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	Prediction of Neonatal Respiratory Distress Biomarker Concentration by Application of Machine Learning to Mid-Infrared Spectra. Sensors, 2022, 22, 1744.	3.8	9
2	Etchless pedestal chalcogenide waveguide platform for long-wave IR applications. Optical Materials Express, 2022, 12, 1154.	3.0	1
3	Extraordinary evanescent field confinement waveguide sensor for mid-infrared trace gas spectroscopy. Light: Science and Applications, 2021, 10, 26.	16.6	80
4	Study of waveguide background at visible wavelengths for on-chip nanoscopy. Optics Express, 2021, 29, 20735.	3.4	4
5	A transparent waveguide chip for versatile total internal reflection fluorescence-based microscopy and nanoscopy. Communications Materials, 2021, 2, .	6.9	15
6	Free-standing tantalum pentoxide waveguides for gas sensing in the mid-infrared. Optical Materials Express, 2021, 11, 3111.	3.0	2
7	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
8	Broadband 2â€‰â€‰Ã—â€‰â€‰2 multimode interference coupler for mid-infrared wavelengths. Optics Letters, 2021, 46, 5300.	3.3	7
9	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
10	Photonic Nanojet Generation Using Integrated Silicon Photonic Chip with Hemispherical Structures. Photonics, 2021, 8, 586.	2.0	1
11	Self-assembled microbottle resonator as photo-stable temperature sensor. AIP Conference Proceedings, 2020, , .	0.4	0
12	On-Chip Optical Gas Sensors Based on Group-IV Materials. ACS Photonics, 2020, 7, 2923-2940.	6.6	50
13	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
14	Temperature dependence of whispering gallery modes of quantum dot-doped microbottle resonators. Journal of Luminescence, 2020, 221, 117050.	3.1	12
15	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
16	Spectroscopy of thulium-doped tantalum pentoxide waveguides on silicon. Optical Materials Express, 2020, 10, 2201.	3.0	6
17	Tunable â€œShallowâ€•Microbottle Resonators. IEEE Photonics Technology Letters, 2019, 31, 849-852.	2.5	7
18	Fano Resonances and Photoluminescence in Self-Assembled High-Quality-Factor Microbottle Resonators. IEEE Photonics Technology Letters, 2019, 31, 226-229.	2.5	10

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19	Chip-Based Resonance Raman Spectroscopy Using Tantalum Pentoxide Waveguides. IEEE Photonics Technology Letters, 2019, 31, 1127-1130.	2.5	12
20	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
21	Polarization effects in optical microresonators. Journal of the Optical Society of America B: Optical Physics, 2019, 36, 705.	2.1	17
22	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
23	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
24	Mid-infrared waveguide evanescent wave sensing (Conference Presentation). , 2019, , .		0
25	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
26	Chalcogenide glass waveguides with paper-based fluidics for mid-infrared absorption spectroscopy. Optics Letters, 2018, 43, 2913.	3.3	24
27	Design of rare-earth-doped microbottle lasers. Optics Express, 2018, 26, 26339.	3.4	12
28	Group IV mid-infrared devices and circuits. , 2018, , .		0
29	Germanium Mid-Infrared Photonic Devices. Journal of Lightwave Technology, 2017, 35, 624-630.	4.6	76
30	Optical quality ZnSe films and low loss waveguides on Si substrates for mid-infrared applications. Optical Materials Express, 2017, 7, 712.	3.0	34
31	Germanium-on-silicon waveguides operating at mid-infrared wavelengths up to 85 Î¼m. Optics Express, 2017, 25, 27431.	3.4	75
32	Numerical investigation of plasmonic photonic hybrid whispering gallery modes. , 2017, , .		0
33	Broadly tunable solid microbottle resonator. , 2016, , .		5
34	Integrated optical waveguides and inertial focussing microfluidics in silica for microflow cytometry applications. Journal of Micromechanics and Microengineering, 2016, 26, 105004.	2.6	7
35	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
36	Mode-selective spectrally-cleaned-up microbottle resonator laser. , 2016, , .		1

