Lene Broeng Oddershede

List of Publications by Year
in descending order

109 papers	5,397 citations	71102 41 h-index	85541 71 g-index
116 all docs	116 docs citations	116 times ranked	6544 citing authors

#	Article	IF	Citations
1	Filopodia rotate and coil by actively generating twist in their actin shaft. Nature Communications, 2022, 13, 1636.	12.8	21
2	Thermoplasmonic nano-rupture of cells reveals annexin V function in plasma membrane repair. Nanoscale, 2022, 14, 7778-7787.	5.6	5
3	Foregut organ progenitors and their niche display distinct viscoelastic properties in vivo during early morphogenesis stages. Communications Biology, 2022, 5, 402.	4.4	3
4	Basement membrane stiffness determines metastases formation. Nature Materials, 2021, 20, 892-903.	27.5	94
5	Fiber finding algorithm using stepwise tracing to identify biopolymer fibers in noisy 3D images. Biophysical Journal, 2021, 120, 3860-3868.	0.5	4
6	Changes in Cell Morphology and Actin Organization in Embryonic Stem Cells Cultured under Different Conditions. Cells, 2021, 10, 2859.	4.1	2
7	Quantification of Visco-Elastic Properties of a Matrigel for Organoid Development as a Function of Polymer Concentration. Frontiers in Physics, 2020, 8, .	2.1	18
8	Plasmonic Material Engineering for Targeted Therapeutics. Advanced Optical Materials, 2020, 8, 2000616.	7.3	2
9	Optical trapping reveals differences in dielectric and optical properties of copper nanoparticles compared to their oxides and ferrites. Scientific Reports, 2020, 10, 1198.	3.3	16
10	Fractionated photothermal therapy in a murine tumor model: comparison with single dose . International Journal of Nanomedicine, 2019, Volume 14, 5369-5379.	6.7	18
11	Plasmonic Heating of Nanostructures. Chemical Reviews, 2019, 119, 8087-8130.	47.7	355
12	Effects and side effects of plasmonic photothermal therapy in brain tissue. Cancer Nanotechnology, 2019, 10, .	3.7	13
13	Optical control of strongly absorbing nanoparticles and their potential for photothermal treatment. , 2019, , .		0
14	Platinum nanoparticles: a non-toxic, effective and thermally stable alternative plasmonic material for cancer therapy and bioengineering. Nanoscale, 2018, 10, 9097-9107.	5.6	94
15	Remotely controlled fusion of selected vesicles and living cells: a key issue review. Reports on Progress in Physics, 2018, 81, 032602.	20.1	17
16	Quantification of Loading and Laser-Assisted Release of RNA from Single Gold Nanoparticles. Langmuir, 2018, 34, 14891-14898.	3.5	15
17	Friction-limited cell motility in confluent monolayer tissue. Physical Biology, 2018, 15, 066004.	1.8	7
18	Cookeâ€“Triplet tweezers: more compact, robust, and efficient optical tweezers. Optics Letters, 2018, 43, 1990.	3.3	26

