Dai-Sik Kim

List of Publications by Year
in descending order

96 papers	2,656 citations	257450 24 h-index	189892 50 g-index
97 all docs	97 docs citations	97 times ranked	2873 citing authors

#	Article	IF	Citations
1	Gaptronics: multilevel photonics applications spanning zero-nanometer limits. Nanophotonics, 2022, 11, 1231-1260.	6.0	9
2	Spatially Controlled Fabrication of Surface-Enhanced Raman Scattering Hot Spots through Photoinduced Dewetting of Silver Thin Films. Journal of Physical Chemistry Letters, 2022, 13, 2969-2975.	4.6	7
3	Effective terahertz shielding properties of extreme graphene-silver nanowire surfaces investigated by nanoprobing. IScience, 2022, 25, 104033.	4.1	4
4	Beyond-hot-spot absorption enhancement on top of terahertz nanotrenches. Nanophotonics, 2022, 11, 3159-3167.	6.0	5
5	Ultra-Narrow Metallic Nano-Trenches Realized by Wet Etching and Critical Point Drying. Nanomaterials, 2021, 11, 783.	4.1	6
6	A Transformative Metasurface Based on Zerogap Embedded Template. Advanced Optical Materials, 2021, 9, 2002164.	7.3	21
7	Topology-Changing Broadband Metamaterials Enabled by Closable Nanotrenches. Nano Letters, 2021, 21, 4202-4208.	9.1	24
8	Relaxation and Excitation Rate Modifications by Metal Nanostructures for Solar Energy Conversion Applications. Journal of Physical Chemistry C, 2021, 125, 8090-8097.	3.1	2
9	Augmented Allâ€Optical Active Terahertz Device Using Grapheneâ€Based Metasurface. Advanced Optical Materials, 2021, 9, 2100462.	7.3	9
10	Effective-zero-thickness terahertz slot antennas using stepped structures. Optics Express, 2021, 29, 21262.	3.4	1
11	Metallic nanotrenches for terahertz studies on nano-confined molecules. , 2021, , .		0
12	High sensitivity bolometers based on metal nanoantenna dimers with a nanogap filled with vanadium dioxide. Scientific Reports, 2021, 11, 15863.	3.3	3
13	Twofold Plasmonic Resonator Based on Polyethylene Terephthalate Thin Films for Terahertz Sensing Applications. ACS Applied Nano Materials, 2021, 4, 8753-8760.	5.0	6
14	Angstrom-Scale Active Width Control of Nano Slits for Variable Plasmonic Cavity. Nanomaterials, 2021, 11, 2463.	4.1	3
15	Topological Control of 2D Perovskite Emission in the Strong Coupling Regime. Nano Letters, 2021, 21, 10076-10085.	9.1	22
16	Fabrication of vertical van der Waals gap array using single-and multi-layer graphene. Nanotechnology, 2020, 31, 035304.	2.6	2
17	Dynamic Terahertz Plasmonics Enabled by Phaseâ€Change Materials. Advanced Optical Materials, 2020, 8, 1900548.	7.3	59
18	Copper-based etalon filter using antioxidant graphene layer. Nanotechnology, 2020, 31, 445206.	2.6	0

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19	Phonon-Polaritons in Lead Halide Perovskite Film Hybridized with THz Metamaterials. Nano Letters, 2020, 20, 6690-6696.	9.1	27
20	Terahertz quantum plasmonics at nanoscales and angstrom scales. Nanophotonics, 2020, 9, 435-451.	6.0	15
21	Colossal Terahertz Field Enhancement in Slant Nano-Antennas. , 2020, , .		0
22	Strongly Localized ohmic Absorption of Terahertz Radiation in Nanoslot Antennas. Nano Letters, 2019, 19, 9062-9068.	9.1	14
23	Terahertz field confinement and enhancement in various sub-wavelength structures. Journal of Applied Physics, 2019, 126, .	2.5	16
24	Rectangular plasmonic interferometer for high sensitive glycerol sensor. Scientific Reports, 2019, 9, 1378.	3.3	14
25	Efficient Control of THz Transmission of PEDOT:PSS with Resonant Nano-Metamaterials. Scientific Reports, 2019, 9, 17681.	3.3	2
26	Enhanced terahertz conductivity in ultra-thin gold film deposited onto (3-mercaptopropyl) trimethoxysilane (MPTMS)-coated Si substrates. Scientific Reports, 2019, 9, 15025.	3.3	4
27	Largeâ€Area Metal Gaps and Their Optical Applications. Advanced Optical Materials, 2019, 7, 1800426.	7.3	27
28	Active Thermal Control of 5 nm Gap Terahertz Antennas. Advanced Optical Materials, 2019, 7, 1800856.	7.3	7
29	Terahertz nanospectroscopy of surface carrier dynamics in metal-nanopatterned semiconductors. , 2019, , .		0
30	Anomalous extinction in index-matched terahertz nanogaps. Nanophotonics, 2018, 7, 347-354.	6.0	17
31	Highâ€Q Metallic Fano Metamaterial for Highly Efficient Cerenkov Lasing. Advanced Optical Materials, 2018, 6, 1800041.	7.3	16
32	Enhanced Terahertz Shielding of MXenes with Nanoâ€Metamaterials. Advanced Optical Materials, 2018, 6, 1701076.	7.3	157
33	Magnetic Nature of Light Transmission through a 5-nm Gap. Scientific Reports, 2018, 8, 2751.	3.3	6
34	Electromagnon with Sensitive Terahertz Magnetochromism in a Room-Temperature Magnetoelectric Hexaferrite. Physical Review Letters, 2018, 120, 027202.	7.8	19
35	Giant Field Enhancements in Ultrathin Nanoslots above 1 Terahertz. ACS Photonics, 2018, 5, 1885-1890.	6.6	21
36	Terahertz wave interaction with metallic nanostructures. Nanophotonics, 2018, 7, 763-793.	6.0	56

