Xin Gai

List of Publications by Year
in descending order

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59	2,545	304743	377865
papers	citations	22 h-index	34 g-index

59	59	59	2889
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Producing air-stable monolayers of phosphorene and their defect engineering. Nature Communications, 2016, 7, 10450.	12.8	443
2	Multi-milliwatt mid-infrared supercontinuum generation in a suspended core chalcogenide fiber. Optics Express, 2015, 23, 3282.	3.4	193
3	Systematic z-scan measurements of the third order nonlinearity of chalcogenide glasses. Optical Materials Express, 2014, 4, 1011.	3.0	160
4	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
5	Mid-infrared supercontinuum generation in chalcogenides. Optical Materials Express, 2013, 3, 1075.	3.0	158
6	Low-loss chalcogenide waveguides for chemical sensing in the mid-infrared. Optics Express, 2013, 21, 29927.	3.4	147
7	A broadband, quasi-continuous, mid-infrared supercontinuum generated in a chalcogenide glass waveguide. Laser and Photonics Reviews, 2014, 8, 792-798.	8.7	141
8	Progress in optical waveguides fabricated from chalcogenide glasses. Optics Express, 2010, 18, 26635.	3.4	131
9	Experimental demonstration of linearly polarized 2â€“10â€‰â€‰Î¼m supercontinuum generation in a chalcogenide rib waveguide. Optics Letters, 2016, 41, 958.	3.3	96
10	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
11	Net-gain from a parametric amplifier on a chalcogenide optical chip. Optics Express, 2008, 16, 20374.	3.4	85
12	Nonlinear absorption and refraction in crystalline silicon in the midâ€infrared. Laser and Photonics Reviews, 2013, 7, 1054-1064.	8.7	77
13	Supercontinuum generation in the mid-infrared from a dispersion-engineered As_2S_3 glass rib waveguide. Optics Letters, 2012, 37, 3870.	3.3	75
14	Highâ€Efficiency Allâ€Dielectric Metalenses for Midâ€Infrared Imaging. Advanced Optical Materials, 2017, 5, 1700585.	7.3	75
15	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
16	Rheology evolution of sludge through high-solid anaerobic digestion. Bioresource Technology, 2014, 174, 6-10.	9.6	71
17	Highâ€“bit rate ultra-compact light routing with mode-selective on-chip nanoantennas. Science Advances, 2017, 3, e1700007.	10.3	64
18	Negligible nonlinear absorption in hydrogenated amorphous silicon at 155Î¼m for ultra-fast nonlinear signal processing. Optics Express, 2014, 22, 9948.	3.4	45

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19	Photowritten high-Q cavities in two-dimensional chalcogenide glass photonic crystals. Optics Letters, 2009, 34, 3671.	3.3	36
20	High-resolution chalcogenide fiber bundles for infrared imaging. Optics Letters, 2015, 40, 4384.	3.3	29
21	CMOS compatible fabrication of micro, nano convex silicon lens arrays by conformal chemical vapor deposition. Optics Express, 2017, 25, 3069.	3.4	29
22	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
23	Photosensitive and thermal nonlinear effects in chalcogenide photonic crystal cavities. Optics Express, 2010, 18, 26695.	3.4	21
24	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
25	Polarization-independent chalcogenide glass nanowires with anomalous dispersion for all-optical processing. Optics Express, 2012, 20, 13513.	3.4	21
26	Third-order nonlinear optical properties of Ge-As-Te chalcogenide glasses in mid-infrared. Optical Materials Express, 2020, 10, 1413.	3.0	21
27	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
28	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
29	Hybrid waveguide from As_2S_3 and Er-doped TeO_2 for lossless nonlinear optics. Optics Letters, 2013, 38, 1766.	3.3	8
30	Optical thin-film reflection filters based on the theory of photonic crystals. Applied Optics, 2008, 47, C35.	2.1	5
31	Identifying the best chalcogenide glass compositions for the application in mid-infrared waveguides. Proceedings of SPIE, 2015, , .	0.8	5
32	Ultra-low-power four-wave mixing wavelength conversion in high-Q chalcogenide microring resonators. Optics Letters, 2021, 46, 2912.	3.3	5
33	Chalcogenide glass photonic crystals: progress and prospects. Proceedings of SPIE, 2010, , .	0.8	3
34	Two-Octave Mid-Infrared Supercontinuum Generation in As-Se Suspended Core Fibers. , 2015, , .		1
35	Mid infrared supercontinuum generation from chalcogenide glass waveguides and fibers. , 2015, , .		1
36	Mid-infrared supercontinuum generation in high-contrast, fusion-bonded silicon membrane waveguides. , 2017, , .		1

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37	Materials and Structures for Nonlinear Photonics. Springer Series in Optical Sciences, 2015, , 1-33.	0.7	1
38	Supercontinuum generation in the mid-infrared using dispersion engineered chalcogenide glass waveguides. , 2013, , .		1
39	Spectroscopy Application of Linearly Polarized 2-10 Î¼m Supercontinuum in a Chalcogenide Rib Waveguide. , 2016, , .		1
40	Photoinduced high-Q cavities in chalcogenide photonic crystals. , 2009, , .		0
41	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
42	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
43	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
44	Chalcogenide glasses for nonlinear photonics. , 2010, , .		0
45	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
46	Silver-doped arsenic selenide (Ag-As<inf>2</inf>Se<inf>3</inf>) waveguides for compact nonlinear optical devices. , 2012, , .		0
47	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
48	A two-octave broadband quasi-continuous mid-infrared supercontinuum generated in a chalcogenide glass waveguide. , 2014, , .		0
49	A Broadband Mid-Infrared Supercontinuum Generated in a Short Chalcogenide Glass Waveguide. , 2014, , .		0
50	Chalcogenide planar waveguides for mid-infrared applications. , 2014, , .		0
51	Low-loss chalcogenide waveguides for biosensing in the mid-infrared. , 2014, , .		0
52	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
53	Ge11.5As24Se64.5 Glass: a New Material for the Fabrication of Highly Nonlinear (Î³â‰ˆ33,000Wâˆ’1kmâˆ’1) Dispersion Engineered Waveguides. , 2009, , .		0
54	The Evolution of Photoinduced Photonic Crystal Cavities During Writing. , 2010, , .		0

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55	Hybrid As2S3:Er-TeO2 Loss Compensated Nonlinear Waveguides. , 2013, , .		0
56	Oxygen Plasma Produced Stable Few-layer Phosphorene in the Air. , 2016, , .		0
57	Waveguides for Nonlinear Optics in the Mid-Infrared. , 2017, , .		0
58	Mid-infrared Waveguides and Applications. , 2018, , .		0
59	Demonstration of compact high-Q Ge11.5As24Se64.5 chalcogenide microring resonators in telecom band. , 2020, , .		0