A Yu Nikitin

List of Publications by Year
in descending order

90	7,008	57758	58581
papers	citations	44 h-index	82 g-index

93	93	93	5375
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	In-plane anisotropic and ultra-low-loss polaritons in a natural van der Waals crystal. Nature, 2018, 562, 557-562.	27.8	506
2	Edge and waveguide terahertz surface plasmon modes in graphene microribbons. Physical Review B, 2011, 84, .	3.2	451
3	Surface plasmon enhanced absorption and suppressed transmission in periodic arrays of graphene ribbons. Physical Review B, 2012, 85, .	3.2	373
4	Infrared hyperbolic metasurface based on nanostructured van der Waals materials. Science, 2018, 359, 892-896.	12.6	344
5	Controlling graphene plasmons with resonant metal antennas and spatial conductivity patterns. Science, 2014, 344, 1369-1373.	12.6	292
6	Direct observation of ultraslow hyperbolic polariton propagation with negative phase velocity. Nature Photonics, 2015, 9, 674-678.	31.4	268
7	Acoustic terahertz graphene plasmons revealed by photocurrent nanoscopy. Nature Nanotechnology, 2017, 12, 31-35.	31.5	257
8	Boron nitride nanoresonators for phonon-enhanced molecular vibrational spectroscopy at the strong coupling limit. Light: Science and Applications, 2018, 7, 17172-17172.	16.6	257
9	Fields radiated by a nanoemitter in a graphene sheet. Physical Review B, 2011, 84, .	3.2	188
10	Real-space mapping of tailored sheet and edge plasmons in graphene nanoresonators. Nature Photonics, 2016, 10, 239-243.	31.4	167
11	Giant optical anisotropy in transition metal dichalcogenides for next-generation photonics. Nature Communications, 2021, 12, 854.	12.8	154
12	Matter manipulation with extreme terahertz light: Progress in the enabling THz technology. Physics Reports, 2019, 836-837, 1-74.	25.6	147
13	Fast and Sensitive Terahertz Detection Using an Antenna-Integrated Graphene pn Junction. Nano Letters, 2019, 19, 2765-2773.	9.1	144
14	Resonant plasmonic effects in periodic graphene antidot arrays. Applied Physics Letters, 2012, 101, .	3.3	137
15	Broad spectral tuning of ultra-low-loss polaritons in a van der Waals crystal by intercalation. Nature Materials, 2020, 19, 964-968.	27.5	129
16	Twisted Nano-Optics: Manipulating Light at the Nanoscale with Twisted Phonon Polaritonic Slabs. Nano Letters, 2020, 20, 5323-5329.	9.1	126
17	Strong Plasmon Reflection at Nanometer-Size Gaps in Monolayer Graphene on SiC. Nano Letters, 2013, 13, 6210-6215.	9.1	121
18	Nanoimaging of resonating hyperbolic polaritons in linear boron nitride antennas. Nature Communications, 2017, 8, 15624.	12.8	121

#	Article	IF	Citations
19	Graphene supports the propagation of subwavelength optical solitons. Laser and Photonics Reviews, 2013, 7, L7.	8.7	117
20	Broadband optical properties of monolayer and bulk MoS2. Npj 2D Materials and Applications, 2020, 4, .	7.9	112
21	Probing low-energy hyperbolic polaritons in van der Waals crystals with an electron microscope. Nature Communications, 2017, 8, 95.	12.8	111
22	Optical Nanoimaging of Hyperbolic Surface Polaritons at the Edges of van der Waals Materials. Nano Letters, 2017, 17, 228-235.	9.1	107
23	Faraday Rotation Due to Excitation of Magnetoplasmons in Graphene Microribbons. ACS Nano, 2013, 7, 9780-9787.	14.6	106
24	Scattering of Graphene Plasmons by Defects in the Graphene Sheet. ACS Nano, 2013, 7, 4988-4994.	14.6	99
25	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
26	Anomalous reflection phase of graphene plasmons and its influence on resonators. Physical Review B, 2014, 90, .	3.2	97
27	Electrically controlled terahertz magneto-optical phenomena in continuous and patterned graphene. Nature Communications, 2017, 8, 14626.	12.8	93
28	Real-space observation of vibrational strong coupling between propagating phonon polaritons and organic molecules. Nature Photonics, 2021, 15, 197-202.	31.4	90
29	Terahertz Nanofocusing with Cantilevered Terahertz-Resonant Antenna Tips. Nano Letters, 2017, 17, 6526-6533.	9.1	84
30	Superradiance mediated by graphene surface plasmons. Physical Review B, 2012, 85, .	3.2	80
31	Efficient Coupling of Light to Graphene Plasmons by Compressing Surface Polaritons with Tapered Bulk Materials. Nano Letters, 2014, 14, 2896-2901.	9.1	80
32	Surface Electromagnetic Field Radiated by a Subwavelength Hole in a Metal Film. Physical Review Letters, 2010, 105, 073902.	7.8	77
33	Resonantly suppressed transmission and anomalously enhanced light absorption in periodically modulated ultrathin metal films. Physical Review B, 2009, 79, .	3.2	70
34	Analytical approximations for the dispersion of electromagnetic modes in slabs of biaxial crystals. Physical Review B, 2019, 100, .	3.2	67
35	In the diffraction shadow: Norton waves versus surface plasmon polaritons in the optical region. New Journal of Physics, 2009, 11, 123020.	2.9	63
36	Extraordinary optical transmission through hole arrays in optically thin metal films. Optics Letters, 2009, 34, 4.	3.3	61