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37	Colossal Terahertz Field Enhancement Using Split-Ring Resonators with a Sub-10 nm Gap. ACS Photonics, 2018, 5, 278-283.	6.6	44
38	Terahertz rectification in ring-shaped quantum barriers. Nature Communications, 2018, 9, 4914.	12.8	19
39	Terahertz rectification in a triangular ring of quantum barriers. , 2018, , .		0
40	Tunneling Rectification in Ring Shaped Nanogaps. , 2018, , .		0
41	Active Thermal Control of 5 nm Gap Terahertz Antennas. , 2018, , .		1
42	Enhanced Surface Carrier Response by Field Overlapping in Metal Nanopatterned Semiconductor. ACS Photonics, 2018, 5, 4739-4744.	6.6	10
43	High Contrast Detection of Waterâ€Filled Terahertz Nanotrenches. Advanced Optical Materials, 2018, 6, 1800582.	7.3	16
44	Terahertz-driven polymerization of resists in nanoantennas. Scientific Reports, 2018, 8, 7762.	3.3	4
45	Control of optical nanometer gap shapes made via standard lithography using atomic layer deposition. Journal of Micro/ Nanolithography, MEMS, and MOEMS, 2018, 17, 1.	0.9	7
46	Cross sectional enhancements in terahertz nano antennas. , 2018, , .		0
47	Ultimate terahertz field enhancement of single nanoslits. Physical Review B, 2017, 95, .	3.2	40
48	Nonresonant 104 Terahertz Field Enhancement with 5-nm Slits. Scientific Reports, 2017, 7, 45638.	3.3	11
49	Terahertz Nanoprobing of Semiconductor Surface Dynamics. Nano Letters, 2017, 17, 6397-6401.	9.1	36
50	Broadband Surface Plasmon Lasing in One-dimensional Metallic Gratings on Semiconductor. Scientific Reports, 2017, 7, 7907.	3.3	17
51	Three-Dimensionally Coupled THz Octagrams as Isotropic Metamaterials. ACS Photonics, 2017, 4, 2436-2445.	6.6	6
52	Transmission characteristic of terahertz waves modulated by film thickness of nano-gaps. , 2017, , .		0
53	Semiconductor THz nanoscopy of subliminal surface dynamics. , 2017, , .		0
54	Light scattering of rectangular slot antennas: parallel magnetic vector vs perpendicular electric vector. Scientific Reports, 2016, 6, 18935.	3.3	18

