Ganapathy Senthil Murugan

List of Publications by Year
in descending order

125	3,149	136950	168389
papers	citations	32 h-index	53 g-index

128	128	128	2655
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optical fiber nanowires and microwires: fabrication and applications. Advances in Optics and Photonics, 2009, 1, 107.	25.5	311
2	Selective excitation of whispering gallery modes in a novel bottle microresonator. Optics Express, 2009, 17, 11916.	3.4	161
3	Optical manipulation of microspheres along a subwavelength optical wire. Optics Letters, 2007, 32, 3041.	3.3	144
4	Optical properties of transparent Li2Oâ€“Ga2O3â€“SiO2 glass-ceramics embedding Ni-doped nanocrystals. Applied Physics Letters, 2005, 86, 131903.	3.3	118
5	Hollow-bottle optical microresonators. Optics Express, 2011, 19, 20773.	3.4	117
6	TeO2â€“BaOâ€“SrOâ€“Nb2O5 glasses: a new glass system for waveguide devices applications. Journal of Non-Crystalline Solids, 2004, 341, 86-92.	3.1	96
7	Chalcogenide glass microspheres; their production, characterization and potential. Optics Express, 2007, 15, 17542.	3.4	84
8	Extraordinary evanescent field confinement waveguide sensor for mid-infrared trace gas spectroscopy. Light: Science and Applications, 2021, 10, 26.	16.6	80
9	Germanium Mid-Infrared Photonic Devices. Journal of Lightwave Technology, 2017, 35, 624-630.	4.6	76
10	Nonlinear-optic and ferroelectric behavior of lithium borateâ€“strontium bismuth tantalate glassâ€“ceramic composite. Applied Physics Letters, 2001, 78, 4019-4021.	3.3	75
11	Germanium-on-silicon waveguides operating at mid-infrared wavelengths up to 85 Î¼m. Optics Express, 2017, 25, 27431.	3.4	75
12	Whispering gallery mode spectra of channel waveguide coupled microspheres. Optics Express, 2008, 16, 11066.	3.4	71
13	Dielectric, linear and non-linear optical properties of lithium borateâ€“bismuth tungstate glasses and glass-ceramics. Journal of Non-Crystalline Solids, 2001, 279, 1-13.	3.1	67
14	Tellurite glasses for ultrabroadband fiber Raman amplifiers. Applied Physics Letters, 2005, 86, 161109.	3.3	61
15	Chalcogenide glass microsphere laser. Optics Express, 2010, 18, 26720.	3.4	59
16	Optical excitation and probing of whispering gallery modes in bottle microresonators: potential for all-fiber addâ€“drop filters. Optics Letters, 2010, 35, 1893.	3.3	57
17	Lithium borateâ€“strontium bismuth tantalate glass nanocomposite: a novel material for nonlinear optic and ferroelectric applications. Journal of Materials Chemistry, 2002, 12, 1426-1436.	6.7	56
18	Spectroscopic properties of a novel near-infrared tunable laser material. Journal of Luminescence, 2005, 113, 265-270.	3.1	56

#	Article	IF	Citations
19	Crystal growth, luminescent and lasing properties of the ytterbium doped Li6Y(BO3)3 compound. Optical Materials, 2005, 27, 1681-1685.	3.6	54
20	On-Chip Optical Gas Sensors Based on Group-IV Materials. ACS Photonics, 2020, 7, 2923-2940.	6.6	50
21	Raman spectroscopic studies of TeO2-BaO-SrO-Nb2O5 glasses: Structure-property correlations. Journal of Applied Physics, 2004, 96, 2437-2442.	2.5	47
22	Whispering gallery mode selection in optical bottle microresonators. Applied Physics Letters, 2012, 100, .	3.3	47
23	Packaged chalcogenide microsphere resonator with high Q-factor. Applied Physics Letters, 2013, 102, .	3.3	47
24	Temperature-assisted electrical poling of TeO2â€“Bi2O3â€“ZnO glasses for non-linear optical applications. Journal of Non-Crystalline Solids, 2004, 344, 158-166.	3.1	46
25	Continuous-wave and Q-switched Tm-doped KY(WO_4)_2 planar waveguide laser at 184 Âµm. Optics Express, 2011, 19, 1449.	3.4	46
26	Integrated Nd-doped borosilicate glass microsphere laser. Optics Letters, 2011, 36, 73.	3.3	45
27	Optical properties of Er3+ and Tm3+ ions in a tellurite glass. Journal of Applied Physics, 2005, 97, 043505.	2.5	43
28	Structural and physical properties of a novel TeO2â€“BaOâ€“SrOâ€“Ta2O5 glass system for photonic device applications. Journal of Non-Crystalline Solids, 2005, 351, 364-371.	3.1	41
29	Packaged, high-Q, microsphere-resonator-based addâ€“drop filter. Optics Letters, 2014, 39, 5208.	3.3	40
30	Spectral cleaning and output modal transformations in whispering-gallery-mode microresonators. Journal of the Optical Society of America B: Optical Physics, 2016, 33, 1963.	2.1	39
31	Raman characteristics and nonlinear optical properties of tellurite and phosphotellurite glasses containing heavy metal oxides with ultrabroad Raman bands. Journal of Applied Physics, 2006, 100, 023107.	2.5	37
32	Optical quality ZnSe films and low loss waveguides on Si substrates for mid-infrared applications. Optical Materials Express, 2017, 7, 712.	3.0	34
33	Nanocrystallization of ferroelectric bismuth tungstate in lithium borate glass matrix. Journal of Materials Science Letters, 1999, 18, 1687-1690.	0.5	28
34	Structural, dielectric and optical properties of lithium borateâ€“bismuth tungstate glass-ceramics. Materials Research Bulletin, 1999, 34, 2201-2213.	5.2	28
35	Spectroscopic properties of Tm3+ ions in PbOâ€“PbF2â€“Bi2O3â€“Ga2O3 glasses for S-band optical amplifications. Journal of Applied Physics, 2004, 96, 7212-7218.	2.5	28
36	Chalcogenide Microsphere Fabricated From Fiber Tapers Using Contact With a High-Temperature Ceramic Surface. IEEE Photonics Technology Letters, 2012, 24, 1103-1105.	2.5	28

