

# Erik Schffer

## List of Publications by Citations

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67  
papers

4,991  
citations

33  
h-index

70  
g-index

81  
ext. papers

5,705  
ext. citations

7.6  
avg, IF

5.43  
L-index

#	Paper	IF	Citations
67	Electrically induced structure formation and pattern transfer. <i>Nature</i> , <b>2000</b> , 403, 874-7	50.4	677
66	Nanophase-separated polymer films as high-performance antireflection coatings. <i>Science</i> , <b>1999</b> , 283, 520-2	33.3	574
65	The distribution of active force generators controls mitotic spindle position. <i>Science</i> , <b>2003</b> , 301, 518-21	33.3	292
64	Enzyme-Powered Hollow Mesoporous Janus Nanomotors. <i>Nano Letters</i> , <b>2015</b> , 15, 7043-50	11.5	282
63	Electrohydrodynamic instabilities in polymer films. <i>Europhysics Letters</i> , <b>2001</b> , 53, 518-524	1.6	251
62	Hierarchical structure formation and pattern replication induced by an electric field. <i>Nature Materials</i> , <b>2003</b> , 2, 48-52	27	244
61	Calibration of optical tweezers with positional detection in the back focal plane. <i>Review of Scientific Instruments</i> , <b>2006</b> , 77, 103101	1.7	234
60	Surface forces and drag coefficients of microspheres near a plane surface measured with optical tweezers. <i>Langmuir</i> , <b>2007</b> , 23, 3654-65	4	176
59	Electric field induced instabilities at liquid/liquid interfaces. <i>Journal of Chemical Physics</i> , <b>2001</b> , 114, 2377-2381	3.9	171
58	Microtubule dynamics reconstituted in vitro and imaged by single-molecule fluorescence microscopy. <i>Methods in Cell Biology</i> , <b>2010</b> , 95, 221-45	1.8	164
57	Protein friction limits diffusive and directed movements of kinesin motors on microtubules. <i>Science</i> , <b>2009</b> , 325, 870-3	33.3	159
56	Structure Formation at the Interface of Liquid/Liquid Bilayer in Electric Field. <i>Macromolecules</i> , <b>2002</b> , 35, 3971-3976	5.5	146
55	Influence of Enzyme Quantity and Distribution on the Self-Propulsion of Non-Janus Urease-Powered Micromotors. <i>Journal of the American Chemical Society</i> , <b>2018</b> , 140, 7896-7903	16.4	105
54	Electric Field Induced Dewetting at Polymer/Polymer Interfaces. <i>Macromolecules</i> , <b>2002</b> , 35, 6255-6262	5.5	89
53	Nanonewton optical force trap employing anti-reflection coated, high-refractive-index titania microspheres. <i>Nature Photonics</i> , <b>2012</b> , 6, 469-473	33.9	84
52	Self-Sensing Enzyme-Powered Micromotors Equipped with pH-Responsive DNA Nanoswitches. <i>Nano Letters</i> , <b>2019</b> , 19, 3440-3447	11.5	80
51	Contact line dynamics near the pinning threshold: a capillary rise and fall experiment. <i>Physical Review E</i> , <b>2000</b> , 61, 5257-77	2.4	79