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37	Optical Quality ZnSe Films on Silicon for Mid-IR Waveguides. , 2016, , .		0
38	Self-assembled High-Q WGM Microbottle Resonator using Organic Polymer for Low Threshold Microlasing. , 2016, , .		0
39	Fiber Taper-coupled Micro Bottle Lasers. , 2016, , .		1
40	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
41	Spectroscopy of high index contrast Yb:Ta₂O₅ waveguides for lasing applications. Journal of Physics: Conference Series, 2015, 619, 012031.	0.4	0
42	Chalcogenide waveguides for mid-infrared biomedical sensing applications. , 2015, , .		0
43	Microrod resonator laser with versatile pumping configurations. , 2015, , .		0
44	Polarisation effects in optical microresonators. , 2015, , .		2
45	Microgrooved plasmonic bottle microresonator. Journal of Physics: Conference Series, 2015, 619, 012058.	0.4	0
46	Mid-infrared GeTe4waveguides on silicon with a ZnSe isolation layer. , 2015, , .		0
47	Waveguide lasers in ytterbium-doped tantalum pentoxide on silicon. Optics Letters, 2015, 40, 2549.	3.3	13
48	Fabrication and characterization of high-contrast mid-infrared GeTe_4 channel waveguides. Optics Letters, 2015, 40, 2016.	3.3	21
49	Yb3+-doped Silica WGM Milled Microrod laser. , 2015, , .		2
50	High-contrast GeTe4waveguides for mid-infrared biomedical sensing applications. , 2014, , .		8
51	GeTe4 channel waveguides for the mid-wave infrared spectral band. , 2014, , .		2
52	Packaged, high-Q, microsphere-resonator-based addâ€“drop filter. Optics Letters, 2014, 39, 5208.	3.3	40
53	Spectroscopy of ytterbium-doped tantalum pentoxide rib waveguides on silicon. Optical Materials Express, 2014, 4, 1505.	3.0	6
54	High-Q plasmonic bottle microresonator. , 2014, , .		1

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55	Optical microstub resonator lasers. Proceedings of SPIE, 2014, , .	0.8	1
56	An optical fiber optofluidic particle aspirator. Applied Physics Letters, 2014, 105, .	3.3	2
57	Hybrid plasmonic bottle microresonators. , 2014, , .		2
58	Microgrooved Bottle Microresonators. , 2014, , .		0
59	Er-doped tellurite waveguides for power amplifier applications. Proceedings of SPIE, 2014, , .	0.8	1
60	Whispering gallery modes in semiconductor optical fibres and optical bottle microresonators. , 2013, , .		1
61	Microtaper fiber excitation effects in bottle microresonators. , 2013, , .		5
62	Packaged chalcogenide microsphere resonator with high Q-factor. Applied Physics Letters, 2013, 102, .	3.3	47
63	Optical microdiscus resonators by flattening microspheres. Applied Physics Letters, 2012, 101, 071106.	3.3	17
64	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
65	Whispering gallery mode selection in optical bottle microresonators. Applied Physics Letters, 2012, 100, .	3.3	47
66	Optical Microdiscus Resonators. , 2012, , .		1
67	Robust Mode-Selection in Optical Bottle Microresonators. , 2012, , .		1
68	High-Q Bismuth-Silicate Nonlinear Glass Microsphere Resonators. IEEE Photonics Journal, 2012, 4, 1013-1020.	2.0	10
69	Spectroscopy, Modeling, and Performance of Erbium-Doped Ta$_{2}$O$_{5}$ Waveguide Amplifiers. Journal of Lightwave Technology, 2012, 30, 1455-1462.	4.6	17
70	High index contrast Er:Ta2O5 waveguide amplifier on oxidised silicon. Optics Communications, 2012, 285, 124-127.	2.1	25
71	LiNbO3 Whispering-Gallery Mode Micro-Resonator. , 2011, , .		0
72	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

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73	Hollow-bottle optical microresonators. Optics Express, 2011, 19, 20773.	3.4	117
74	Integrated Nd-doped borosilicate glass microsphere laser. Optics Letters, 2011, 36, 73.	3.3	45
75	KY0.58Gd0.22Lu0.17Tm0.03(WO4)2 buried rib waveguide lasers. Optical Materials, 2011, 34, 475-480.	3.6	6
76	Characterization of <010> directed ammonium malate single crystals grown by Sankaranarayananâ€“Ramasamy method. Journal of Crystal Growth, 2011, 328, 58-61.	1.5	1
77	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
78	Optical characterization of LiNbO<inf>3</inf> whispering gallery mode micro-resonators fabricated by surface tension reshaping. , 2011, , .		0
79	Optical racetrack ring-resonator based on two U-bent microfibers. Applied Physics Letters, 2011, 98, 021109.	3.3	16
80	Lead silicate glass microsphere resonators with absorption-limited Q. Applied Physics Letters, 2011, 98, .	3.3	13
81	Experimental observation of whispering gallery modes in novel silicon microcylindrical resonators. , 2011, , .		0
82	Model of structural damage to carbon fibre composites due to thermo-electric effects of lightning strikes. , 2010, , .		5
83	Optical Excitation and Probing of Bottle Microresonators. , 2010, , .		0
84	Position-dependent coupling between a channel waveguide and a distorted microsphere resonator. Journal of Applied Physics, 2010, 107, 053105.	2.5	22
85	Novel fiber bottle microresonator add-drop filters. Proceedings of SPIE, 2010, , .	0.8	0
86	Embedded Optical Microfiber Coil Resonator With Enhanced High-Q. IEEE Photonics Technology Letters, 2010, , .	2.5	18
87	Chalcogenide glass microsphere laser. Optics Express, 2010, 18, 26720.	3.4	59
88	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
89	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
90	Growth and characterization of metal-organic crystal: Tetra thiourea cobalt chloride (TTCoC). Journal of Crystal Growth, 2009, 311, 585-588.	1.5	17

