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List of Publications by Year
in descending order

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Version: 2024-02-01

71 papers	3,572 citations	147801 31 h-index	197818 49 g-index
71 all docs	71 docs citations	71 times ranked	2535 citing authors

#	Article	IF	Citations
1	Triboelectric Sensors for IoT and Wearable Applications. , 2023, , 235-257.		6
2	Evolution of Wafer Bonding Technology and Applications from Wafer-Level Packaging to Micro/Nanofluidics-Enhanced Sensing. , 2022, , 187-215.		0
3	Subwavelength onâ€chip light focusing with bigradient allâ€dielectric metamaterials for dense photonic integration. InformaÄnÃ-MateriÃ¡ly, 2022, 4, .	17.3	19
4	Biometrics-protected optical communication enabled by deep learningâ€“enhanced triboelectric/photonic synergistic interface. Science Advances, 2022, 8, eabl9874.	10.3	42
5	MEMS-Enabled On-Chip Computational Mid-Infrared Spectrometer Using Silicon Photonics. ACS Photonics, 2022, 9, 2367-2377.	6.6	26
6	Larger-Than-Unity External Optical Field Confinement Enabled by Metamaterial-Assisted Comb Waveguide for Ultrasensitive Long-Wave Infrared Gas Spectroscopy. Nano Letters, 2022, 22, 6112-6120.	9.1	33
7	Wavelength-multiplexed hook nanoantennas for machine learning enabled mid-infrared spectroscopy. Nature Communications, 2022, 13, .	12.8	43
8	Technology evolution from self-powered sensors to AIoT enabled smart homes. Nano Energy, 2021, 79, 105414.	16.0	177
9	Electrochemically Exfoliated Platinum Dichalcogenide Atomic Layers for High-Performance Air-Stable Infrared Photodetectors. ACS Applied Materials & Interfaces, 2021, 13, 8518-8527.	8.0	23
10	Progress in micro/nano sensors and nanoenergy for future AIoT-based smart home applications. Nano Express, 2021, 2, 022005.	2.4	50
11	Suspended silicon waveguide platform with subwavelength grating metamaterial cladding for long-wave infrared sensing applications. Nanophotonics, 2021, 10, 1861-1870.	6.0	43
12	Mid-infrared semimetal polarization detectors with configurable polarity transition. Nature Photonics, 2021, 15, 614-621.	31.4	97
13	Zero-Bias Long-Wave Infrared Waveguide Photodetector via Graphene/Silicon/Halide Heterogeneous Integration. , 2021, , .		0
14	Heterogeneously Integrated Graphene/Silicon/Halide Waveguide Photodetectors toward Chip-Scale Zero-Bias Long-Wave Infrared Spectroscopic Sensing. ACS Nano, 2021, 15, 10084-10094.	14.6	40
15	Mid-Infrared Waveguide-Integrated Dielectric Metalens by Bigradient Slots on Silicon. , 2021, , .		1
16	Development of triboelectric-enabled tunable Fabry-PÃ©rot photonic-crystal-slab filter towards wearable mid-infrared computational spectrometer. Nano Energy, 2021, 89, 106446.	16.0	25
17	Artificial intelligence of toilet (AI-Toilet) for an integrated health monitoring system (IHMS) using smart triboelectric pressure sensors and image sensor. Nano Energy, 2021, 90, 106517.	16.0	74
18	Integrated Mid-Infrared Photonics Toward Chip-Scale Sensing Systems. , 2021, , .		0

