

Zhanghua Han

List of Publications by Year in descending order

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103
papers

4,238
citations

201674

27
h-index

110387

64
g-index

104
all docs

104
docs citations

104
times ranked

3821
citing authors

#	ARTICLE	IF	CITATIONS
1	A novel mid-infrared thermal emitter with ultra-narrow bandwidth and large spectral tunability based on the bound state in the continuum. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 025104.	2.8	7
2	High-directionality spin-selective routing of photons in plasmonic nanocircuits. <i>Nanoscale</i> , 2022, 14, 428-432.	5.6	3
3	High Sensitivity Temperature and Curvature Sensor Based on Mach-Zehnder Interferometer With Tapered Two Peanut-Shaped Structures. <i>IEEE Sensors Journal</i> , 2022, 22, 4135-4143.	4.7	5
4	Narrow Linewidth Semiconductor Laser Based on Anti-Symmetric Bragg Grating. <i>Journal of Lightwave Technology</i> , 2022, 40, 762-769.	4.6	0
5	On-Chip Detection of Multiwavelength Surface Plasmon Polaritons Based on Plasmonic Demultiplexers. <i>ACS Photonics</i> , 2022, 9, 391-397.	6.6	12
6	Spectral stability of bound state in the continuum resonances due to thermal effect and the application as efficient thermo-optic modulators. <i>Optics Communications</i> , 2022, 515, 128216.	2.1	4
7	Terahertz sensing with high sensitivity and substance identification capability using a novel High-quality resonance supported by a thin structured silicon film. <i>Optics and Laser Technology</i> , 2022, 152, 108177.	4.6	2
8	1D quasi-bound states in the continuum with large operation bandwidth in the k space for nonlinear optical applications. <i>Photonics Research</i> , 2022, 10, 1575.	7.0	18
9	Highly Sensitive Thin-Film Sensing with a Toroidal Dipole Resonance in the Midinfrared Supported by an E-Shaped Germanium Metasurface. <i>Advanced Photonics Research</i> , 2022, 3, .	3.6	2
10	Numerical study of terahertz radiations from difference frequency generation with large spectral tunability and significantly enhanced conversion efficiencies boosted by 1D leaky modes. <i>Journal Physics D: Applied Physics</i> , 2022, 55, 385106.	2.8	3
11	Plasmon Generation and Routing in Nanowire-Based Hybrid Plasmonic Coupling Systems With Incorporated Nanodisk Antennas. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-7.	2.9	2
12	Ultrasensitive terahertz sensing with high-Q toroidal dipole resonance governed by bound states in the continuum in all-dielectric metasurface. <i>Nanophotonics</i> , 2021, 10, 1295-1307.	6.0	160
13	All-Dielectric Graphene-induced T-Slot Waveguide Electro-Optic Modulator With Polarization-Independent Operation. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-8.	2.9	3
14	Metasurface circular polarizer based on rotational symmetric nanoholes. <i>Nanotechnology</i> , 2021, 32, 315203.	2.6	13
15	Engineering Spectrum of Mode Converter Based on Cascaded Bragg Gratings. <i>IEEE Journal of Quantum Electronics</i> , 2021, 57, 1-7.	1.9	2
16	Multiple dissipative soliton Yb-doped fiber laser without an additional filter. <i>European Physical Journal D</i> , 2021, 75, 1.	1.3	1
17	A High Sensitivity Curvature Sensor Based on Microfiber Mach-Zehnder Interferometer With Tapered Seven-Core Fiber. <i>IEEE Sensors Journal</i> , 2021, 21, 24090-24097.	4.7	10
18	All-optical self-switching with ultralow incident laser intensity assisted by a bound state in the continuum. <i>Optics Letters</i> , 2021, 46, 524.	3.3	13