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91	Manipulating Spheres That Sink: Assembly of Micrometer Sized Glass Spheres for Optical Coupling. Langmuir, 2009, 25, 1872-1880.	3.5	5
92	Selective excitation of whispering gallery modes in a novel bottle microresonator. Optics Express, 2009, 17, 11916.	3.4	161
93	Optical fiber nanowires and microwires: fabrication and applications. Advances in Optics and Photonics, 2009, 1, 107.	25.5	311
94	Whispering gallery modes in bottle microresonators. , 2009, , .		0
95	Experimental Demonstration of a Bottle Microresonator. , 2009, , .		3
96	Q-factor and waveguide-sphere separation effects in waveguide-coupled microsphere resonators. Proceedings of SPIE, 2008, , .	0.8	0
97	Whispering gallery mode spectra of channel waveguide coupled microspheres. Optics Express, 2008, 16, 11066.	3.4	71
98	Demonstration of novel high-Q fibre WGM “Bottle” microresonators. , 2008, , .		4
99	Optical Propulsion of Individual and Clustered Microspheres along Sub-Micron Optical Wires. Japanese Journal of Applied Physics, 2008, 47, 6716-6718.	1.5	27
100	Optical manipulation of microspheres along a subwavelength optical wire. Optics Letters, 2007, 32, 3041.	3.3	144
101	Chalcogenide glass microspheres; their production, characterization and potential. Optics Express, 2007, 15, 17542.	3.4	84
102	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
103	Spectroscopic properties of a novel near-infrared tunable laser material. Journal of Luminescence, 2005, 113, 265-270.	3.1	56
104	Crystal growth, luminescent and lasing properties of the ytterbium doped Li6Y(BO3)3 compound. Optical Materials, 2005, 27, 1681-1685.	3.6	54
105	Optical properties of transparent Li2Oâ€“Ga2O3â€“SiO2 glass-ceramics embedding Ni-doped nanocrystals. Applied Physics Letters, 2005, 86, 131903.	3.3	118
106	Tellurite glasses for ultrabroadband fiber Raman amplifiers. Applied Physics Letters, 2005, 86, 161109.	3.3	61
107	Optical properties of Er3+ and Tm3+ ions in a tellurite glass. Journal of Applied Physics, 2005, 97, 043505.	2.5	43
108	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

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109	Phospho-tellurite glasses containing heavy metal oxides for ultrabroad band fiber Raman amplifiers. Applied Physics Letters, 2005, 86, 221109.	3.3	21
110	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
111	Raman spectroscopic studies of TeO2-BaO-SrO-Nb2O5 glasses: Structure-property correlations. Journal of Applied Physics, 2004, 96, 2437-2442.	2.5	47
112	Second-harmonic generation in transparent surface crystallized glasses in the BaOâ€“B2O3â€“TeO2 system. Applied Physics Letters, 2004, 85, 3405-3407.	3.3	26
113	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
114	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
115	Second harmonic generation in thermally poled Bi 2 O 3 -ZnO-TeO 2 glasses. , 2003, 4987, 292.		1
116	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
117	Pyroelectric, Ferroelectric and Optical Properties of Glass Nanocomposite: Lithium Borate–Bismuth Tungstate. Ferroelectrics, 2002, 266, 259-275.	0.6	4
118	Title is missing!. , 2002, 8, 37-48.		22
119	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
120	Characterization of lithium borateâ€“bismuth tungstate glasses and glass-ceramics by impedance spectroscopy. Solid State Ionics, 2001, 139, 105-112.	2.7	22
121	Nonlinear-optic and ferroelectric behavior of lithium borateâ€“strontium bismuth tantalate glassâ€“ceramic composite. Applied Physics Letters, 2001, 78, 4019-4021.	3.3	75
122	Ba3ZnTa2â^'xNbxO9 and Ba3MgTa2â^'xNbxO9: synthesis, structural and dielectric studies. Materials Research Bulletin, 2000, 35, 2423-2430.	5.2	6
123	Nanocrystallization of ferroelectric bismuth tungstate in lithium borate glass matrix. Journal of Materials Science Letters, 1999, 18, 1687-1690.	0.5	28
124	Structural, dielectric and optical properties of lithium borateâ€“bismuth tungstate glass-ceramics. Materials Research Bulletin, 1999, 34, 2201-2213.	5.2	28
125	Anomalous Dielectric Behaviour in Melt Quenched Lithium Borate Glasses. Ferroelectrics, Letters Section, 1999, 26, 1-16.	1.0	16