Jan Jezek

List of Publications by Year
in descending order

87 papers	1,371 citations	304602 22 h-index	345118 36 g-index
88 all docs	88 docs citations	88 times ranked	2092 citing authors

#	Article	IF	Citations
1	Reactive Oxygen Species and Mitochondrial Dynamics: The Yin and Yang of Mitochondrial Dysfunction and Cancer Progression. Antioxidants, 2018, 7, 13.	2.2	325
2	Theoretical comparison of optical traps created by standing wave and single beam. Optics Communications, 2003, 220, 401-412.	1.0	84
3	Following the Mechanisms of Bacteriostatic versus Bactericidal Action Using Raman Spectroscopy. Molecules, 2013, 18, 13188-13199.	1.7	78
4	Rapid identification of staphylococci by Raman spectroscopy. Scientific Reports, 2017, 7, 14846.	1.6	57
5	H₂O₂-Activated Mitochondrial Phospholipase iPLA₂Î³ Prevents Lipotoxic Oxidative Stress in Synergy with UCP2, Amplifies Signaling<i>via</i>G-Proteinâ€"Coupled Receptor GPR40, and Regulates Insulin Secretion in Pancreatic Î²-Cells. Antioxidants and Redox Signaling, 2015, 23, 958-972.	2.5	45
6	Formation of long and thin polymer fiber using nondiffracting beam. Optics Express, 2006, 14, 8506.	1.7	44
7	Raman microspectroscopy of algal lipid bodies: Î²-carotene quantification. Journal of Applied Phycology, 2012, 24, 541-546.	1.5	44
8	Candida parapsilosis Biofilm Identification by Raman Spectroscopy. International Journal of Molecular Sciences, 2014, 15, 23924-23935.	1.8	43
9	Optical trapping of microalgae at 735â€"1064 nm: Photodamage assessment. Journal of Photochemistry and Photobiology B: Biology, 2013, 121, 27-31.	1.7	40
10	Wavelength-Dependent Optical Force Aggregation of Gold Nanorods for SERS in a Microfluidic Chip. Journal of Physical Chemistry C, 2019, 123, 5608-5615.	1.5	38
11	Microfluidic Cultivation and Laser Tweezers Raman Spectroscopy of E. coli under Antibiotic Stress. Sensors, 2018, 18, 1623.	2.1	34
12	Influence of Culture Media on Microbial Fingerprints Using Raman Spectroscopy. Sensors, 2015, 15, 29635-29647.	2.1	32
13	Effects of Infrared Optical Trapping on Saccharomyces cerevisiae in a Microfluidic System. Sensors, 2017, 17, 2640.	2.1	30
14	Enhancement of the â€˜tractor-beamâ€™ pulling force on an optically bound structure. Light: Science and Applications, 2018, 7, 17135-17135.	7.7	29
15	Cyclin C: The Story of a Non-Cycling Cyclin. Biology, 2019, 8, 3.	1.3	28
16	Sequence anatomy of mitochondrial anion carriers. FEBS Letters, 2003, 534, 15-25.	1.3	27
17	Spectral tuning of lasing emission from optofluidic droplet microlasers using optical stretching. Optics Express, 2013, 21, 21380.	1.7	27
18	Application of laser-induced breakdown spectroscopy to the analysis of algal biomass for industrial biotechnology. Spectrochimica Acta, Part B: Atomic Spectroscopy, 2012, 74-75, 169-176.	1.5	26