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19	Significantly enhanced second-harmonic generations with all-dielectric antenna array working in the quasi-bound states in the continuum and excited by linearly polarized plane waves. <i>Nanophotonics</i> , 2021, 10, 1189-1196.	6.0	37
20	Ultra-narrowband and highly-directional THz thermal emitters based on the bound state in the continuum. <i>Nanophotonics</i> , 2021, 10, 4035-4043.	6.0	17
21	Spin-orbit-enabled sorting of optical flows in plasmonic nanocircuits. <i>Optics Letters</i> , 2021, 46, 5675.	3.3	2
22	Bragg-Mirror-Assisted High-Contrast Plasmonic Interferometers: Concept and Potential in Terahertz Sensing. <i>Nanomaterials</i> , 2020, 10, 1385.	4.1	6
23	Experimental Demonstration of Compact Mode Converter Based on Conformal Dielectric Metasurface. <i>IEEE Photonics Technology Letters</i> , 2020, 32, 1143-1146.	2.5	7
24	Symmetry-broken silicon disk array as an efficient terahertz switch working with ultra-low optical pump power*. <i>Chinese Physics B</i> , 2020, 29, 084209.	1.4	8
25	Ultrasensitive detection of saccharides using terahertz sensor based on metallic nano-slits. <i>Scientific Reports</i> , 2020, 10, 3712.	3.3	8
26	Tilting of Bragg Waveguide Gratings Using Two-Dimensional Sampling Structures. <i>Journal of Lightwave Technology</i> , 2020, 38, 4402-4408.	4.6	1
27	Generation of diffraction-free beams using resonant metasurfaces. <i>New Journal of Physics</i> , 2020, 22, 103064.	2.9	8
28	Strong second-harmonic generation in dielectric optical nanoantennas resulting from the hybridization of magnetic dipoles and lattice resonances. <i>Journal of the Optical Society of America B: Optical Physics</i> , 2020, 37, 3146.	2.1	10
29	Novel Terahertz Sources in the Form of Multispectral Resonators Boosted by Both Pump Light Local Field Enhancement and Terahertz Purcell Effect. <i>ACS Photonics</i> , 2019, 6, 2223-2230.	6.6	0
30	Terahertz detection of toxic gas using a photonic crystal fiber. <i>Optical Fiber Technology</i> , 2019, 52, 101990.	2.7	23
31	Tunable hybridization induced transparency for efficient terahertz sensing. <i>Optics Express</i> , 2019, 27, 9032.	3.4	10
32	A sensitive and selective terahertz sensor for the fingerprint detection of lactose. <i>Talanta</i> , 2019, 192, 1-5.	5.5	41
33	Terahertz refractive index sensor based on the guided resonance in a photonic crystal slab. <i>Optics Communications</i> , 2019, 434, 163-166.	2.1	23
34	Planar antenna array as a highly sensitive terahertz sensor. <i>Applied Optics</i> , 2019, 58, 540.	1.8	35
35	Highly sensitive terahertz fingerprint sensing with high-Q guided resonance in photonic crystal cavity. <i>Optics Express</i> , 2019, 27, 16071.	3.4	14
36	THz wavefront manipulation based on metal waveguides. <i>Journal of Modern Optics</i> , 2018, 65, 1416-1423.	1.3	0

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37	Experimental Demonstration of Spoof Surface Plasmon Based THz Antennas for Huge Electric Field Enhancement. <i>Plasmonics</i> , 2018, 13, 531-535.	3.4	2
38	Generation and investigation of terahertz Airy beam realized using parallel-plate waveguides. <i>Optics Communications</i> , 2018, 410, 520-524.	2.1	6
39	Highly sensitive and selective gas sensing using the defect mode of a compact terahertz photonic crystal cavity. <i>Sensors and Actuators B: Chemical</i> , 2018, 274, 188-193.	7.8	23
40	Bessel-like beam generated by an axicon based on parallel-plate waveguides. <i>Applied Optics</i> , 2018, 57, 6174.	1.8	5
41	Spectroscopy and mapping of resonant fields in terahertz plasmonic resonators. , 2017, , .		0
42	Detection of internal fields in double-metal terahertz resonators. <i>Applied Physics Letters</i> , 2017, 110, .	3.3	14
43	Enhanced terahertz fingerprint detection with ultrahigh sensitivity using the cavity defect modes. <i>Scientific Reports</i> , 2017, 7, 13147.	3.3	25
44	Efficient Terahertz Plasmonic Absorbers with V-Grooves Using Highly Doped Silicon Substrate and Simple Wet-Etching Techniques. <i>Journal of Infrared, Millimeter, and Terahertz Waves</i> , 2017, 38, 1502-1509.	2.2	7
45	Enhanced terahertz sensing with a coupled comb-shaped spoof surface plasmon waveguide. <i>Optics Express</i> , 2017, 25, 278.	3.4	31
46	Experimental realization of perfect terahertz plasmonic absorbers using highly doped silicon substrate and CMOS-compatible techniques. <i>Optical Materials Express</i> , 2016, 6, 523.	3.0	14
47	Spoof surface plasmon based planar antennas for the realization of Terahertz hotspots. <i>Scientific Reports</i> , 2016, 5, 18606.	3.3	25
48	Hybrid grapheme plasmonic waveguide modulators. , 2016, , .		0
49	Efficient and broadband Terahertz plasmonic absorbers using highly doped Si as the plasmonic material. <i>AIP Advances</i> , 2015, 5, .	1.3	17
50	Hybrid graphene plasmonic waveguide modulators. <i>Nature Communications</i> , 2015, 6, 8846.	12.8	232
51	Metal-loaded graphene surface plasmon waveguides working in the terahertz regime. <i>Optics Communications</i> , 2015, 355, 602-606.	2.1	8
52	Spoof surface plasmon-based stripe antennas with extreme field enhancement in the terahertz regime. <i>Optics Letters</i> , 2015, 40, 2533.	3.3	39
53	One-Dimensional Spoof Surface Plasmon Structures for Planar Terahertz Photonic Integration. <i>Journal of Lightwave Technology</i> , 2015, 33, 3796-3800.	4.6	10
54	Spoof plasmon resonance with 1D periodic grooves for terahertz refractive index sensing. <i>Optics Communications</i> , 2015, 340, 102-106.	2.1	18