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37	Optical Propulsion of Individual and Clustered Microspheres along Sub-Micron Optical Wires. Japanese Journal of Applied Physics, 2008, 47, 6716-6718.	1.5	27
38	Mirrorless buried waveguide laser in monoclinic double tungstates fabricated by a novel combination of ion milling and liquid phase epitaxy. Optics Express, 2010, 18, 26937.	3.4	27
39	Second-harmonic generation in transparent surface crystallized glasses in the BaOâ€“B2O3â€“TeO2 system. Applied Physics Letters, 2004, 85, 3405-3407.	3.3	26
40	High index contrast Er:Ta2O5 waveguide amplifier on oxidised silicon. Optics Communications, 2012, 285, 124-127.	2.1	25
41	Chalcogenide glass waveguides with paper-based fluidics for mid-infrared absorption spectroscopy. Optics Letters, 2018, 43, 2913.	3.3	24
42	Characterization of lithium borateâ€“bismuth tungstate glasses and glass-ceramics by impedance spectroscopy. Solid State Ionics, 2001, 139, 105-112.	2.7	22
43	Title is missing!. , 2002, 8, 37-48.		22
44	Position-dependent coupling between a channel waveguide and a distorted microsphere resonator. Journal of Applied Physics, 2010, 107, 053105.	2.5	22
45	Phospho-tellurite glasses containing heavy metal oxides for ultrabroad band fiber Raman amplifiers. Applied Physics Letters, 2005, 86, 221109.	3.3	21
46	Fabrication and characterization of high-contrast mid-infrared GeTe_4 channel waveguides. Optics Letters, 2015, 40, 2016.	3.3	21
47	Crystal growth, stability and photoluminescence studies of tetra aqua diglycine magnesium (II) hexa aqua magnesium (II) bis sulfate crystal. Physica B: Condensed Matter, 2011, 406, 1169-1172.	2.7	19
48	Embedded Optical Microfiber Coil Resonator With Enhanced High-Q. IEEE Photonics Technology Letters, 2010, , .	2.5	18
49	Fabrication of Y-Splitters and Mach–Zehnder Structures on (Yb,Nb):RbTiOPO<inline-formula><tex-math> $_{f 4}$</tex-math></inline-formula>/RbTiOPO<inline-formula><tex-math>$_{f 4}$</tex-math></inline-formula> Epitaxial Layers by Reactive Ion Etching. Journal of Lightwave Technology, 2015, 33, 1863-1871.	4.6	18
50	Growth and characterization of metal-organic crystal: Tetra thiourea cobalt chloride (TTCoC). Journal of Crystal Growth, 2009, 311, 585-588.	1.5	17
51	Optical microdiscus resonators by flattening microspheres. Applied Physics Letters, 2012, 101, 071106.	3.3	17
52	Spectroscopy, Modeling, and Performance of Erbium-Doped Ta$_{2}$O$_{5}$ Waveguide Amplifiers. Journal of Lightwave Technology, 2012, 30, 1455-1462.	4.6	17
53	Polarization effects in optical microresonators. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 705.	2.1	17
54	Anomalous Dielectric Behaviour in Melt Quenched Lithium Borate Glasses. Ferroelectrics, Letters Section, 1999, 26, 1-16.	1.0	16

