling of Epsilon-Near-Zero Phonon Polaritons in Polar Dielectric Heterostructures. Nano Letters, 2018, 18, 4285-4292.	9.1	71
6	Refractive Index-Based Control of Hyperbolic Phonon-Polariton Propagation. Nano Letters, 2019, 19, 7725-7734.	9.1	69
7	Polaritonic Hybrid-Epsilon-near-Zero Modes: Beating the Plasmonic Confinement vs Propagation-Length Trade-Off with Doped Cadmium Oxide Bilayers. Nano Letters, 2019, 19, 948-957.	9.1	61
8	Lithography-free IR polarization converters via orthogonal in-plane phonons in Î±-MoO3 flakes. Nature Communications, 2020, 11, 5771.	12.8	54
9	Probing polaritons in the mid- to far-infrared. Journal of Applied Physics, 2019, 125, .	2.5	48
10	Deterministic inverse design of Tamm plasmon thermal emitters with multi-resonant control. Nature Materials, 2021, 20, 1663-1669.	27.5	46
11	Engineering the Spectral and Spatial Dispersion of Thermal Emission via Polaritonâ€“Phonon Strong Coupling. Nano Letters, 2021, 21, 1831-1838.	9.1	44
12	Vibrational Coupling to Epsilon-Near-Zero Waveguide Modes. ACS Photonics, 2020, 7, 614-621.	6.6	35
13	Narrowband Polaritonic Thermal Emitters Driven by Waste Heat. ACS Omega, 2020, 5, 10900-10908.	3.5	34
14	Precise control of infrared polarization using crystal vibrations. Nature, 2018, 562, 499-501.	27.8	24
15	Filterless Nondispersive Infrared Sensing using Narrowband Infrared Emitting Metamaterials. ACS Photonics, 2021, 8, 472-480.	6.6	20
16	Guided Midâ€IR and Nearâ€IR Light within a Hybrid Hyperbolicâ€Material/Silicon Waveguide Heterostructure. Advanced Materials, 2021, 33, e2004305.	21.0	20
17	Van der Waals Phonon Polariton Microstructures for Configurable Infrared Electromagnetic Field Localizations. Advanced Science, 2021, 8, 2004872.	11.2	20
18	Surface phonon polaritons for infrared optoelectronics. Journal of Applied Physics, 2022, 131, .	2.5	18

#	Article	IF	Citations
19	Anisotropy and Modal Hybridization in Infrared Nanophotonics Using Low-Symmetry Materials. ACS Photonics, 2022, 9, 1078-1095.	6.6	18
20	Probing hyperbolic polaritons using infrared attenuated total reflectance micro-spectroscopy. MRS Communications, 2018, 8, 1418-1425.	1.8	17
21	Ultrahigh-Resolution, Label-Free Hyperlens Imaging in the Mid-IR. Nano Letters, 2021, 21, 7921-7928.	9.1	17
22	Nanoscale Spectroscopy of Dielectric Properties of Mica. ACS Photonics, 2021, 8, 175-181.	6.6	16
23	Experimental confirmation of long hyperbolic polariton lifetimes in monoisotopic (10B) hexagonal boron nitride at room temperature. APL Materials, 2021, 9, .	5.1	16
24	Ultraviolet to far-infrared dielectric function of <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>n</mml:mi></mml:mrow></mml:math -doped cadmium oxide thin films. Physical Review Materials, 2020, 4, .	2.4	16
25	Towards low- loss on-chip nanophotonics with coupled graphene and silicon carbide: a review. JPhys Materials, 2020, 3, 032005.	4.2	15
26	High-Q dark hyperbolic phonon-polaritons in hexagonal boron nitride nanostructures. Nanophotonics, 2020, 9, 1457-1467.	6.0	13
27	Microtubules regulate pancreatic Î²-cell heterogeneity via spatiotemporal control of insulin secretion hot spots. ELife, 2021, 10, .	6.0	11
28	Electronically tunable aperiodic distributed feedback terahertz lasers. Journal of Applied Physics, 2013, 113, .	2.5	8
29	Phonon engineering of boron nitride via isotopic enrichment. Journal of Materials Research, 2021, 36, 4394-4403.	2.6	8
30	Multi-frequency coherent emission from superstructure thermal emitters. Applied Physics Letters, 2021, 118, .	3.3	7
31	Enhanced Absorption with Graphene-Coated Silicon Carbide Nanowires for Mid-Infrared Nanophotonics. Nanomaterials, 2021, 11, 2339.	4.1	7
32	Collective Phononâ€“Polaritonic Modes in Silicon Carbide Subarrays. ACS Nano, 2022, 16, 963-973.	14.6	6
33	Van der Waals Semiconductors: Infrared Permittivity of the Biaxial van der Waals Semiconductor Î±â€MoO₃ from Nearâ€and Farâ€Field Correlative Studies (Adv. Mater. 29/2020). Advanced Materials, 2020, 32, 2070220.	21.0	5
34	Implementation of plasmonic band structure to understand polariton hybridization within metamaterials. Optics Express, 2018, 26, 29363.	3.4	4
35	Threshold gain in aperiodic lattice lasers. Optics Express, 2016, 24, 30024.	3.4	3
36	Dual-Frequency Defect-Mode Lasing in Aperiodic Distributed Feedback Cavities. IEEE Photonics Technology Letters, 2016, 28, 1617-1620.	2.5	3

#	Article	IF	Citations
37	Coherent detection of THz laser signals in optical fiber systems. Optics Express, 2017, 25, 25566.	3.4	2
38	Time-resolved THz Laser spectra using a Fiber-interfaced Optical Heterodyne system. , 2015, , .		1
39	Optical side-band generation in THz Fabry-Perot laser cavities. Applied Physics Letters, 2017, 111, .	3.3	1
40	Chapter 12 Semiconductor Nanophotonics Using Surface Polaritons. NATO Science for Peace and Security Series B: Physics and Biophysics, 2018, , 235-254.	0.3	1
41	Understanding and supporting the needs of early-career materials scientists. MRS Bulletin, 2020, 45, 969-971.	3.5	1
42	High-accuracy heterodyne detection of THz radiation exploiting telecommunication technologies. , 2015, , .		0
43	Ultralow Loss Polaritons in Isotopically Pure Hexagonal Boron Nitride. , 2019, , .		0
44	Hybrid Waveguides: Guided Midâ€IR and Nearâ€IR Light within a Hybrid Hyperbolicâ€Material/Silicon Waveguide Heterostructure (Adv. Mater. 11/2021). Advanced Materials, 2021, 33, 2170079.	21.0	0
45	Electronic switching mechanism in Aperiodic DFB Lasers. , 2014, , .		0
46	Gain Control using Graphene Plasmons in Aperiodic DFB lasers. , 2016, , .		0
47	Graphene Plasmon-modified THz Laser Waveguides. , 2016, , .		0
48	Interactions of Hexagonal Boron Nitride with the Insulator-Metal Phase Transition of Vanadium Dioxide. , 2018, , .		0