Angela B Seddon

List of Publications by Year
in descending order

116 papers	3,087 citations	331670 21 h-index	161849 54 g-index
118 all docs	118 docs citations	118 times ranked	2377 citing authors

#	ARTICLE	IF	CITATIONS
1	Mid-infrared supercontinuum covering the 1.4â€“13.3â€…Î¼m molecular fingerprint region using ultra-high NA chalcogenide step-index fibre. Nature Photonics, 2014, 8, 830-834.	31.4	811
2	Progress in rare-earth-doped mid-infrared fiber lasers. Optics Express, 2010, 18, 26704.	3.4	269
3	Near- and mid-infrared spectroscopy of solâ€“gel derived ormosils: vinyl and phenyl silicates. Journal of Non-Crystalline Solids, 1997, 210, 187-203.	3.1	204
4	A Prospective for New Midâ€Infrared Medical Endoscopy Using Chalcogenide Glasses. International Journal of Applied Glass Science, 2011, 2, 177-191.	2.0	129
5	Thulium pumped mid-infrared 09â€“9Î¼m supercontinuum generation in concatenated fluoride and chalcogenide glass fibers. Optics Express, 2014, 22, 3959.	3.4	126
6	Midâ€infrared (IR) â€“ A hot topic: The potential for using midâ€IR light for nonâ€invasive early detection of skin cancer <i>in vivo</i>. Physica Status Solidi (B): Basic Research, 2013, 250, 1020-1027.	1.5	119
7	Fluorotellurite glasses with improved mid-infrared transmission. Journal of Non-Crystalline Solids, 2003, 331, 48-57.	3.1	112
8	Mid-infrared supercontinuum generation to 125Î¼m in large NA chalcogenide step-index fibres pumped at 45Î¼m. Optics Express, 2014, 22, 19169.	3.4	83
9	Low loss Ge-As-Se chalcogenide glass fiber, fabricated using extruded preform, for mid-infrared photonics. Optical Materials Express, 2015, 5, 1722.	3.0	79
10	Refractive index dispersion of chalcogenide glasses for ultra-high numerical-aperture fiber for mid-infrared supercontinuum generation. Optical Materials Express, 2014, 4, 1444.	3.0	78
11	Mid-infrared photoluminescence in small-core fiber of praseodymium-ion doped selenide-based chalcogenide glass. Optical Materials Express, 2015, 5, 870.	3.0	58
12	Extrusion of chalcogenide glass preforms and drawing to multimode optical fibers. Journal of Non-Crystalline Solids, 2008, 354, 3418-3427.	3.1	57
13	Embossing of chalcogenide glasses: monomode rib optical waveguides in evaporated thin films. Optics Letters, 2009, 34, 1234.	3.3	55
14	Nucleation and crystallisation of transparent, erbium III-doped, oxyfluoride glass-ceramics. Journal of Non-Crystalline Solids, 2001, 290, 25-31.	3.1	47
15	Crystallization behavior of Dy3+-doped selenide glasses. Journal of Non-Crystalline Solids, 2011, 357, 2453-2462.	3.1	39
16	Title is missing!. Journal of Materials Science Letters, 2002, 21, 293-295.	0.5	36
17	Prospective on using fibre mid-infrared supercontinuum laser sources for <i>in vivo</i> spectral discrimination of disease. Analyst, The, 2018, 143, 5874-5887.	3.5	32
18	Solid Microstructured Chalcogenide Glass Optical Fibers for the Near- and Mid-Infrared Spectral Regions. IEEE Photonics Technology Letters, 2009, 21, 1804-1806.	2.5	30