50	Thermomechanical Lithography: Pattern Replication Using a Temperature Gradient Driven Instability. <i>Advanced Materials</i> , <b>2003</b> , 15, 514-517	24	77
49	Morphological Instability of a Confined Polymer Film in a Thermal Gradient. <i>Macromolecules</i> , <b>2003</b> , 36, 1645-1655	5.5	70
48	Optical trapping of coated microspheres. <i>Optics Express</i> , <b>2008</b> , 16, 13831-44	3.3	68
47	Dynamics of Contact Line Pinning in Capillary Rise and Fall. <i>Physical Review Letters</i> , <b>1998</b> , 80, 3069-3072	7.4	57
46	Measuring the complete force field of an optical trap. <i>Optics Letters</i> , <b>2011</b> , 36, 1260-2	3	55
45	Temperature-gradient-induced instability in polymer films. <i>Europhysics Letters</i> , <b>2002</b> , 60, 255-261	1.6	54
44	Optical tweezers with millikelvin precision of temperature-controlled objectives and base-pair resolution. <i>Optics Express</i> , <b>2009</b> , 17, 17190-9	3.3	53
43	Kinesin rotates unidirectionally and generates torque while walking on microtubules. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2017</b> , 114, 10894-10899	11.5	52
42	Pattern Replication by Confined Dewetting. <i>Langmuir</i> , <b>2003</b> , 19, 9714-9718	4	52
41	Inertial effects of a small Brownian particle cause a colored power spectral density of thermal noise. <i>Physical Review Letters</i> , <b>2011</b> , 107, 228301	7.4	48
40	Under-filling trapping objectives optimizes the use of the available laser power in optical tweezers. <i>Optics Express</i> , <b>2011</b> , 19, 11759-68	3.3	47
39	Kinesin-8 is a low-force motor protein with a weakly bound slip state. <i>Biophysical Journal</i> , <b>2013</b> , 104, 2456-64	2.9	41
38	LED illumination for video-enhanced DIC imaging of single microtubules. <i>Journal of Microscopy</i> , <b>2007</b> , 226, 1-5	1.9	40
37	Molecular forces caused by the confinement of thermal noise. <i>Physical Review Letters</i> , <b>2004</b> , 92, 156102	7.4	38
36	Spreading Dynamics of Polydimethylsiloxane Drops: Crossover from Laplace to Van der Waals Spreading. <i>Journal of Colloid and Interface Science</i> , <b>2001</b> , 234, 178-193	9.3	38
35	Label-free high-speed wide-field imaging of single microtubules using interference reflection microscopy. <i>Journal of Microscopy</i> , <b>2018</b> , 272, 60-66	1.9	36
34	Germanium nanospheres for ultraresolution picotensiometry of kinesin motors. <i>Science</i> , <b>2021</b> , 371,	33.3	28
33	The growth speed of microtubules with XMAP215-coated beads coupled to their ends is increased by tensile force. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2013</b> , 110, 14670-5	11.5	27

32	Acoustic instabilities in thin polymer films. <i>European Physical Journal E</i> , <b>2002</b> , 8, 347-51	1.5	27
31	The Kinesin-8 Kip3 switches protofilaments in a sideward random walk asymmetrically biased by force. <i>Biophysical Journal</i> , <b>2015</b> , 108, 2019-27	2.9	25
30	Kinesin Kip2 enhances microtubule growth in vitro through length-dependent feedback on polymerization and catastrophe. <i>ELife</i> , <b>2015</b> , 4,	8.9	24
29	Capillary instabilities by fluctuation induced forces. <i>European Physical Journal E</i> , <b>2003</b> , 12, 375-9; discussion 380-1	1.5	22
28	Developmentally Regulated GTP binding protein 1 (DRG1) controls microtubule dynamics. <i>Scientific Reports</i> , <b>2017</b> , 7, 9996	4.9	21
27	LED-based interference-reflection microscopy combined with optical tweezers for quantitative three-dimensional microtubule imaging. <i>Optics Express</i> , <b>2018</b> , 26, 14499-14513	3.3	19
26	Seeded growth of titania colloids with refractive index tunability and fluorophore-free luminescence. <i>Langmuir</i> , <b>2011</b> , 27, 1626-34	4	18
25	Phragmoplast Orienting Kinesin 2 Is a Weak Motor Switching between Processive and Diffusive Modes. <i>Biophysical Journal</i> , <b>2018</b> , 115, 375-385	2.9	15
24	A Single-Strand Annealing Protein Clamps DNA to Detect and Secure Homology. <i>PLoS Biology</i> , <b>2015</b> , 13, e1002213	9.7	15
23	Dynamic domain formation in membranes: thickness-modulation-induced phase separation. <i>European Physical Journal E</i> , <b>2004</b> , 14, 169-75	1.5	15
22	Versatile microsphere attachment of GFP-labeled motors and other tagged proteins with preserved functionality. <i>Journal of Biological Methods</i> , <b>2015</b> , 2, e30	1.4	15
21	Measuring Microtubule Supertwist and Defects by Three-Dimensional-Force-Clamp Tracking of Single Kinesin-1 Motors. <i>Nano Letters</i> , <b>2018</b> , 18, 1290-1295	11.5	13
20	Aspects of electrohydrodynamic instabilities at polymer interfaces. <i>Fibers and Polymers</i> , <b>2003</b> , 4, 1-7	2	13
19	Determination of pitch rotation in a spherical birefringent microparticle. <i>Journal of Optics (United Kingdom)</i> , <b>2018</b> , 20, 035603	1.7	9
18	Implementation and Tuning of an Optical Tweezers Force-Clamp Feedback System. <i>Methods in Molecular Biology</i> , <b>2017</b> , 1486, 109-136	1.4	7
17	Supported Solid Lipid Bilayers as a Platform for Single-Molecule Force Measurements. <i>Nano Letters</i> , <b>2019</b> , 19, 8877-8886	11.5	7
16	Three-Dimensional Optical Tweezers Tracking Resolves Random Sideward Steps of the Kinesin-8 Kip3. <i>Biophysical Journal</i> , <b>2018</b> , 115, 1993-2002	2.9	7
15	Coated microspheres as enhanced probes for optical trapping <b>2008</b> ,		5