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55	On-Chip Detection of Radiation Guided by Dielectric-Loaded Plasmonic Waveguides. Nano Letters, 2015, 15, 476-480.	9.1	24
56	A high Q terahertz asymmetrically coupled resonator and its sensing performance. Frontiers of Optoelectronics, 2015, 8, 68-72.	3.7	5
57	Terahertz broadband polarizer using bilayer subwavelength metal wire-grid structure on polyimide film. Chinese Optics Letters, 2015, 13, 012303-12306.	2.9	4
58	Waveguiding with Surface Plasmon Polaritons. Handbook of Surface Science, 2014, 4, 137-187.	0.3	2
59	Analogue of electromagnetically induced transparency in integrated plasmonics with radiative and subradiant resonators. Optics Express, 2014, 22, 21529.	3.4	60
60	Nanofocusing in circular sector-like nanoantennas. Optics Express, 2014, 22, 10341.	3.4	9
61	Terahertz gas sensing based on high Q one-dimensional photonic crystal cavity. , 2014, , .		0
62	Terahertz gas sensing based on a simple one-dimensional photonic crystal cavity with high-quality factors. Applied Optics, 2014, 53, 3454.	1.8	59
63	Graphene-protected copper and silver plasmonics. Scientific Reports, 2014, 4, 5517.	3.3	217
64	Compact and broadband directional coupling and demultiplexing in dielectric-loaded surface plasmon polariton waveguides based on the multimode interference effect. Applied Physics Letters, 2013, 103, .	3.3	24
65	CMOS-Compatible Long-Range Dielectric-Loaded Plasmonic Waveguides. Journal of Lightwave Technology, 2013, 31, 3361-3367.	4.6	12
66	Wide-bandwidth polarization-independent optical band-stop filter based on plasmonic nanoantennas. Applied Physics A: Materials Science and Processing, 2013, 110, 71-75.	2.3	8
67	Radiation guiding with surface plasmon polaritons. Reports on Progress in Physics, 2013, 76, 016402.	20.1	244
68	Detuned-resonator induced transparency in dielectric-loaded plasmonic waveguides. Optics Letters, 2013, 38, 875.	3.3	23
69	Directional coupling in long-range dielectric-loaded plasmonic waveguides. Optics Express, 2013, 21, 8799.	3.4	8
70	Generation of diffraction-free plasmonic beams with one-dimensional Bessel profiles. Optics Letters, 2013, 38, 905.	3.3	43
71	Calculation of bending losses for highly confined modes of optical waveguides with transformation optics. Optics Letters, 2013, 38, 1778.	3.3	18
72	Directional coupling in channel plasmon-polariton waveguides. Optics Express, 2012, 20, 6124.	3.4	21