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19	Experimental Investigation of Mid-Infrared Laser Action From Dy³⁺ Doped Fluorozirconate Fiber. IEEE Photonics Technology Letters, 2018, 30, 1083-1086.	2.5	26
20	Strengthening of glass rods with ormosil polymeric coatings. Journal of Non-Crystalline Solids, 1995, 185, 1-17.	3.1	24
21	Title is missing!. Journal of Sol-Gel Science and Technology, 2000, 19, 687-690.	2.4	24
22	Measurement of non-linear optical coefficients of chalcogenide glasses near the fundamental absorption band edge. Journal of Non-Crystalline Solids, 2018, 480, 13-17.	3.1	22
23	The Influence of Dysprosium Addition on the Crystallization Behavior of a Chalcogenide Selenide Glass Close to the Fiber Drawing Temperature. Journal of the American Ceramic Society, 2012, 95, 3834-3841.	3.8	21
24	Promising emission behavior in Pr 3+ /In selenide-chalcogenide-glass small-core step index fiber (SIF). Optical Materials, 2017, 67, 98-107.	3.6	21
25	Compositional dependence of crystallization in Geâ€“Sbâ€“Se glasses relevant to optical fiber making. Journal of the American Ceramic Society, 2018, 101, 208-219.	3.8	21
26	Nonlinear optical response and heating of chalcogenide glasses upon irradiation by the ultrashort laser pulses. Optical Engineering, 2014, 53, 071812.	1.0	20
27	Milliwatt-Level Spontaneous Emission Across the 3.5â€“8 Âµm Spectral Region from Pr3+ Doped Selenide Chalcogenide Fiber Pumped with a Laser Diode. Applied Sciences (Switzerland), 2020, 10, 539.	2.5	20
28	On a qualitative model for the incorporation of fluoride nano-crystals within an oxide glass network in oxy-fluoride glass-ceramics. Journal of Non-Crystalline Solids, 2004, 337, 191-195.	3.1	18
29	Mid-infrared integrated optics: versatile hot embossing of mid-infrared glasses for on-chip planar waveguides for molecular sensing. Optical Engineering, 2014, 53, 071824.	1.0	18
30	Ultra-broadband mid-infrared emission from a Pr³⁺/Dy³⁺ co-doped selenide-chalcogenide glass fiber spectrally shaped by varying the pumping arrangement [Invited]. Optical Materials Express, 2019, 9, 2291.	3.0	18
31	Optical characterisation of Er 3+ -doped oxyfluoride glasses and nano-glass-ceramics. Materials Letters, 2014, 136, 233-236.	2.6	17
32	Coâ€Extrusion of Multilayer Glass Fiberâ€Optic Preforms: Prediction of Layer Dimensions in the Extrudate. Journal of the American Ceramic Society, 2013, 96, 118-124.	3.8	16
33	Correlating structure with non-linear optical properties in xAs₄₀Se₆₀Â·(1 âˆ’) Tj ETQq1 1 0.784314 rgBT /Ov	2.8	16
34	Experimental observation of gain in a resonantly pumped Pr3+-doped chalcogenide glass mid-infrared fibre amplifier notwithstanding the signal excited-state absorption. Scientific Reports, 2019, 9, 11426.	3.3	16
35	Gain-switched Dy³⁺:ZBLAN fiber laser operating around 3 Î¼m. JPhys Photonics, 2020, 2, 014003.	4.6	15
36	First Identification of Rareâ€Earth Oxide Nucleation in Chalcogenide Glasses and Implications for Fabrication of Midâ€Infrared Active Fibers. Journal of the American Ceramic Society, 2014, 97, 432-441.	3.8	13