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55	Terahertz funneling-induced quantum tunneling at angstrom scale. , 2016, , .		1
56	Tunnelling current-voltage characteristics of Angstrom gaps measured with terahertz time-domain spectroscopy. Scientific Reports, 2016, 6, 29103.	3.3	18
57	Sub-10â€‰nm feature chromium photomasks for contact lithography patterning of square metal ring arrays. Scientific Reports, 2016, 6, 23823.	3.3	15
58	Optical responses of a metal with sub-nm gaps. Scientific Reports, 2016, 6, 22981.	3.3	6
59	Terahertz field enhancement in asymmetric and tapered nano-gaps. Optics Express, 2016, 24, 2065.	3.4	12
60	Colossal Terahertz Nonlinearity in Angstrom- and Nanometer-Sized Gaps. ACS Photonics, 2016, 3, 1440-1445.	6.6	18
61	Terahertz transmission through rings of quantum dots-nanogap. Applied Physics Express, 2016, 9, 032001.	2.4	7
62	Microwave Funneling through Sub-10 nm Nanogaps. ACS Photonics, 2016, 3, 537-542.	6.6	14
63	Electromagnetic Saturation of Angstrom-Sized Quantum Barriers at Terahertz Frequencies. Physical Review Letters, 2015, 115, 125501.	7.8	60
64	Optical field enhancement of nanometer-sized gaps at near-infrared frequencies. Optics Express, 2015, 23, 4897.	3.4	29
65	Quantum dot nano gap metamaterial terahertz resonators. , 2015, , .		0
66	Colossal terahertz nonlinearity of angstrom-sized infinite gaps. , 2015, , .		0
67	Electromagnetic wave funneling through λ/10,000,000 nanogaps for microwave regime. , 2015, , .		0
68	Resonance tuning of electric field enhancement of nanogaps. Applied Physics Express, 2015, 8, 092003.	2.4	12
69	High-throughput fabrication of infinitely long 10 nm slit arrays for terahertz applications. Journal of Infrared, Millimeter, and Terahertz Waves, 2015, 36, 262-268.	2.2	26
70	Nanoscale Single-Element Color Filters. Nano Letters, 2015, 15, 5938-5943.	9.1	21
71	Ultrasensitive molecular absorption detection using metal slot antenna arrays. Optics Express, 2015, 23, 19047.	3.4	9
72	Terahertz Quantum Plasmonics of Nanoslot Antennas in Nonlinear Regime. Nano Letters, 2015, 15, 6683-6688.	9.1	63

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73	Quantum dots-nanogap metamaterials fabrication by self-assembly lithography and photoluminescence studies. Optics Express, 2015, 23, 14937.	3.4	13
74	Terahertz-Triggered Phase Transition and Hysteresis Narrowing in a Nanoantenna Patterned Vanadium Dioxide Film. Nano Letters, 2015, 15, 5893-5898.	9.1	58
75	Enhanced Second Harmonic Generation by Coupling to Exciton Ensembles in Ag-coated ZnO Nanorods. ACS Photonics, 2015, 2, 1314-1319.	6.6	24
76	A Vanadium Dioxide Metamaterial Disengaged from Insulator-to-Metal Transition. Nano Letters, 2015, 15, 6318-6323.	9.1	108
77	Huge field enhancement in microwave range achieved by λ/2000-width antennas. , 2014, , .		0
78	Colossal Absorption of Molecules Inside Single Terahertz Nanoantennas. Nano Letters, 2013, 13, 1782-1786.	9.1	178
79	Atomic layer lithography of wafer-scale nanogap arrays for extreme confinement of electromagnetic waves. Nature Communications, 2013, 4, 2361.	12.8	286
80	Large enhancement of nonlinear terahertz absorption in intrinsic GaAs by plasmonic nano antennas. Applied Physics Letters, 2013, 103, 171109.	3.3	30
81	Optical magnetic field mapping using a subwavelength aperture. Optics Express, 2013, 21, 5625.	3.4	48
82	Slot antenna as a bound charge oscillator. Optics Express, 2012, 20, 6521.	3.4	41
83	Selective enhanced resonances of two asymmetric terahertz nano resonators. Optics Express, 2012, 20, 25644.	3.4	16
84	Decline in male circumcision in South Korea. BMC Public Health, 2012, 12, 1067.	2.9	13
85	Surface plasmon-enhanced terahertz emission from single layer graphene. , 2012, , .		0
86	Electrical control of terahertz nano antennas on VO_2 thin film. Optics Express, 2011, 19, 21211.	3.4	102
87	Terahertz pinch harmonics enabled by single nano rods. Optics Express, 2011, 19, 24775.	3.4	20
88	High performance terahertz polarizer based on super-aligned carbon nanotube sheet. , 2011, , .		1
89	Controlling Terahertz Radiation with Nanoscale Metal Barriers Embedded in Nano Slot Antennas. ACS Nano, 2011, 5, 8340-8345.	14.6	66
90	Anomalous Band Formation in Arrays of Terahertz Nanoresonators. Physical Review Letters, 2011, 106, 013902.	7.8	32

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91	Giant nonlinear response of terahertz nanoresonators on VO_2 thin film. Optics Express, 2010, 18, 16452.	3.4	47
92	Active Terahertz Nanoantennas Based on VO₂ Phase Transition. Nano Letters, 2010, 10, 2064-2068.	9.1	331
93	Terahertz nanoresonators: Control and measurements. , 2009, , .		0
94	The effect of male circumcision on sexuality. BJU International, 2007, 99, 619-622.	2.5	101
95	Near-field photoreflectance spectroscopy of quantum well structures. Applied Physics Letters, 2001, 78, 2306-2308.	3.3	0
96	Perspective on future applications with lights concentrated in zero-nanometer gaps. Journal of the Korean Physical Society, 0, , 1.	0.7	0