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19	Quantitative Raman Spectroscopy Analysis of Polyhydroxyalkanoates Produced by Cupriavidus necator H16. Sensors, 2016, 16, 1808.	2.1	24
20	Stochastic dynamics of optically bound matter levitated in vacuum. Optica, 2021, 8, 220.	4.8	24
21	Behaviour of an optically trapped probe approaching a dielectric interface. Journal of Modern Optics, 2003, 50, 1615-1625.	0.6	23
22	Optical manipulation of aerosol droplets using a holographic dual and single beam trap. Optics Letters, 2013, 38, 4601.	1.7	22
23	The Impact of Mitochondrial Fission-Stimulated ROS Production on Pro-Apoptotic Chemotherapy. Biology, 2021, 10, 33.	1.3	22
24	Controlled Oil/Water Partitioning of Hydrophobic Substrates Extending the Bioanalytical Applications of Droplet-Based Microfluidics. Analytical Chemistry, 2019, 91, 10008-10015.	3.2	20
25	Differentiation between <i>Staphylococcus aureus</i> and <i>Staphylococcus epidermidis</i> strains using Raman spectroscopy. Future Microbiology, 2017, 12, 881-890.	1.0	19
26	Aglycemia keeps mitochondrial oxidative phosphorylation under hypoxic conditions in HepG2 cells. Journal of Bioenergetics and Biomembranes, 2015, 47, 467-476.	1.0	18
27	Raman spectroscopyâ€”a tool for rapid differentiation among microbes causing urinary tract infections. Analytica Chimica Acta, 2022, 1191, 339292.	2.6	17
28	Identification of individual biofilm-forming bacterial cells using Raman tweezers. Journal of Biomedical Optics, 2015, 20, 051038.	1.4	16
29	Identification of ability to form biofilm in <i>Candida parapsilosis</i> and <i>Staphylococcus epidermidis</i> by Raman spectroscopy. Future Microbiology, 2019, 14, 509-517.	1.0	16
30	Tunable Soft-Matter Optofluidic Waveguides Assembled by Light. ACS Photonics, 2019, 6, 403-410.	3.2	16
31	Direct measurement of the temperature profile close to an optically trapped absorbing particle. Optics Letters, 2016, 41, 870.	1.7	13
32	Thermal tuning of spectral emission from optically trapped liquid-crystal droplet resonators. Journal of the Optical Society of America B: Optical Physics, 2017, 34, 1855.	0.9	13
33	Aglycemic HepG2 Cells Switch From Aminotransferase Glutaminolytic Pathway of Pyruvate Utilization to Complete Krebs Cycle at Hypoxia. Frontiers in Endocrinology, 2018, 9, 637.	1.5	11
34	Axial optical trap stiffness influenced by retro-reflected beam. Journal of Optics, 2007, 9, S251-S255.	1.5	10
35	Raman microspectroscopy of algal lipid bodies: Î²-carotene as a volume sensor. Proceedings of SPIE, 2011, , .	0.8	7
36	Detection of Chloroalkanes by Surface-Enhanced Raman Spectroscopy in Microfluidic Chips. Sensors, 2018, 18, 3212.	2.1	6

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37	Optically Transportable Optofluidic Microlasers with Liquid Crystal Cavities Tuned by the Electric Field. ACS Applied Materials & Interfaces, 2021, 13, 50657-50667.	4.0	4
38	Raman microspectroscopy of optically trapped micro- and nanoobjects. Proceedings of SPIE, 2008, , .	0.8	3
39	Precise monitoring of ultra low expansion Fabry-Perot cavity length by the use of a stabilized optical frequency comb. , 2010, , .		3
40	Monitor of mirror distance of Fabry-Perot cavity by the use of stabilized femtosecond laser comb. Proceedings of SPIE, 2010, , .	0.8	3
41	Characterization of microorganisms using Raman tweezers. Proceedings of SPIE, 2011, , .	0.8	3
42	Raman tweezers in microfluidic systems for analysis and sorting of living cells. , 2014, , .		3
43	Raman Microspectroscopic Analysis of Selenium Bioaccumulation by Green Alga Chlorella vulgaris. Biosensors, 2021, 11, 115.	2.3	3
44	<title>Behavior of nanoparticle and microparticle in the standing wave trap</title>. , 2001, , .		2
45	<title>Manufacturing of extremely narrow polymer fibers by non-diffracting beams</title>. , 2007, , .		2
46	Active sorting switch for biological objects. , 2010, , .		2
47	Microfluidic systems for optical sorting. , 2012, , .		2
48	Tunable WGM resonators from optically trapped dye doped liquid crystal emulsion droplets. , 2014, , .		2
49	Droplet resonator based optofluidic microlasers. , 2014, , .		2
50	Behaviour of an optically trapped probe approaching a dielectric interface. Journal of Modern Optics, 2003, 50, 1615-1625.	0.6	2
51	The use of an optically trapped microprobe for scanning details of surface. , 2003, 5259, 166.		1
52	Influence of weak reflections from dielectric interfaces on properties of optical trap. , 2003, , .		1
53	How the size of a particle approaching dielectric interface influences its behavior. , 2004, , .		1
54	Raman spectroscopy for bacterial identification and characterization. Proceedings of SPIE, 2012, , .	0.8	1