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37	Low-temperature photoluminescence in chalcogenide glasses doped with rare-earth ions. Journal of Alloys and Compounds, 2015, 648, 237-243.	5.5	12
38	Fabrication of stable, low optical loss rib-waveguides via embossing of sputtered chalcogenide glass-film on glass-chip. Optical and Quantum Electronics, 2015, 47, 351-361.	3.3	12
39	Experimental Investigation of Actively Q-Switched Er3+:ZBLAN Fiber Laser Operating at around 2.8 Âµm. Sensors, 2020, 20, 4642.	3.8	12
40	Investigation of ZnSe stability and dissolution behavior in As-S-Se chalcogenide glasses. Journal of Non-Crystalline Solids, 2021, 555, 120619.	3.1	12
41	Experimental photoluminescence and lifetimes at wavelengths including beyond 7 microns in Sm³⁺-doped selenide-chalcogenide glass fibers. Optics Express, 2020, 28, 12373.	3.4	12
42	Effects of Oxide Content on the Glassâ€Forming Ability of the Ga₂S₃â€Na₂S System. Journal of the American Ceramic Society, 1998, 81, 3353-3356.	3.8	11
43	Galliumâ€“lanthanumâ€“sulphide glasses: a review of recent crystallisation studies. Journal of Non-Crystalline Solids, 1999, 256-257, 17-24.	3.1	11
44	Temperature dependence of viscosity of Er3+-doped oxyfluoride glasses and nano-glass-ceramics. Journal of Materials Science: Materials in Electronics, 2007, 18, 145-151.	2.2	11
45	Comparative Modeling of Infrared Fiber Lasers. Photonics, 2018, 5, 48.	2.0	11
46	Spatiotemporal modeling of mid-infrared photoluminescence from terbium(III) ion doped chalcogenide-selenide multimode fibers. Journal of Rare Earths, 2019, 37, 1157-1163.	4.8	11
47	Mid-infrared spectral classification of endometrial cancer compared to benign controls in serum or plasma samples. Analyst, The, 2021, 146, 5631-5642.	3.5	11
48	Extrusion method for making fiber optic preforms of special glasses. , 1998, , .		10
49	Dy³⁺â€Doped Selenide Chalcogenide Glasses: Influence of Dy³⁺ Dopantâ€Additive and Containment. Journal of the American Ceramic Society, 2016, 99, 2283-2291.	3.8	10
50	Comparative study of praseodymium additives in active selenide chalcogenide optical fibers. Optical Materials Express, 2018, 8, 3910.	3.0	10
51	The decisive role of oxide content in the formation and crystallization of gallium-lanthanum-sulfide glasses. Journal of Materials Research, 1999, 14, 2621-2627.	2.6	9
52	Chalcogenide glass films for the bonding of GaAs optical parametric oscillator elements. , 2004, , .		9
53	Femtosecond Laser Processing as an Advantageous 3-D Technology for the Fabrication of Highly Nonlinear Chip-Scale Photonic Devices. Journal of Lightwave Technology, 2009, 27, 3275-3282.	4.6	9
54	Low galliumâ€content, dysprosium <scp>III</scp>â€doped, Geâ€“Asâ€“Gaâ€“Se chalcogenide glasses for active midâ€infrared fiber optics. Journal of the American Ceramic Society, 2019, 102, 195-206.	3.8	9