#	Article	IF	Citations
19	Gold Nanostars Coated with Mesoporous Silica Are Effective and Nontoxic Photothermal Agents Capable of Gate Keeping and Laser-Induced Drug Release. ACS Applied Materials & Interfaces, 2018, 10, 27644-27656.	8.0	57
20	Non-invasive Early Response Monitoring of Nanoparticle-assisted Photothermal Cancer Therapy Using ¹⁸F-FDG, ¹⁸F-FLT, and ¹⁸F-FET PET/CT Imaging. Nanotheranostics, 2018, 2, 201-210.	5.2	12
21	Cancer cellsâ€™ ability to mechanically adjust to extracellular matrix stiffness correlates with their invasive potential. Molecular Biology of the Cell, 2018, 29, 2378-2385.	2.1	182
22	Manipulation and Motion of Organelles and Single Molecules in Living Cells. Chemical Reviews, 2017, 117, 4342-4375.	47.7	196
23	Hot-nanoparticle-mediated fusion of selected cells. Nano Research, 2017, 10, 2034-2045.	10.4	39
24	Dynamics of cancerous tissue correlates with invasiveness. Scientific Reports, 2017, 7, 43800.	3.3	15
25	Optical manipulation of hot nanoparticles can mediate selected cell fusion. Proceedings of SPIE, 2017, , .	0.8	1
26	Membrane curvature regulates ligand-specific membrane sorting of GPCRs in living cells. Nature Chemical Biology, 2017, 13, 724-729.	8.0	81
27	Chirality in microbial biofilms is mediated by close interactions between the cell surface and the substratum. ISME Journal, 2017, 11, 1688-1701.	9.8	25
28	Division Induced Dynamics in Non-Invasive and Invasive Breast Cancer. Biophysical Journal, 2017, 112, 123a.	0.5	8
29	Optical manipulation of individual strongly absorbing platinum nanoparticles. Nanoscale, 2017, 9, 18449-18455.	5.6	18
30	Optically controlled fusion of selected cells and vesicles using plasmonic nanoheaters. , 2017, , 313-343.		0
31	18F-FDG PET/CT-based early treatment response evaluation of nanoparticle-assisted photothermal cancer therapy. PLoS ONE, 2017, 12, e0177997.	2.5	22
32	Using Optically Manipulated Metallic Nanoparticles for Cancer Treatment. , 2017, , .		0
33	Abstract 2869: Comparison of18F-FDG and18F-FLT PET imaging for early response monitoring of nanoparticle-assisted photothermal cancer therapy. , 2017, , .		0
34	Controlled cellular fusion using optically trapped plasmonic nano-heaters. Proceedings of SPIE, 2016, , .	0.8	1
35	Single Particle and PET-based Platform for Identifying Optimal Plasmonic Nano-Heaters for Photothermal Cancer Therapy. Scientific Reports, 2016, 6, 30076.	3.3	55
36	Optical quantification of forces at play during stem cell differentiation. , 2016, , .		0

#	Article	IF	Citations
37	A monomer-trimer model supports intermittent glucagon fibril growth. Scientific Reports, 2015, 5, 9005.	3.3	6
38	An updated look at actin dynamics in filopodia. Cytoskeleton, 2015, 72, 71-79.	2.0	45
39	Vesicle Fusion Triggered by Optically Heated Gold Nanoparticles. Nano Letters, 2015, 15, 4183-4188.	9.1	63
40	Dynamic buckling of actin within filopodia. Communicative and Integrative Biology, 2015, 8, e1022010.	1.4	5
41	Helical buckling of actin inside filopodia generates traction. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 136-141.	7.1	75
42	The influence of flow, shear stress and adhesion molecule targeting on gold nanoparticle uptake in human endothelial cells. Nanoscale, 2015, 7, 11409-11419.	5.6	40
43	Optical Trapping of Gold Nanoparticles in Air. Nano Letters, 2015, 15, 4713-4719.	9.1	71
44	Optical trapping of gold aerosols. Proceedings of SPIE, 2015, , .	0.8	0
45	Uptake of gold nanoparticles in primary human endothelial cells. Toxicology Research, 2015, 4, 655-666.	2.1	58
46	Long-range ordered vorticity patterns in living tissue induced by cell division. Nature Communications, 2014, 5, 5720.	12.8	51
47	Effect of supercoiling on the Î» switch. Bacteriophage, 2014, 4, e27517.	1.9	7
48	Fluorescent quantification of size and lamellarity of membrane nanotubes. European Biophysics Journal, 2014, 43, 595-602.	2.2	11
49	Simultaneous three-dimensional tracking of individual signals from multi-trap optical tweezers using fast and accurate photodiode detection. Optics Express, 2014, 22, 23661.	3.4	17
50	Crosstalk elimination in the detection of dual-beam optical tweezers by spatial filtering. Review of Scientific Instruments, 2014, 85, 053108.	1.3	11
51	Tethered particle analysis of supercoiled circular DNA using peptide nucleic acid handles. Nature Protocols, 2014, 9, 2206-2223.	12.0	8
52	Enabling accurate photodiode detection of multiple optical traps by spatial filtering. Proceedings of SPIE, 2014, , .	0.8	1
53	Optical Trapping of Nanoparticles and Quantum Dots. IEEE Journal of Selected Topics in Quantum Electronics, 2014, 20, 15-26.	2.9	47
54	Optical manipulation of single molecules in the living cell. Physical Chemistry Chemical Physics, 2014, 16, 12614-12624.	2.8	37