14	High performance passive vibration isolation system for optical tables using six-degree-of-freedom viscous damping combined with steel springs. <i>Review of Scientific Instruments</i> , <b>2019</b> , 90, 015113	1.7	5
13	The Kinesin-8 Kip3 Depolymerizes Microtubules with a Collective Force-Dependent Mechanism. <i>Biophysical Journal</i> , <b>2020</b> , 118, 1958-1967	2.9	4
12	Custom-Made Microspheres for Optical Tweezers. <i>Methods in Molecular Biology</i> , <b>2017</b> , 1486, 137-155	1.4	4
11	Reconstitution and Imaging of Microtubule Dynamics by Fluorescence and Label-free Microscopy. <i>STAR Protocols</i> , <b>2020</b> , 1, 100177	1.4	3
10	Directed Rotational Motion of Birefringent Particles by Randomly Changing the Barrier Height at the Threshold in a Washboard Potential. <i>Current Science</i> , <b>2016</b> , 111, 2005	2.2	3
9	Self-organized organic nanostructures: structure formation in thin polymer blend films. <i>Surface and Interface Analysis</i> , <b>2004</b> , 36, 195-196	1.5	2
8	Germanium nanospheres for ultraresolution picotensometry of kinesin motors		2
7	Breaking of bonds between a kinesin motor and microtubules causes protein friction <b>2010</b> ,		1
6	Anisotropic and Amphiphilic Mesoporous Core-Shell Silica Microparticles Provide Chemically Selective Environments for Simultaneous Delivery of Curcumin and Quercetin. <i>Langmuir</i> , <b>2021</b> , 37, 13460-13470	4.4	0
5	Polycationic gold nanorods as multipurpose in vitro microtubule markers. <i>Nanoscale Advances</i> , <b>2020</b> , 2, 4003-4010	5.1	0
4	Single depolymerizing and transport kinesins stabilize microtubule ends. <i>Cytoskeleton</i> , <b>2021</b> , 78, 177-184	4.4	0
3	Dynamics of Air-Water Contact Lines and Interfaces Near the Pinning Threshold. <i>Materials Research Society Symposia Proceedings</i> , <b>1996</b> , 464, 351		
2	Fast 3D imaging of giant unilamellar vesicles using reflected light-sheet microscopy with single molecule sensitivity. <i>Journal of Microscopy</i> , <b>2021</b> , 285, 40	1.9	
1	Functional surface attachment in a sandwich geometry of GFP-labeled motor proteins. <i>Methods in Molecular Biology</i> , <b>2011</b> , 778, 11-8	1.4	