Xin Gai

List of Publications by Year
in descending order

59 papers	2,545 citations	304743 22 h-index	377865 34 g-index
59 all docs	59 docs citations	59 times ranked	2889 citing authors

#	Article	IF	Citations
1	Ultra-low-power four-wave mixing wavelength conversion in high-Q chalcogenide microring resonators. Optics Letters, 2021, 46, 2912.	3.3	5
2	Third-order nonlinear optical properties of Ge-As-Te chalcogenide glasses in mid-infrared. Optical Materials Express, 2020, 10, 1413.	3.0	21
3	Demonstration of compact high-Q Ge11.5As24Se64.5 chalcogenide microring resonators in telecom band. , 2020, , .		0
4	Mid-infrared Waveguides and Applications. , 2018, , .		0
5	Highâ€Efficiency Allâ€Dielectric Metalenses for Midâ€Infrared Imaging. Advanced Optical Materials, 2017, 5, 1700585.	7.3	75
6	Highâ€"bit rate ultra-compact light routing with mode-selective on-chip nanoantennas. Science Advances, 2017, 3, e1700007.	10.3	64
7	Mid-infrared supercontinuum generation in high-contrast, fusion-bonded silicon membrane waveguides. , 2017, , .		1
8	CMOS compatible fabrication of micro, nano convex silicon lens arrays by conformal chemical vapor deposition. Optics Express, 2017, 25, 3069.	3.4	29
9	Waveguides for Nonlinear Optics in the Mid-Infrared. , 2017, , .		0
10	Experimental demonstration of linearly polarized 2â€"10â€‰â€‰Î¼m supercontinuum generation in a chalcogenide rib waveguide. Optics Letters, 2016, 41, 958.	3.3	96
11	High Brightness 2.2â€"12 Î¼m Midâ€Infrared Supercontinuum Generation in a Nontoxic Chalcogenide Stepâ€Index Fiber. Journal of the American Ceramic Society, 2016, 99, 2565-2568.	3.8	87
12	Producing air-stable monolayers of phosphorene and their defect engineering. Nature Communications, 2016, 7, 10450.	12.8	443
13	Spectroscopy Application of Linearly Polarized 2-10 Î¼m Supercontinuum in a Chalcogenide Rib Waveguide. , 2016, , .		1
14	Oxygen Plasma Produced Stable Few-layer Phosphorene in the Air. , 2016, , .		0
15	Identifying the best chalcogenide glass compositions for the application in mid-infrared waveguides. Proceedings of SPIE, 2015, , .	0.8	5
16	18-10â€‰â€‰Î¼m mid-infrared supercontinuum generated in a step-index chalcogenide fiber using low peak pump power. Optics Letters, 2015, 40, 1081.	3.3	159
17	Multi-milliwatt mid-infrared supercontinuum generation in a suspended core chalcogenide fiber. Optics Express, 2015, 23, 3282.	3.4	193
18	Two-Octave Mid-Infrared Supercontinuum Generation in As-Se Suspended Core Fibers. , 2015, , .		1

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19	Mid infrared supercontinuum generation from chalcogenide glass waveguides and fibers. , 2015, , .		1
20	High-resolution chalcogenide fiber bundles for infrared imaging. Optics Letters, 2015, 40, 4384.	3.3	29
21	Materials and Structures for Nonlinear Photonics. Springer Series in Optical Sciences, 2015, , 1-33.	0.7	1
22	A two-octave broadband quasi-continuous mid-infrared supercontinuum generated in a chalcogenide glass waveguide. , 2014, , .		0
23	Negligible nonlinear absorption in hydrogenated amorphous silicon at 155Î¼m for ultra-fast nonlinear signal processing. Optics Express, 2014, 22, 9948.	3.4	45
24	A Broadband Mid-Infrared Supercontinuum Generated in a Short Chalcogenide Glass Waveguide. , 2014, , .		0
25	Rheology evolution of sludge through high-solid anaerobic digestion. Bioresource Technology, 2014, 174, 6-10.	9.6	71
26	Chalcogenide planar waveguides for mid-infrared applications. , 2014, , .		0
27	Systematic z-scan measurements of the third order nonlinearity of chalcogenide glasses. Optical Materials Express, 2014, 4, 1011.	3.0	160
28	A broadband, quasi-continuous, mid-infrared supercontinuum generated in a chalcogenide glass waveguide. Laser and Photonics Reviews, 2014, 8, 792-798.	8.7	141
29	Low-loss chalcogenide waveguides for biosensing in the mid-infrared. , 2014, , .		0
30	Nonlinear absorption and refraction in crystalline silicon in the midâ€infrared. Laser and Photonics Reviews, 2013, 7, 1054-1064.	8.7	77
31	Low-loss chalcogenide waveguides for chemical sensing in the mid-infrared. Optics Express, 2013, 21, 29927.	3.4	147
32	Hybrid waveguide from As_2S_3 and Er-doped TeO_2 for lossless nonlinear optics. Optics Letters, 2013, 38, 1766.	3.3	8
33	Mid-infrared supercontinuum generation in chalcogenides. Optical Materials Express, 2013, 3, 1075.	3.0	158
34	Supercontinuum generation in the mid-infrared using dispersion engineered chalcogenide glass waveguides. , 2013, , .		1
35	Hybrid As2S3:Er-TeO2 Loss Compensated Nonlinear Waveguides. , 2013, , .		0
36	Near-zero anomalous dispersion Ge_115As_24Se_645 glass nanowires for correlated photon pair generation: design and analysis. Optics Express, 2012, 20, 776.	3.4	21