#	Article	IF	Citations
19	Suspended Silicon Waveguide with Sub-Wavelength Grating Cladding for Optical MEMS in Mid-Infrared. Micromachines, 2021, 12, 1311.	2.9	8
20	Progress of optomechanical micro/nano sensors: a review. International Journal of Optomechatronics, 2021, 15, 120-159.	6.6	58
21	Leveraging of MEMS Technologies for Optical Metamaterials Applications. Advanced Optical Materials, 2020, 8, 1900653.	7.3	144
22	Development Trends and Perspectives of Future Sensors and MEMS/NEMS. Micromachines, 2020, 11, 7.	2.9	216
23	Progress in<scp>TENG</scp>technologyâ€"A journey from energy harvesting to nanoenergy and nanosystem. EcoMat, 2020, 2, e12058.	11.9	194
24	Progress in wearable electronics/photonicsâ€"Moving toward the era of artificial intelligence and internet of things. InformaÄ•nÃ-MateriÃ¡ly, 2020, 2, 1131-1162.	17.3	343
25	Deep learning-enabled triboelectric smart socks for IoT-based gait analysis and VR applications. Npj Flexible Electronics, 2020, 4, .	10.7	213
26	Nanometer-Scale Heterogeneous Interfacial Sapphire Wafer Bonding for Enabling Plasmonic-Enhanced Nanofluidic Mid-Infrared Spectroscopy. ACS Nano, 2020, 14, 12159-12172.	14.6	54
27	Zero-bias mid-infrared graphene photodetectors with bulk photoresponse and calibration-free polarization detection. Nature Communications, 2020, 11, 6404.	12.8	111
28	Highâ€Responsivity Midâ€Infrared Black Phosphorus Slow Light Waveguide Photodetector. Advanced Optical Materials, 2020, 8, 2000337.	7.3	75
29	Wearable Triboelectricâ€"Humanâ€"Machine Interface (THMI) Using Robust Nanophotonic Readout. ACS Nano, 2020, 14, 8915-8930.	14.6	121
30	Wearable Triboelectric/Aluminum Nitride Nanoâ€Energyâ€Nanoâ€System with Selfâ€Sustainable Photonic Modulation and Continuous Force Sensing. Advanced Science, 2020, 7, 1903636.	11.2	66
31	Recent progress in nanoplasmonics-based integrated optical micro/nano-systems. Journal Physics D: Applied Physics, 2020, 53, 213001.	2.8	41
32	Progress of infrared guided-wave nanophotonic sensors and devices. Nano Convergence, 2020, 7, 12.	12.1	79
33	Integration of MEMS IR detectors with MIR waveguides for sensing applications. Optics Express, 2020, 28, 11524.	3.4	32
34	Vernier effect-based tunable mid-infrared sensor using silicon-on-insulator cascaded rings. Optics Express, 2020, 28, 6251.	3.4	30
35	Demonstration of mid-infrared slow light one-dimensional photonic crystal ring resonator with high-order photonic bandgap. Optics Express, 2020, 28, 30736.	3.4	19
36	Multifunctional mid-infrared photonic switch using a MEMS-based tunable waveguide coupler. Optics Letters, 2020, 45, 5620.	3.3	21