#	Article	IF	Citations
37	Plasmons in Cylindrical 2D Materials as a Platform for Nanophotonic Circuits. ACS Photonics, 2015, 2, 280-286.	6.6	58
38	Launching of hyperbolic phonon-polaritons in h-BN slabs by resonant metal plasmonic antennas. Nature Communications, 2019, 10, 3242.	12.8	56
39	Analytical solution for the diffraction of an electromagnetic wave by a graphene grating. Journal of Optics (United Kingdom), 2013, 15, 114008.	2.2	54
40	Scattering of surface plasmon polaritons by one-dimensional inhomogeneities. Physical Review B, 2007, 75, .	3.2	53
41	Nanoscaleâ€Confined Terahertz Polaritons in a van der Waals Crystal. Advanced Materials, 2021, 33, e2005777.	21.0	53
42	Enabling propagation of anisotropic polaritons along forbidden directions via a topological transition. Science Advances, 2021, 7, .	10.3	53
43	Deeply subwavelength phonon-polaritonic crystal made of a van der Waals material. Nature Communications, 2019, 10, 42.	12.8	51
44	Planar refraction and lensing of highly confined polaritons in anisotropic media. Nature Communications, 2021, 12, 4325.	12.8	48
45	Electromagnetic wave transmission through a small hole in a perfect electric conductor of finite thickness. Physical Review B, 2008, 78, .	3.2	46
46	Analytical Expressions for the Electromagnetic Dyadic Greenâ€™s Function in Graphene and Thin Layers. IEEE Journal of Selected Topics in Quantum Electronics, 2013, 19, 4600611-4600611.	2.9	44
47	Nanofocusing of Hyperbolic Phonon Polaritons in a Tapered Boron Nitride Slab. ACS Photonics, 2016, 3, 924-929.	6.6	44
48	Acoustic Graphene Plasmon Nanoresonators for Field-Enhanced Infrared Molecular Spectroscopy. ACS Photonics, 2017, 4, 3089-3097.	6.6	43
49	Active Tuning of Highly Anisotropic Phonon Polaritons in Van der Waals Crystal Slabs by Gated Graphene. ACS Photonics, 2022, 9, 383-390.	6.6	37
50	Focusing of in-plane hyperbolic polaritons in van der Waals crystals with tailored infrared nanoantennas. Science Advances, 2021, 7, eabj0127.	10.3	36
51	Stacking Structures of Few-Layer Graphene Revealed by Phase-Sensitive Infrared Nanoscopy. ACS Nano, 2015, 9, 6765-6773.	14.6	35
52	Extremely Confined Acoustic Phonon Polaritons in Monolayer-hBN/Metal Heterostructures for Strong Lightâ€“Matter Interactions. ACS Photonics, 2020, 7, 2610-2617.	6.6	33
53	Real-space nanoimaging of THz polaritons in the topological insulator Bi2Se3. Nature Communications, 2022, 13, 1374.	12.8	33
54	Observation of enhanced transmission for s-polarized light through a subwavelength slit. Optics Express, 2010, 18, 9722.	3.4	30