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55	Experimental and numerical investigation to rationalize both near-infrared and mid-infrared spontaneous emission inÂPr3+ doped selenide-chalcogenide fiber. Journal of Luminescence, 2019, 209, 14-20.	3.1	9
56	CdSe Quantum Dot Doped Amine-Functionalized Ormosils. Journal of Sol-Gel Science and Technology, 1998, 13, 623-628.	2.4	8
57	The local environment of Dy3+in selenium-rich chalcogenide glasses. RSC Advances, 2014, 4, 42364-42371.	3.6	8
58	Time-resolved terahertz spectroscopy of charge carrier dynamics in the chalcogenide glass As_30Se_30Te_40 [Invited]. Photonics Research, 2016, 4, A22.	7.0	8
59	Toward Mid-Infrared, Subdiffraction, Spectral-Mapping of Human Cells and Tissue: SNIM (Scanning) Tj ETQq1 1 0.784314 rgBT /Overl	4.6	8
60	Quasi-hemispherical voids micropatterned PDMS as strain sensor. Optical Materials, 2018, 86, 408-413.	3.6	8
61	Potential of organic-inorganic hybrid materials derived by sol-gel for photonic applications. Proceedings of SPIE, 1997, 10290, 143.	0.8	7
62	Thermal Analysis of Inorganic Compound Glasses and Glass-Ceramics. , 0, , 410-449.		7
63	Vibrational Biospectroscopy: An Alternative Approach to Endometrial Cancer Diagnosis and Screening. International Journal of Molecular Sciences, 2022, 23, 4859.	4.1	7
64	Spectroscopic studies of bulk AS 2 S 3 glasses and amorphous films doped with Dy, Sm and Mn. , 2002, , .		6
65	Ion-exchanged planar waveguides in different Er3+-doped tellurite glasses. , 2003, , .		6
66	Towards the mid-infrared optical biopsy. Proceedings of SPIE, 2016, , .	0.8	6
67	<title>Gallium-lanthanum-sulphide glasses: extrusion of fiber optic preforms and relevant physical properties</title>. , 1999, 3849, 160.		5
68	Experimental studies of non-linear properties of chalcogenide glasses. , 2009, , .		5
69	The effect of the nature of the rare earth additive on chalcogenide glass stability. Proceedings of SPIE, 2011, , .	0.8	5
70	Predictive, Miniature Coâ€Extrusion of Multilayered Glass Fiberâ€Optic Preforms. Journal of the American Ceramic Society, 2016, 99, 106-114.	3.8	5
71	Numerical analysis of spontaneous mid-infrared light emission from terbium ion doped multimode chalcogenide fibers. Journal of Luminescence, 2018, 199, 112-115.	3.1	5
72	Evaluating the cytotoxicity of Geâ€"Sbâ€"Se chalcogenide glass optical fibres on 3T3 mouse fibroblasts. RSC Advances, 2021, 11, 8682-8693.	3.6	5

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73	Determining the continuous thermo-optic coefficients of chalcogenide glass thin films in the MIR region using FTIR transmission spectra. Optics Express, 2019, 27, 22275.	3.4	5
74	Optical properties and structure of a new, low-loss, hybrid organic-inorganic host material for molecular dopants. , 1994, , .		4
75	Dispersion of linear and nonlinear refractive index in chalcogenide glass. , 2012, , .		4
76	Large core, multimode, chalcogenide glass fibre coupler by side-polishing. Optical and Quantum Electronics, 2013, 45, 961-967.	3.3	4
77	Potential for using mid-infrared light for non-invasive, early-detection of skin cancers in vivo. , 2013, , .		4
78	Numerical investigation of mid-infrared emission from Pr $$^{3+}$$ 3 + doped GeAsGaSe fibre. Optical and Quantum Electronics, 2014, 46, 593-602.	3.3	4
79	Mid-infrared (MIR) photonics: MIR passive and active fiberoptics chemical and biomedical, sensing and imaging. Proceedings of SPIE, 2016, , .	0.8	4
80	Internal examination of mid-infrared chalcogenide glass optical fiber preforms and fiber using near-infrared imaging [Invited]. Optical Materials Express, 2021, 11, 1353.	3.0	3
81	Mid-Infrared Molecular Sensing. Springer Handbooks, 2019, , 1585-1632.	0.6	3
82	<title>Cadmium selenide quantum dot doping of organic-inorganic hybrid materials derived by sol-gel processing</title>. , 1997, , .		3
83	M-type fiber for exploiting higher-order-modes dispersion for application in mid-IR supercontinuum generation. , 2016, , .		3
84	Cleavage of silicon-carbon bonds and relative rates of hydrolysis of ormosil precursors for optical materials. Advanced Materials for Optics and Electronics, 1994, 4, 285-291.	0.4	2
85	Crystallization in 70Ga₂S₃[.]30La₂S₃(mol%) Glasses as a Function of Oxide/Hydroxide Concentration. Journal of the American Ceramic Society, 2000, 83, 617-622.	3.8	2
86	Chalcogenide glass fibreoptics for new mid-infrared medical endoscopy. , 2012, , .		2
87	Numerical demonstration of 3â€“12Âµm supercontinuum generation in large-core step-index chalcogenide fibers pumped at 4.5Âµm. , 2013, , .		2
88	Future of Optical Glass Education. Optical Materials Express, 0, , .	3.0	2
89	<title>Structural changes during thermally induced polymerization of ormosil films from trimethoxysilylpropylmethacrylate and zirconium-n-propoxide modified with methacrylic acid</title>. , 2000, , .		1
90	Optical properties of As 2 S 3 and As 2 Se 3 glasses doped with Dy, Sm, and Mn. , 2001, , .		1