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37	Mid-Infrared Aluminum Nitride on Insulator (AlNOI) Platform. , 2019, , .		1
38	Engineering and Tuning of Slow Light in Mid-Infrared Silicon-on-Insulator Photonic Crystal Waveguides. , 2019, , .		0
39	Dual Mode Mid-Infrared Chemical Sensor Using Bragg Wavelength in Subwavelength Grating Incorporated Broadband Directional Coupler. , 2019, , .		0
40	Surface-Enhanced Infrared Absorption-Based CO2 Sensor using Photonic Crystal Slab. , 2019, , .		2
41	Nanoplasmonics Enhanced Broadband Ultra-Sensitive Mid-Ir Sensor Array Integrated with Microfluidics. , 2019, , .		3
42	Self-powered multifunctional monitoring system using hybrid integrated triboelectric nanogenerators and piezoelectric microsensors. Nano Energy, 2019, 58, 612-623.	16.0	83
43	Coexistence of air and dielectric modes in single nanocavity. Optics Express, 2019, 27, 14085.	3.4	22
44	Characterization of Aluminum Nitride (AlN) Photonic Modulator as Function of High Voltage from Textile Triboelectric Nanogenerator (TENG). , 2019, , .		1
45	First Demonstration of Waveguide-Integrated Black Phosphorus Electro-Optic Modulator for Mid-Infrared Beyond 4 Î¼m. , 2019, , .		2
46	Ultrasensitive Transmissive Infrared Spectroscopy via Loss Engineering of Metallic Nanoantennas for Compact Devices. ACS Applied Materials & Interfaces, 2019, 11, 47270-47278.	8.0	52
47	Mid-Infrared Aluminum Nitride on Insulator (AlNOI) Platform. , 2019, , .		0
48	Black Phosphorus Based Photodetectors. ACS Symposium Series, 2019, , 135-153.	0.5	3
49	Waveguide-Integrated Black Phosphorus Photodetector for Mid-Infrared Applications. ACS Nano, 2019, 13, 913-921.	14.6	164
50	Thermal annealing study of the mid-infrared aluminum nitride on insulator (AlNOI) photonics platform. Optics Express, 2019, 27, 19815.	3.4	19
51	Aluminum nitride on insulator (AlNOI) platform for mid-infrared photonics. Optics Letters, 2019, 44, 73.	3.3	41
52	Compact Low Loss Mid-Infrared Wavelength-Flattened Directional Coupler (WFDC) for Arbitrary Power Splitting Ratio Enabled by Rib Waveguide Dispersion Engineering. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-8.	2.9	25
53	Towards low-loss waveguides in SOI and Ge-on-SOI for mid-IR sensing. Journal of Physics Communications, 2018, 2, 045029.	1.2	16
54	Mid-Infrared Slow Light Engineering and Tuning in 1-D Grating Waveguide. IEEE Journal of Selected Topics in Quantum Electronics, 2018, 24, 1-8.	2.9	21

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55	Development of Mid-IR Ring Resonators Using Vernier Effect. , 2018, , .		1
56	Wavelength-Flattened Directional Coupler Based Mid-Infrared Chemical Sensor Using Bragg Wavelength in Subwavelength Grating Structure. Nanomaterials, 2018, 8, 893.	4.1	42
57	Integration of 2D Black Phosphorus Phototransistor and Silicon Photonics Waveguide System Towards Mid-Infrared On-Chip Sensing Applications. , 2018, , .		2
58	Systematic Engineering of Mid-Infrared Flat Band Slow Light in One-Dimensional Grating Waveguide. , 2018, , .		0
59	Wavelength-Insensitive Mid-IR Directional Coupler. , 2018, , .		0
60	All-Dielectric Surface-Enhanced Infrared Absorption-Based Gas Sensor Using Guided Resonance. ACS Applied Materials & Interfaces, 2018, 10, 38272-38279.	8.0	89
61	Mid-Infrared Slow Light Engineered One-Dimensional Grating Waveguide. , 2018, , .		2
62	Rib Waveguide Dispersion Engineered Mid- Infrared Wavelength-Flattened Directional Coupler (WFDC). , 2018, , .		0
63	Efficient and broadband subwavelength grating coupler for 37 Î¼m mid-infrared silicon photonics integration. Optics Express, 2018, 26, 26242.	3.4	30
64	Deterministic aperiodic photonic crystal nanobeam supporting adjustable multiple mode-matched resonances. Optics Letters, 2018, 43, 5407.	3.3	29
65	Dispersion engineering and thermo-optic tuning in mid-infrared photonic crystal slow light waveguides on silicon-on-insulator. Optics Letters, 2018, 43, 5504.	3.3	44
66	Silicon-on-Insulator Waveguide Devices for Broadband Mid-Infrared Photonics. IEEE Photonics Journal, 2017, 9, 1-10.	2.0	52
67	Infrared Black Phosphorus Phototransistor with Tunable Responsivity and Low Noise Equivalent Power. ACS Applied Materials & Interfaces, 2017, 9, 36130-36136.	8.0	73
68	Compact low loss silicon-on-insulator waveguide for broadband mid-infrared photonics. , 2017, , .		0
69	Mid-IR waveguides in SOI platform. , 2017, , .		0
70	Silicon photonic platforms for mid-infrared applications [Invited]. Photonics Research, 2017, 5, 417.	7.0	229
71	Broadband mid-infrared silicon-on-insulator waveguide devices. , 2017, , .		0