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55	Raman tweezers on bacteria: following the mechanisms of bacteriostatic versus bactericidal action. , 2014, , .		1
56	Laser tweezers Raman spectroscopy of E. coli under antibiotic stress in microfluidic chips. , 2018, , .		1
57	Multimode fiber transmission matrix obtained with internal references. , 2019, , .		1
58	Combined system for optical cutting and multiple-beam optical trapping. , 1999, 4016, 303.		0
59	<title>Use of a microprobe held by a laser beam for the study of surface reliefs</title>. , 2002, , .		0
60	Spatial structure of chromatin in hybrid cells produced by laser-induced fusion studied by optical microscopy. , 2003, 5036, 630.		0
61	Employment of laser-induced fusion of living cells for the study of spatial structure of chromatin. , 2003, , .		0
62	Combination of photopolymerization and optical micromanipulation techniques. , 2005, , .		0
63	<title>Optical tracking of micro-objects within living cells</title>. , 2006, 6180, 466.		0
64	Narrow polymer fibers obtained as a combination of photopolymerization and non-diffracting beams. , 2006, , .		0
65	Precise measurement of the length by means of DFB diode and femtosecond laser. Proceedings of SPIE, 2009, , .	0.8	0
66	Narrow-selection bandwith of femtosecond laser comb with application to changes in optical path distance. , 2010, , .		0
67	Raman microspectroscopy based sensor of algal lipid unsaturation. Proceedings of SPIE, 2011, , .	0.8	0
68	Tunable optofluidic microlasers based on optically stretched emulsion droplets. , 2013, , .		0
69	Monitoring the influence of antibiotic exposure using Raman spectroscopy. Proceedings of SPIE, 2014, , .	0.8	0
70	Anomalous behavior of a three-dimensional, optically trapped, super-paramagnetic particle. , 2014, , .		0
71	Reproducible and time-course study of yeast biofilm by Raman spectroscopy. Proceedings of SPIE, 2014, , .	0.8	0
72	Raman tweezers in microfluidic systems for analysis and sorting of living cells. , 2014, , .		0

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73	Liquid crystal emulsion micro-droplet WGM resonators. Proceedings of SPIE, 2014, , .	0.8	0
74	Time-resolved study of microorganisms by Raman spectroscopy. Proceedings of SPIE, 2015, , .	0.8	0
75	Temperature-induced tuning of emission spectra of liquid-crystal optical microcavities. Proceedings of SPIE, 2016, , .	0.8	0
76	Raman spectroscopy to monitor the effects of temperature regime and medium composition on micro-organism growth. Proceedings of SPIE, 2016, , .	0.8	0
77	Two-photon photopolymerization with multiple laser beams. Proceedings of SPIE, 2016, , .	0.8	0
78	Directed evolution of enzymes using microfluidic chips. , 2016, , .		0
79	Surface-enhanced Raman Spectroscopy in Microfluidic Chips for Directed Evolution of Enzymes and Environmental Monitoring. , 2019, , .		0
80	Optically bound matter levitated in vacuum. , 2021, , .		0
81	Raman-Tweezers Optofluidic System for Automatic Analysis and Sorting of Living Cells. , 2015, , .		0
82	Time-resolved study of microorganisms by Raman spectroscopy. , 2015, , .		0
83	Optically Trapped Droplets of Liquid Crystals as Flexible, Tunable Optofluidic Microcavities. , 2017, , .		0
84	Motion of optically bound particles in tractor beam. , 2018, , .		0
85	Measurement system for characterization of angular and spectral distribution of LED-based sources. , 2018, , .		0
86	Surface-enhanced Raman spectroscopy of chloroalkanes in microfluidic chips. , 2018, , .		0
87	Analysis of microorganisms, chlorinated hydrocarbons and hyaluronic acid gel using Raman based optofluidic techniques and SERS. , 2019, , .		0