#	Article	IF	Citations
55	Heat Generation by Irradiated Complex Composite Nanostructures. Nano Letters, 2014, 14, 612-619.	9.1	47
56	Sub-diffraction positioning of a two-photon excited and optically trapped quantum dot. Nanoscale, 2014, 6, 6997-7003.	5.6	15
57	Force Spectroscopy of DNA and RNA: Structure and Kinetics from Single-Molecule Experiments. Nucleic Acids and Molecular Biology, 2014, , 23-52.	0.2	0
58	FBAR Syndapin 1 recognizes and stabilizes highly curved tubular membranes in a concentration dependent manner. Scientific Reports, 2013, 3, 1565.	3.3	55
59	DNA supercoiling enhances cooperativity and efficiency of an epigenetic switch. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 17386-17391.	7.1	36
60	Anomalous diffusion and power-law relaxation of the time averaged mean squared displacement in worm-like micellar solutions. New Journal of Physics, 2013, 15, 045011.	2.9	186
61	Quantitative determination of optical trapping strength and viscoelastic moduli inside living cells. Physical Biology, 2013, 10, 046006.	1.8	46
62	Mapping 3D Focal Intensity Exposes the Stable Trapping Positions of Single Nanoparticles. Nano Letters, 2013, 13, 31-35.	9.1	32
63	Revealing Hidden Dynamics within Living Soft Matter. ACS Nano, 2013, 7, 8333-8339.	14.6	6
64	A Novel Complex: A Quantum Dot Conjugated to an Active T7RNA Polymerase. Journal of Nanomaterials, 2013, 2013, 1-9.	2.7	5
65	Subnuclear relocalization and silencing of a chromosomal region by an ectopic ribosomal DNA repeat. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E4465-73.	7.1	14
66	Wildtype and A30P Mutant Alpha-Synuclein Form Different Fibril Structures. PLoS ONE, 2013, 8, e67713.	2.5	48
67	Effect of Flow on Endothelial 3D Shear Stress Profile and Cooperative Behavior. , 2013, , .		0
68	Nanoparticle Mediated Photothermal Therapy and Integrated miRNA Delivery. , 2013, , .		0
69	Measurements of extreme orientation-dependent temperature increase around an irradiated gold nanorod. , 2012, , .		1
70	mRNA pseudoknot structures can act as ribosomal roadblocks. Nucleic Acids Research, 2012, 40, 303-313.	14.5	69
71	Force probing of individual molecules inside the living cell is now a reality. Nature Chemical Biology, 2012, 8, 879-886.	8.0	66
72	Large-Scale Orientation Dependent Heating from a Single Irradiated Gold Nanorod. Nano Letters, 2012, 12, 3954-3960.	9.1	87