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55	Optical racetrack ring-resonator based on two U-bent microfibers. Applied Physics Letters, 2011, 98, 021109.	3.3	16
56	A transparent waveguide chip for versatile total internal reflection fluorescence-based microscopy and nanoscopy. Communications Materials, 2021, 2, .	6.9	15
57	Electrically Microâ€Polarized Amorphous Sodoâ€Niobate Film Competing with Crystalline Lithium Niobate Secondâ€Order Optical Response. Advanced Optical Materials, 2020, 8, 2000202.	7.3	14
58	Lead silicate glass microsphere resonators with absorption-limited Q. Applied Physics Letters, 2011, 98, .	3.3	13
59	Waveguide lasers in ytterbium-doped tantalum pentoxide on silicon. Optics Letters, 2015, 40, 2549.	3.3	13
60	Chip-Based Resonance Raman Spectroscopy Using Tantalum Pentoxide Waveguides. IEEE Photonics Technology Letters, 2019, 31, 1127-1130.	2.5	12
61	Temperature dependence of whispering gallery modes of quantum dot-doped microbottle resonators. Journal of Luminescence, 2020, 221, 117050.	3.1	12
62	Design of rare-earth-doped microbottle lasers. Optics Express, 2018, 26, 26339.	3.4	12
63	High-Q Bismuth-Silicate Nonlinear Glass Microsphere Resonators. IEEE Photonics Journal, 2012, 4, 1013-1020.	2.0	10
64	Fano Resonances and Photoluminescence in Self-Assembled High-Quality-Factor Microbottle Resonators. IEEE Photonics Technology Letters, 2019, 31, 226-229.	2.5	10
65	Prediction of Neonatal Respiratory Distress Biomarker Concentration by Application of Machine Learning to Mid-Infrared Spectra. Sensors, 2022, 22, 1744.	3.8	9
66	High-contrast GeTe4waveguides for mid-infrared biomedical sensing applications. , 2014, , .		8
67	Integrated optical waveguides and inertial focussing microfluidics in silica for microflow cytometry applications. Journal of Micromechanics and Microengineering, 2016, 26, 105004.	2.6	7
68	All-Optical Multi-Level Phase Quantization Based on Phase-Sensitive Amplification With Low-Order Harmonics. Journal of Lightwave Technology, 2018, 36, 5833-5840.	4.6	7
69	Tunable â€œShallowâ€•Microbottle Resonators. IEEE Photonics Technology Letters, 2019, 31, 849-852.	2.5	7
70	Broadband 2â€‰â€‰Ã—â€‰â€‰2 multimode interference coupler for mid-infrared wavelengths. Optics Letters, 2021, 46, 5300.	3.3	7
71	Efficient excitation and phase matching of fiber-coupled degenerate whispering gallery modes. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 2452.	2.1	7
72	A general model for taper coupling of multiple modes of whispering gallery resonators and application to analysis of coupling-induced Fano interference in a single cavity. Optics Express, 2019, 27, 25493.	3.4	7

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73	Ba3ZnTa2â^'xNbxO9 and Ba3MgTa2â^'xNbxO9: synthesis, structural and dielectric studies. Materials Research Bulletin, 2000, 35, 2423-2430.	5.2	6
74	KY0.58Gd0.22Lu0.17Tm0.03(WO4)2 buried rib waveguide lasers. Optical Materials, 2011, 34, 475-480.	3.6	6
75	Spectroscopy of ytterbium-doped tantalum pentoxide rib waveguides on silicon. Optical Materials Express, 2014, 4, 1505.	3.0	6
76	Effect of sodium addition and thermal annealing on second-order optical nonlinearity in thermally poled amorphous Ta2O5 thin films. Journal of Applied Physics, 2019, 125, .	2.5	6
77	Spectroscopy of thulium-doped tantalum pentoxide waveguides on silicon. Optical Materials Express, 2020, 10, 2201.	3.0	6
78	Manipulating Spheres That Sink: Assembly of Micrometer Sized Glass Spheres for Optical Coupling. Langmuir, 2009, 25, 1872-1880.	3.5	5
79	Model of structural damage to carbon fibre composites due to thermo-electric effects of lightning strikes. , 2010, , .		5
80	Microtaper fiber excitation effects in bottle microresonators. , 2013, , .		5
81	Broadly tunable solid microbottle resonator. , 2016, , .		5
82	Pyroelectric, Ferroelectric and Optical Properties of Glass Nanocomposite: Lithium Borate–Bismuth Tungstate. Ferroelectrics, 2002, 266, 259-275.	0.6	4
83	Demonstration of novel high-Q fibre WGM “Bottle” microresonators. , 2008, , .		4
84	Study of waveguide background at visible wavelengths for on-chip nanoscopy. Optics Express, 2021, 29, 20735.	3.4	4
85	Effect of coating few-layer WS₂ on the Raman spectra and whispering gallery modes of a microbottle resonator. Journal of Optics (United Kingdom), 2020, 22, 105003.	2.2	4
86	Experimental Demonstration of a Bottle Microresonator. , 2009, , .		3
87	GeTe4 channel waveguides for the mid-wave infrared spectral band. , 2014, , .		2
88	An optical fiber optofluidic particle aspirator. Applied Physics Letters, 2014, 105, .	3.3	2
89	Hybrid plasmonic bottle microresonators. , 2014, , .		2
90	Polarisation effects in optical microresonators. , 2015, , .		2