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37	Polarization-independent chalcogenide glass nanowires with anomalous dispersion for all-optical processing. Optics Express, 2012, 20, 13513.	3.4	21
38	Photonic crystal nanocavities fabricated from chalcogenide glass fully embedded in an index-matched cladding with a high Q-factor (>750,000). Optics Express, 2012, 20, 15503.	3.4	27
39	Supercontinuum generation in the mid-infrared from a dispersion-engineered As_2S_3 glass rib waveguide. Optics Letters, 2012, 37, 3870.	3.3	75
40	Silver-doped arsenic selenide (Ag-As<inf>2</inf>Se<inf>3</inf>) waveguides for compact nonlinear optical devices. , 2012, , .		0
41	Effect of low-Raman window position on correlated photon-pair generation in a chalcogenide Ge11.5As24Se64.5 nanowire. Journal of Applied Physics, 2012, 112, .	2.5	11
42	High-Q (>750,000) photonic crystal nanocavities fabricated from chalcogenide glass fully embedded in an index-matched cladding. Proceedings of SPIE, 2012, , .	0.8	0
43	Interplay between Raman scattering and four-wave mixing in As_2S_3 chalcogenide glass waveguides. Journal of the Optical Society of America B: Optical Physics, 2011, 28, 2777.	2.1	16
44	Ultrahigh Q-factor Ge<inf>11.5</inf>As<inf>24</inf>Se<inf>64.5</inf> chalcogenide glass photonic crystal cavity embedded in silica. , 2011, , .		0
45	Ge<inf>11.5</inf>As<inf>24</inf>Se<inf>64.5</inf> chalcogenide glass nanowires with a nonlinear parameter of 136,000W^{−1} km^{−1} at 1550nm. , 2010, , .		0
46	Chalcogenide glass photonic crystals: progress and prospects. Proceedings of SPIE, 2010, , .	0.8	3
47	Ge<inf>11.5</inf>As<inf>24</inf>Se<inf>64.5</inf> chalcogenide glass nanowires with a nonlinear parameter of 136,000W^{−1}km^{−1} at 1550nm. , 2010, , .		0
48	Chalcogenide glasses for nonlinear photonics. , 2010, , .		0
49	Dispersion engineered Ge_115As_24Se_645 nanowires with a nonlinear parameter of 136W^-1m^-1 at 1550nm. Optics Express, 2010, 18, 18866.	3.4	74
50	Progress in optical waveguides fabricated from chalcogenide glasses. Optics Express, 2010, 18, 26635.	3.4	131
51	Photosensitive and thermal nonlinear effects in chalcogenide photonic crystal cavities. Optics Express, 2010, 18, 26695.	3.4	21
52	The Evolution of Photoinduced Photonic Crystal Cavities During Writing. , 2010, , .		0
53	Photoinduced high-Q cavities in chalcogenide photonic crystals. , 2009, , .		0
54	Supercontinuum generation and four wave mixing in Ge<inf>11</inf>As<inf>22</inf>Se<inf>67</inf> rib waveguides with a nonlinear parameter ≫26000W^{−1}km^{−1}. , 2009, , .		0

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55	Photowritten high-Q cavities in two-dimensional chalcogenide glass photonic crystals. Optics Letters, 2009, 34, 3671.	3.3	36
56	Ge11.5As24Se64.5 Glass: a New Material for the Fabrication of Highly Nonlinear (Î³â‰ˆ33,000Wâˆ’1kmâˆ’1) Dispersion Engineered Waveguides. , 2009, , .		0
57	Optical thin-film reflection filters based on the theory of photonic crystals. Applied Optics, 2008, 47, C35.	2.1	5
58	Net-gain from a parametric amplifier on a chalcogenide optical chip. Optics Express, 2008, 16, 20374.	3.4	85
59	Evaluation of a pretreatment method using cation exchange resin to enhance the sludge solubilization and disintegration for improving the efficiency of anaerobic digestion. Desalination and Water Treatment, 0, , 1-8.	1.0	0