#	Article	IF	Citations
73	Expanding the Optical Trapping Range of Lipid Vesicles to the Nanoscale. Nano Letters, 2011, 11, 5431-5437.	9.1	54
74	Heat Profiling of Three-Dimensionally Optically Trapped Gold Nanoparticles using Vesicle Cargo Release. Nano Letters, 2011, 11, 888-892.	9.1	143
75	Quantifying how DNA stretches, melts and changes twist under tension. Nature Physics, 2011, 7, 731-736.	16.7	217
76	TimeSeriesStreaming.vi: LabVIEW program for reliable data streaming of large analog time series. Computer Physics Communications, 2011, 182, 485-489.	7.5	7
77	Significant improvement of optical traps by tuning standard water immersion objectives. Journal of Optics (United Kingdom), 2011, 13, 105301.	2.2	23
78	Arachidonic Acid Randomizes Endothelial Cell Motion and Regulates Adhesion and Migration. PLoS ONE, 2011, 6, e25196.	2.5	19
79	Active-passive calibration of optical tweezers in viscoelastic media. Review of Scientific Instruments, 2010, 81, 015103.	1.3	47
80	Two-Photon Quantum Dot Excitation during Optical Trapping. Nano Letters, 2010, 10, 1927-1930.	9.1	67
81	Quantitative Analysis of Single Particle Trajectories: Mean Maximal Excursion Method. Biophysical Journal, 2010, 98, 1364-1372.	0.5	188
82	Direct Measurements of Heating by Electromagnetically Trapped Gold Nanoparticles on Supported Lipid Bilayers. ACS Nano, 2010, 4, 2256-2262.	14.6	169
83	Real-time particle tracking at 10,000 fps using optical fiber illumination. Optics Express, 2010, 18, 22722.	3.4	78
84	Effect of Antibiotics and Antimicrobial Peptides on Single Protein Motility. Current Pharmaceutical Biotechnology, 2009, 10, 486-493.	1.6	4
85	Confocal microscopy of thick specimens. Journal of Biomedical Optics, 2009, 14, 030513.	2.6	10
86	Quantifying and pinpointing sources of noise in optical tweezers experiments. , 2009, , .		4
87	Quantifying Noise in Optical Tweezers by Allan Variance. Optics Express, 2009, 17, 13255.	3.4	105
88	Effect of Energy Metabolism on Protein Motility in the Bacterial Outer Membrane. Biophysical Journal, 2009, 97, 1305-1312.	0.5	18
89	Variety in intracellular diffusion during the cell cycle. Physical Biology, 2009, 6, 025015.	1.8	60
90	Efficient Optical Trapping and Visualization of Silver Nanoparticles. Nano Letters, 2008, 8, 1486-1491.	9.1	204

#	Article	IF	Citations
91	Quantitative Optical Trapping of Single Gold Nanorods. Nano Letters, 2008, 8, 2998-3003.	9.1	171
92	Three-Dimensional Optical Control of Individual Quantum Dots. Nano Letters, 2008, 8, 3376-3380.	9.1	112
93	Non-harmonic potential of a single beam optical trap. Optics Express, 2008, 16, 15709.	3.4	40
94	Optical Tweezers Cause Physiological Damage to Escherichia coli and Listeria Bacteria. Applied and Environmental Microbiology, 2008, 74, 2441-2446.	3.1	150
95	Correlation between mechanical strength of messenger RNA pseudoknots and ribosomal frameshifting. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 5830-5835.	7.1	104
96	Improving optical trapping in the axial direction and a continuous change of the optimal trapping depth. , 2007, , .		1
97	Extending the lateral trapping force of optical tweezers. Proceedings of SPIE, 2007, , .	0.8	0
98	Optimizing immersion media refractive index improves optical trapping by compensating spherical aberrations. Optics Letters, 2007, 32, 1998.	3.3	91
99	Visco-Elastic Membrane Tethers Extracted from Escherichia coli by Optical Tweezers. Biophysical Journal, 2007, 93, 4068-4075.	0.5	20
100	Stepwise Bending of DNA by a Single TATA-Box Binding Protein. Biophysical Journal, 2006, 90, 3694-3703.	0.5	50
101	Combining confocal microscopy with precise force-scope optical tweezers. , 2006, 6326, 560.		21
102	Stretching short DNA tethers using optical tweezers. , 2006, 6326, 496.		0
103	Optical trapping inside living organisms. , 2005, , .		4
104	Novel optical and statistical methods reveal colloidâ€“wall interactions inconsistent with DLVO and Lifshitz theories. Journal of Colloid and Interface Science, 2005, 287, 561-571.	9.4	31
105	Expanding the Optical Trapping Range of Gold Nanoparticles. Nano Letters, 2005, 5, 1937-1942.	9.1	424
106	Parasitic filtering in position detection systems for optical tweezers. , 2004, , .		2
107	Optical probing of specific and nonspecific interactions with nanometer resolution. , 2004, , .		0
108	Single-molecule experiment with optical tweezers: improved analysis of the diffusion of the Â-receptor inE. coliÂs outer membrane. Journal of Physics Condensed Matter, 2003, 15, S1737-S1746.	1.8	11

#	Article	IF	Citations
109	The Motion of a Single Molecule, the Î»-Receptor, in the Bacterial Outer Membrane. Biophysical Journal, 2002, 83, 3152-3161.	0.5	57