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91	Free-standing tantalum pentoxide waveguides for gas sensing in the mid-infrared. Optical Materials Express, 2021, 11, 3111.	3.0	2
92	Yb3+-doped Silica WGM Milled Microrod laser. , 2015, , .		2
93	Second harmonic generation in thermally poled Bi 2 O 3 -ZnO-TeO 2 glasses. , 2003, 4987, 292.		1
94	Characterization of <010> directed ammonium malate single crystals grown by Sankaranarayananâ€“Ramasamy method. Journal of Crystal Growth, 2011, 328, 58-61.	1.5	1
95	Optical Microdiscus Resonators. , 2012, , .		1
96	Robust Mode-Selection in Optical Bottle Microresonators. , 2012, , .		1
97	Whispering gallery modes in semiconductor optical fibres and optical bottle microresonators. , 2013, , .		1
98	High-Q plasmonic bottle microresonator. , 2014, , .		1
99	Optical microstub resonator lasers. Proceedings of SPIE, 2014, , .	0.8	1
100	Er-doped tellurite waveguides for power amplifier applications. Proceedings of SPIE, 2014, , .	0.8	1
101	Mode-selective spectrally-cleaned-up microbottle resonator laser. , 2016, , .		1
102	Modelling of a miniature mid-IR thermo-optic spectrometer on chip based on a GaAs/In0.49Ga0.51P waveguide platform. Optics Communications, 2021, 495, 127044.	2.1	1
103	All-optical simultaneous amplitude and phase regeneration for MPSK signal with ASE noise based on two-wave PSA. Optics Communications, 2021, 499, 127281.	2.1	1
104	Fiber Taper-coupled Micro Bottle Lasers. , 2016, , .		1
105	Etchless pedestal chalcogenide waveguide platform for long-wave IR applications. Optical Materials Express, 2022, 12, 1154.	3.0	1
106	Photonic Nanojet Generation Using Integrated Silicon Photonic Chip with Hemispherical Structures. Photonics, 2021, 8, 586.	2.0	1
107	Q-factor and waveguide-sphere separation effects in waveguide-coupled microsphere resonators. Proceedings of SPIE, 2008, , .	0.8	0
108	Whispering gallery modes in bottle microresonators. , 2009, , .		0

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109	Optical Excitation and Probing of Bottle Microresonators. , 2010, , .		0
110	Novel fiber bottle microresonator add-drop filters. Proceedings of SPIE, 2010, , .	0.8	0
111	LiNbO3 Whispering-Gallery Mode Micro-Resonator. , 2011, , .		0
112	Optical characterization of LiNbO<inf>3</inf> whispering gallery mode micro-resonators fabricated by surface tension reshaping. , 2011, , .		0
113	Experimental observation of whispering gallery modes in novel silicon microcylindrical resonators. , 2011, , .		0
114	Microgrooved Bottle Microresonators. , 2014, , .		0
115	Spectroscopy of high index contrast Yb:Ta₂O₅ waveguides for lasing applications. Journal of Physics: Conference Series, 2015, 619, 012031.	0.4	0
116	Chalcogenide waveguides for mid-infrared biomedical sensing applications. , 2015, , .		0
117	Microrod resonator laser with versatile pumping configurations. , 2015, , .		0
118	Microgrooved plasmonic bottle microresonator. Journal of Physics: Conference Series, 2015, 619, 012058.	0.4	0
119	Mid-infrared GeTe4waveguides on silicon with a ZnSe isolation layer. , 2015, , .		0
120	Numerical investigation of plasmonic photonic hybrid whispering gallery modes. , 2017, , .		0
121	Self-assembled microbottle resonator as photo-stable temperature sensor. AIP Conference Proceedings, 2020, , .	0.4	0
122	Optical Quality ZnSe Films on Silicon for Mid-IR Waveguides. , 2016, , .		0
123	Self-assembled High-Q WGM Microbottle Resonator using Organic Polymer for Low Threshold Microlasing. , 2016, , .		0
124	Group IV mid-infrared devices and circuits. , 2018, , .		0
125	Mid-infrared waveguide evanescent wave sensing (Conference Presentation). , 2019, , .		0