#	Article	IF	Citations
55	Graphene Plasmon Reflection by Corrugations. ACS Photonics, 2017, 4, 3081-3088.	6.6	30
56	Polarization properties of a periodically-modulated metal film in regions of anomalous optical transparency. Physical Review B, 2005, 72, .	3.2	29
57	Nanoscale Guiding of Infrared Light with Hyperbolic Volume and Surface Polaritons in van der Waals Material Ribbons. Advanced Materials, 2020, 32, e1906530.	21.0	29
58	Analytical treatment of anomalous transparency of a modulated metal film due to surface plasmon-polariton excitation. Physical Review B, 2004, 70, .	3.2	25
59	Excitation of surface Josephson plasma waves in layered superconductors. Physical Review B, 2007, 76, .	3.2	23
60	Enhanced optical transmission, beaming and focusing through a subwavelength slit under excitation of dielectric waveguide modes. Journal of Optics, 2009, 11, 125702.	1.5	21
61	Opening the light extraction cone of high index substrates with plasmonic gratings: Light emitting diode applications. Applied Physics Letters, 2009, 95, 021101.	3.3	19
62	Scattering of surface plasmon polaritons by impedance barriers: Dependence on angle of incidence. Physical Review B, 2008, 77, .	3.2	17
63	Excitation of surface plasmon-polaritons in metal films with double periodic modulation: Anomalous optical effects. Physical Review B, 2007, 76, .	3.2	16
64	Resonance effects due to the excitation of surface Josephson plasma waves in layered superconductors. Physical Review B, 2009, 79, .	3.2	16
65	Dyakonov surface wave resonant transmission. Optics Express, 2011, 19, 6339.	3.4	14
66	Hyperspectral Nanoimaging of van der Waals Polaritonic Crystals. Nano Letters, 2021, 21, 7109-7115.	9.1	13
67	Active and Passive Tuning of Ultranarrow Resonances in Polaritonic Nanoantennas. Advanced Materials, 2022, 34, e2104954.	21.0	13
68	Scattering coefficients of surface plasmon polaritons impinging at oblique incidence onto one-dimensional surface relief defects. Physical Review B, 2007, 75, .	3.2	12
69	Intercoupling of free-space radiation to s-polarized confined modes via nanocavities. Applied Physics Letters, 2009, 94, 063119.	3.3	12
70	Nanofocusing of acoustic graphene plasmon polaritons for enhancing mid-infrared molecular fingerprints. Nanophotonics, 2020, 9, 2089-2095.	6.0	12
71	Plasmons in graphene on uniaxial substrates. Applied Physics Letters, 2014, 104, 011111.	3.3	11
72	Bonding and Antibonding Modes in Metalâ€“Dielectricâ€“Metal Plasmonic Antennas for Dualâ€Band Applications. Advanced Optical Materials, 2020, 8, 1900942.	7.3	9

#	Article	IF	Citations
73	Nonzeroth-order anomalous optical transparency in modulated metal films owing to excitation of surface plasmon polaritons: An analytic approach. JETP Letters, 2004, 79, 625-631.	1.4	8
74	Polarization conversion spectroscopy of hybrid modes. Optics Letters, 2009, 34, 3911.	3.3	8
75	Controlling surface charge and spin density oscillations by Dirac plasmon interaction in thin topological insulators. Physical Review B, 2018, 97, .	3.2	8
76	Analytical investigation of the spectra of coupled polaritons on double periodic metal surfaces. , 2003, , .		7
77	Influence of the dielectric substrate on the field emitted by a subwavelength slit in a metal film. Physica Status Solidi - Rapid Research Letters, 2010, 4, 250-252.	2.4	7
78	Extracting the Infrared Permittivity of SiO2 Substrates Locally by Near-Field Imaging of Phonon Polaritons in a van der Waals Crystal. Nanomaterials, 2021, 11, 120.	4.1	7
79	Telecom meets terahertz. Nature Photonics, 2018, 12, 3-4.	31.4	6
80	Special issue on graphene nanophotonics. Journal of Optics (United Kingdom), 2013, 15, 110201.	2.2	5
81	Van der Waals Semiconductors: Infrared Permittivity of the Biaxial van der Waals Semiconductor Î±â€MoO‹sub›3‹/sub› from Nearâ€and Farâ€Field Correlative Studies (Adv. Mater. 29/2020). Advanced Materials, 2020, 32, 2070220.	21.0	5
82	Oblique launching of optical surface waves by a subwavelength slit. Physical Review B, 2011, 83, .	3.2	4
83	Graphene Plasmonics. World Scientific Series in Nanoscience and Nanotechnology, 2017, , 307-338.	0.1	4
84	Optical magnetic lens: towards actively tunable terahertz optics. Nanoscale, 2021, 13, 108-116.	5.6	4
85	‹title›An analytical study of 2D photonic structures‹/title›. , 2004, 5477, 381.		2
86	Interband plasmon polaritons in magnetized charge-neutral graphene. Communications Physics, 2021, 4, .	5.3	2
87	Giant Enhancement of Transmitted Light and Its Localization Due to Elastic Surface Plasmonâ€“Polariton Scattering by a Thin Dielectric Diffraction Grating. Plasmonics, 2014, 9, 219-226.	3.4	1
88	Enhanced transmission of s-polarized light through a metal slit. , 2010, , .		0
89	Addressing Vibrational Excitations in Van der Waals Materials and Molecular Layers Within Electron Energy Loss Spectroscopy. Microscopy and Microanalysis, 2018, 24, 408-409.	0.4	0
90	Photothermal twistronics. Nature Nanotechnology, 2021, 16, 489-490.	31.5	0