

Fritz Keilmann

List of Publications by Year in descending order

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Version: 2024-02-01

33
papers

8,241
citations

201575

27
h-index

434063

31
g-index

33
all docs

33
docs citations

33
times ranked

7214
citing authors

#	ARTICLE	IF	CITATIONS
1	Gate-tuning of graphene plasmons revealed by infrared nano-imaging. <i>Nature</i> , 2012, 487, 82-85.	13.7	1,780
2	Tunable Phonon Polaritons in Atomically Thin van der Waals Crystals of Boron Nitride. <i>Science</i> , 2014, 343, 1125-1129.	6.0	957
3	Near-field probing of vibrational absorption for chemical microscopy. <i>Nature</i> , 1999, 399, 134-137.	13.7	850
4	Graphene on hexagonal boron nitride as a tunable hyperbolic metamaterial. <i>Nature Nanotechnology</i> , 2015, 10, 682-686.	15.6	526
5	Infrared Nanoscopy of Dirac Plasmons at the Graphene/SiO ₂ Interface. <i>Nano Letters</i> , 2011, 11, 4701-4705.	4.5	500
6	Terahertz Near-Field Nanoscopy of Mobile Carriers in Single Semiconductor Nanodevices. <i>Nano Letters</i> , 2008, 8, 3766-3770.	4.5	483
7	Nano-FTIR Absorption Spectroscopy of Molecular Fingerprints at 20Ånm Spatial Resolution. <i>Nano Letters</i> , 2012, 12, 3973-3978.	4.5	477
8	Complex Optical Constants on a Subwavelength Scale. <i>Physical Review Letters</i> , 2000, 85, 3029-3032.	2.9	396
9	Subdiffractional focusing and guiding of polaritonic rays in a natural hyperbolic material. <i>Nature Communications</i> , 2015, 6, 6963.	5.8	340
10	Ultrafast optical switching of infrared plasmon polaritons in high-mobility graphene. <i>Nature Photonics</i> , 2016, 10, 244-247.	15.6	312
11	Ultrafast and Nanoscale Plasmonic Phenomena in Exfoliated Graphene Revealed by Infrared Pump-Probe Nanoscopy. <i>Nano Letters</i> , 2014, 14, 894-900.	4.5	158
12	Nanoscale-resolved subsurface imaging by scattering-type near-field optical microscopy. <i>Optics Express</i> , 2005, 13, 8893.	1.7	145
13	Plasmons in graphene moiré superlattices. <i>Nature Materials</i> , 2015, 14, 1217-1222.	13.3	141
14	Spectroscopic THz near-field microscope. <i>Optics Express</i> , 2008, 16, 3430.	1.7	126
15	Broadband-infrared assessment of phonon resonance in scattering-type near-field microscopy. <i>Physical Review B</i> , 2011, 83, .	1.1	117
16	Mid-infrared near-field spectroscopy. <i>Optics Express</i> , 2009, 17, 21794.	1.7	93
17	Ultrafast Dynamics of Surface Plasmons in InAs by Time-Resolved Infrared Nanospectroscopy. <i>Nano Letters</i> , 2014, 14, 4529-4534.	4.5	92
18	Mid-infrared Frequency Comb Spanning an Octave Based on an Er Fiber Laser and Difference-Frequency Generation. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2012, 33, 479-484.	1.2	88

#	ARTICLE	IF	CITATIONS
19	Infrared conductivity mapping for nanoelectronics. <i>Applied Physics Letters</i> , 2000, 77, 3980-3982.	1.5	83
20	Efficiency of Launching Highly Confined Polaritons by Infrared Light Incident on a Hyperbolic Material. <i>Nano Letters</i> , 2017, 17, 5285-5290.	4.5	79
21	Graphene-Based Platform for Infrared Near-Field Nanospectroscopy of Water and Biological Materials in an Aqueous Environment. <i>ACS Nano</i> , 2015, 9, 7968-7975.	7.3	75
22	Extreme sub-wavelength resolution with a scanning radio-frequency transmission microscope. <i>Optics Communications</i> , 1996, 129, 15-18.	1.0	71
23	Phase-resolved terahertz self-detection near-field microscopy. <i>Optics Express</i> , 2018, 26, 18423.	1.7	70
24	All-electronic terahertz nanoscopy. <i>Optica</i> , 2018, 5, 159.	4.8	70
25	Nanoscale infrared spectroscopy as a non-destructive probe of extraterrestrial samples. <i>Nature Communications</i> , 2014, 5, 5445.	5.8	52
26	Antenna-mediated back-scattering efficiency in infrared near-field microscopy. <i>Optics Express</i> , 2008, 16, 11203.	1.7	42
27	Artifact free time resolved near-field spectroscopy. <i>Optics Express</i> , 2017, 25, 28589.	1.7	30
28	Anisotropic Strain-Induced Soliton Movement Changes Stacking Order and Band Structure of Graphene Multilayers: Implications for Charge Transport. <i>ACS Applied Nano Materials</i> , 2019, 2, 6067-6075.	2.4	24
29	Near-field infrared nanospectroscopy of surface phonon-polariton resonances. <i>Physical Review Research</i> , 2020, 2, .	1.3	24
30	Infrared-spectroscopic, dynamic near-field microscopy of living cells and nanoparticles in water. <i>Scientific Reports</i> , 2021, 11, 21860.	1.6	24
31	Conformation in Ultrathin Polymer Brush Coatings Resolved by Infrared Nanoscopy. <i>Analytical Chemistry</i> , 2020, 92, 4716-4720.	3.2	16
32	Hyperbolic phonon polaritons in hexagonal boron nitride (Conference Presentation). , 2016, , .		0
33	All-Electronic THz Nanoscopy. , 2018, , .		0