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91	Large core, single-mode glass-based waveguides for photonic integrated circuits. , 2006, , .		1
92	Femtosecond laser writing of buried waveguides in erbium^{III}-doped oxyfluoride glasses and nano-glass-ceramics. , 2008, , .		1
93	Non-linear chalcogenide glasses and technologies for the development of ultra-fast chip-scale optical devices. , 2008, , .		1
94	Mid-infrared fiberoptic devices and systems for in vivo medical diagnostics and surgery. , 2015, , .		1
95	Mid-Infrared (MIR) Glasses and Fibres for Medical Applications. , 2019, , .		1
96	Bright Mid-Infrared (MIR) Photoluminescence Sources and their Application in Imaging and Sensing. , 2020, , .		1
97	A study of MIR photoluminescence from Pr3+ doped chalcogenide fibers pumped at near-infrared wavelengths. , 2017, , .		1
98	Pulsed fluoride glass fiber laser with near 3 Âµm operating wavelength. , 2020, , .		1
99	Solubility and aggregation studies of copper(II) dodecanoate in organic solvents. Transition Metal Chemistry, 1985, 10, 212-214.	1.4	0
100	Er3+-doped ultratransparent oxyfluoride glass-ceramics for application in the 1.54 micron telecommunication window. , 2003, , .		0
101	Photonic integrated circuits based on novel glass waveguides and devices. , 2006, , .		0
102	Rare-earth doped transparent nano-glass-ceramics: a new generation of photonic integrated devices. Proceedings of SPIE, 2007, , .	0.8	0
103	Modification of chalcogenide glasses by femtosecond laser pulses for the fabrication of highly non-linear 3D photonic devices. , 2008, , .		0
104	Processing of chalcogenide glass by the femtosecond laser pulses for achieving highly non-linear photonic structures. , 2009, , .		0
105	Study of nonlinear optical properties of Er³⁺ - and Yb³⁺ -doped oxyfluoride glasses. , 2010, , .		0
106	Chalcogenide waveguides as a base for engineering broadband light sources in the mid-infrared. , 2011, , .		0
107	Third-order non-linear optical response in chalcogenide glasses: Measurement and evaluation. , 2013, , .		0
108	Photoluminescence of some chalcogenide glasses doped with rare-earth ions. , 2015, , .		0

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109	Mid-Infrared Supercontinuum Generation Spanning More Than 11 Î¼m in a Chalcogenide Step-Index Fiber. , 2015, , .		0
110	Mid-Infrared Photonics in Healthcare. , 2016, , .		0
111	Broadband terahertz spectroscopy of chalcogenide glass As<inf>30</inf>Se<inf>30</inf>Te<inf>40</inf>. , 2016, , .		0
112	Progress in biomedical mid-infrared hyperspectral imaging with fiber-based supercontinuum laser light. , 2019, , .		0
113	Influence of Thermo-Mechanical Mismatch when Nanoimprinting Anti-Reflective Structures onto Small-core Mid-IR Chalcogenide Fibers. , 2021, , .		0
114	Comparative study of infrared fiber laser models. , 2018, , .		0
115	Breaking Through the Wavelength Barrier: State-of-play on Rare-earth Ion Mid-infrared Fiber Lasers at 4-9 Âµm. , 2019, , .		0
116	Multicomponent Glass Optical Fibers for Mid-Infrared Invited Presentation. , 2021, , .		0