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73	Partial loss compensation in dielectric-loaded plasmonic waveguides at near infra-red wavelengths. Optics Express, 2012, 20, 7771.	3.4	35
74	Plasmonic black gold by adiabatic nanofocusing and absorption of light in ultra-sharp convex grooves. Nature Communications, 2012, 3, 969.	12.8	274
75	Experimental characterization of dielectric-loaded plasmonic waveguide-racetrack resonators at near-infrared wavelengths. Applied Physics B: Lasers and Optics, 2012, 107, 401-407.	2.2	13
76	Dispersion of strongly confined channel plasmon polariton modes. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 1596.	2.1	19
77	Plasmon-induced transparency with detuned ultracompact Fabry-Perot resonators in integrated plasmonic devices. Optics Express, 2011, 19, 3251.	3.4	300
78	Long-range dielectric-loaded surface plasmon polariton waveguides operating at telecommunication wavelengths. Optics Letters, 2011, 36, 4278.	3.3	68
79	Efficient channel-plasmon excitation by nano-mirrors. Applied Physics Letters, 2011, 99, 213109.	3.3	15
80	Compact on-Chip Temperature Sensors Based on Dielectric-Loaded Plasmonic Waveguide-Ring Resonators. Sensors, 2011, 11, 1992-2000.	3.8	13
81	Ultrafast silicon-plasmonic modulators. , 2010, , .		0
82	Ultracompact plasmonic racetrack resonators in metal-insulator-metal waveguides. Photonics and Nanostructures - Fundamentals and Applications, 2010, 8, 172-176.	2.0	33
83	Experimental Realization of Sub-Wavelength Plasmonic Slot Waveguides and Couplers on Silicon-on-Insulator. , 2010, , .		1
84	Wideband Y-splitter and aperture-assisted coupler based on sub-diffraction confined plasmonic slot waveguides. Applied Physics Letters, 2010, 96, 131106.	3.3	30
85	Conductor-gap-silicon plasmonic waveguides and passive components at subwavelength scale. Optics Express, 2010, 18, 11728.	3.4	196
86	Experimental realization of subwavelength plasmonic slot waveguides on a silicon platform. Optics Letters, 2010, 35, 502.	3.3	128
87	Extreme Miniaturization of Silicon Add-Drop Microring Filters for VLSI Photonics Applications. IEEE Photonics Journal, 2010, 2, 436-444.	2.0	66
88	Extreme miniaturization of Silicon add-drop microring filters for WDM applications. , 2010, , .		0
89	Ultrafast all-optical modulation in silicon-based nanoplasmonic devices. Optics Express, 2009, 17, 11045.	3.4	27
90	Aperture-coupled MIM plasmonic ring resonators with sub-diffraction modal volumes. Optics Express, 2009, 17, 12678.	3.4	79

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91	Ultra-compact SOI Microring Add-Drop Filter With Wide Bandwidth and Wide FSR. IEEE Photonics Technology Letters, 2009, 21, 651-653.	2.5	78
92	Aperture-Coupled Plasmonic Ring Resonators with Submicron Bending Radii. , 2009, , .		0
93	Ultrafast All-Optical Switching in Silicon-Based Plasmonic Waveguides. , 2009, , .		0
94	Wideband 1.5- μm -radius SOI add-drop microring filter for WDM on-chip interconnects. , 2009, , .		1
95	Strong resonant coupling of surface plasmon polaritons to radiation modes through a thin metal slab with dielectric gratings. Journal of the Optical Society of America A: Optics and Image Science, and Vision, 2007, 24, 225.	1.5	20
96	Two-dimensional model for three-dimensional index-guided multimode plasmonic waveguides and the design of ultrasmall multimode interference splitters. Applied Optics, 2007, 46, 6223.	2.1	15
97	Surface Plasmon Bragg Gratings Formed in Metal-Insulator-Metal Waveguides. IEEE Photonics Technology Letters, 2007, 19, 91-93.	2.5	343
98	Multimode interference effect in plasmonic subwavelength waveguides and an ultra-compact power splitter. Optics Communications, 2007, 278, 199-203.	2.1	60
99	Highly integrated planar lightwave circuits based on plasmonic and Si nano-waveguides. Proceedings of SPIE, 2006, , .	0.8	1
100	Ultra-compact directional couplers and Mach-Zehnder interferometers employing surface plasmon polaritons. Optics Communications, 2006, 259, 690-695.	2.1	162
101	Synthesis and characterization of InP and Ga ₂ O ₃ nanowires. , 2005, , .		0
102	Fabrication and characterization of $\text{In}^2\text{-Ga}_2\text{O}_3$ optical nanowires. Physica E: Low-Dimensional Systems and Nanostructures, 2005, 30, 150-154.	2.7	24
103	Novel surface plasmon waveguide for high integration. Optics Express, 2005, 13, 6645.	3.4	470