Alexander B Stilgoe

List of Publications by Year
in descending order

34 papers	2,216 citations	430874 18 h-index	414414 32 g-index
34 all docs	34 docs citations	34 times ranked	2148 citing authors

#	Article	IF	Citations
1	Controlled transfer of transverse orbital angular momentum to optically trapped birefringent microparticles. Nature Photonics, 2022, 16, 346-351.	31.4	28
2	Deep learning in lightâ€“matter interactions. Nanophotonics, 2022, 11, 3189-3214.	6.0	10
3	Ultrafast viscosity measurement with ballistic optical tweezers. Nature Photonics, 2021, 15, 386-392.	31.4	25
4	Enhanced Signal-to-Noise and Fast Calibration of Optical Tweezers Using Single Trapping Events. Micromachines, 2021, 12, 570.	2.9	2
5	Wave characterisation and aberration correction using hybrid direct search. Journal of Optics (United Kingdom), 2021, 23, 085602.	2.2	3
6	Orientation of swimming cells with annular beam optical tweezers. Optics Communications, 2020, 459, 124864.	2.1	22
7	Optical Force Measurements Illuminate Dynamics of Escherichia coli in Viscous Media. Frontiers in Physics, 2020, 8, .	2.1	3
8	Strong Transient Flows Generated by Thermoplasmonic Bubble Nucleation. ACS Nano, 2020, 14, 17468-17475.	14.6	8
9	Machine learning reveals complex behaviours in optically trapped particles. Machine Learning: Science and Technology, 2020, 1, 045009.	5.0	17
10	Swimming force and behavior of optically trapped micro-organisms. Optica, 2020, 7, 989.	9.3	21
11	Optical trapping <i>in vivo</i>: theory, practice, and applications. Nanophotonics, 2019, 8, 1023-1040.	6.0	91
12	Machine learning wall effects of eccentric spheres for convenient computation. Physical Review E, 2019, 99, 043304.	2.1	3
13	Measuring local properties inside a cellâ€mimicking structure using rotating optical tweezers. Journal of Biophotonics, 2019, 12, e201900022.	2.3	13
14	High-speed transverse and axial optical force measurements using amplitude filter masks. Optics Express, 2019, 27, 10034.	3.4	9
15	Calibration of force detection for arbitrarily shaped particles in optical tweezers. Scientific Reports, 2018, 8, 10798.	3.3	24
16	Theory and practice of simulation of optical tweezers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 195, 66-75.	2.3	43
17	Optical trapping of otoliths drives vestibular behaviours in larval zebrafish. Nature Communications, 2017, 8, 630.	12.8	82
18	Active rotational and translational microrheology beyond the linear spring regime. Physical Review E, 2017, 95, 042608.	2.1	11

#	Article	IF	Citations
19	Roadmap on structured light. Journal of Optics (United Kingdom), 2017, 19, 013001.	2.2	888
20	Ultrasensitive rotating photonic probes for complex biological systems. Optica, 2017, 4, 1103.	9.3	21
21	An interpretation and guide to single-pass beam shaping methods using SLMs and DMDs. Journal of Optics (United Kingdom), 2016, 18, 065609.	2.2	17
22	Energy, momentum and propagation of non-paraxial high-order Gaussian beams in the presence of an aperture. Journal of Optics (United Kingdom), 2015, 17, 125601.	2.2	12
23	Escape forces and trajectories in optical tweezers and their effect on calibration. Optics Express, 2015, 23, 24317.	3.4	12
24	Enhanced optical trapping via structured scattering. Nature Photonics, 2015, 9, 669-673.	31.4	73
25	Optical tweezers: Theory and modelling. Journal of Quantitative Spectroscopy and Radiative Transfer, 2014, 146, 59-80.	2.3	83
26	Determination of motility forces on isolated chromosomes with laser tweezers. Scientific Reports, 2014, 4, 6866.	3.3	19
27	Calibration of nonspherical particles in optical tweezers using only position measurement. Optics Letters, 2013, 38, 1244.	3.3	19
28	Equilibrium orientations and positions of non-spherical particles in optical traps. Optics Express, 2012, 20, 12987.	3.4	45
29	Design of Optically Driven Microrotors. , 2012, , 277-306.		2
30	Thermodynamics of optical tweezers. , 2011, , .		0
31	T-matrix method for modelling optical tweezers. Journal of Modern Optics, 2011, 58, 528-544.	1.3	74
32	Angular momentum of a strongly focused Gaussian beam. Journal of Optics, 2008, 10, 115005.	1.5	134
33	The effect of Mie resonances on trapping in optical tweezers. Optics Express, 2008, 16, 15039.	3.4	85
34	Optical tweezers computational toolbox. Journal of Optics, 2007, 9, S196-S203.	1.5	317