

# Edgar Meyhofer

## List of Publications by Citations

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89  
papers

5,976  
citations

38  
h-index

77  
g-index

117  
ext. papers

6,959  
ext. citations

9.6  
avg. IF

5.7  
L-index

#	Paper	IF	Citations
89	Microtubule acetylation promotes kinesin-1 binding and transport. <i>Current Biology</i> , <b>2006</b> , 16, 2166-72	6.3	670
88	Kinesin follows the microtubule's protofilament axis. <i>Journal of Cell Biology</i> , <b>1993</b> , 121, 1083-93	7.3	303
87	Enhancement of photovoltaic response in multilayer MoS <sub>2</sub> induced by plasma doping. <i>ACS Nano</i> , <b>2014</b> , 8, 5270-81	16.7	274
86	Nanoscale Protein Patterning by Imprint Lithography. <i>Nano Letters</i> , <b>2004</b> , 4, 853-857	11.5	251
85	Radiative heat transfer in the extreme near field. <i>Nature</i> , <b>2015</b> , 528, 387-91	50.4	242
84	Single molecule imaging reveals differences in microtubule track selection between Kinesin motors. <i>PLoS Biology</i> , <b>2009</b> , 7, e1000216	9.7	222
83	Optics at critical intensity: applications to nanomorphing. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2004</b> , 101, 5856-61	11.5	197
82	Enhancement of near-field radiative heat transfer using polar dielectric thin films. <i>Nature Nanotechnology</i> , <b>2015</b> , 10, 253-8	28.7	186
81	Toxoplasma gondii myosin A and its light chain: a fast, single-headed, plus-end-directed motor. <i>EMBO Journal</i> , <b>2002</b> , 21, 2149-58	13	185
80	The force generated by a single kinesin molecule against an elastic load. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>1995</b> , 92, 574-8	11.5	183
79	Near-field radiative thermal transport: From theory to experiment. <i>AIP Advances</i> , <b>2015</b> , 5, 053503	1.5	153
78	A study of the deterministic character of optical damage by femtosecond laser pulses and applications to nanomachining. <i>Applied Physics B: Lasers and Optics</i> , <b>2003</b> , 77, 25-30	1.9	152
77	Nanogap near-field thermophotovoltaics. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 806-811	28.7	148
76	Radiative heat conductances between dielectric and metallic parallel plates with nanoscale gaps. <i>Nature Nanotechnology</i> , <b>2016</b> , 11, 509-514	28.7	147
75	Mammalian Kinesin-3 motors are dimeric in vivo and move by processive motility upon release of autoinhibition. <i>PLoS Biology</i> , <b>2009</b> , 7, e72	9.7	127
74	Quantized thermal transport in single-atom junctions. <i>Science</i> , <b>2017</b> , 355, 1192-1195	33.3	124
73	Directional loading of the kinesin motor molecule as it buckles a microtubule. <i>Biophysical Journal</i> , <b>1996</b> , 70, 418-29	2.9	121

72	Tracking single Kinesin molecules in the cytoplasm of mammalian cells. <i>Biophysical Journal</i> , <b>2007</b> , 92, 4137-44	2.9	118
71	Perspective: Thermal and thermoelectric transport in molecular junctions. <i>Journal of Chemical Physics</i> , <b>2017</b> , 146, 092201	3.9	104
70	Single-molecule tracking of myosins with genetically engineered amplifier domains. <i>Nature Structural Biology</i> , <b>2001</b> , 8, 226-9		102
69	A Thermal Diode Based on Nanoscale Thermal Radiation. <i>ACS Nano</i> , <b>2018</b> , 12, 5774-5779	16.7	95
68	Self-contained, biomolecular motor-driven protein sorting and concentrating in an ultrasensitive microfluidic chip. <i>Nano Letters</i> , <b>2008</b> , 8, 1041-6	11.5	90
67	Study of radiative heat transfer in Ångström- and nanometre-sized gaps. <i>Nature Communications</i> , <b>2017</b> , 8,	17.4	85
66	Peltier cooling in molecular junctions. <i>Nature Nanotechnology</i> , <b>2018</b> , 13, 122-127	28.7	81
65	Giant Enhancement in Radiative Heat Transfer in Sub-30 nm Gaps of Plane Parallel Surfaces. <i>Nano Letters</i> , <b>2018</b> , 18, 3711-3715	11.5	76
64	Thermal conductance of single-molecule junctions. <i>Nature</i> , <b>2019</b> , 572, 628-633	50.4	68
63	Active alignment of microtubules with electric fields. <i>Nano Letters</i> , <b>2007</b> , 7, 211-7	11.5	61
62	Highly efficient guiding of microtubule transport with imprinted CYTOP nanotracks. <i>Small</i> , <b>2005</b> , 1, 409-114		57
61	Hundred-fold enhancement in far-field radiative heat transfer over the blackbody limit. <i>Nature</i> , <b>2018</b> , 561, 216-221	50.4	57
60	Circadian clock neurons constantly monitor environmental temperature to set sleep timing. <i>Nature</i> , <b>2018</b> , 555, 98-102	50.4	54
59	Influence of Quantum Interference on the Thermoelectric Properties of Molecular Junctions. <i>Nano Letters</i> , <b>2018</b> , 18, 5666-5672	11.5	54
58	SIZE LIMITS IN ESCAPE LOCOMOTION OF CARRIDEAN SHRIMP. <i>Journal of Experimental Biology</i> , <b>1989</b> , 143, 245-265	3	53
57	Near-field photonic cooling through control of the chemical potential of photons. <i>Nature</i> , <b>2019</b> , 566, 239-244	50.4	49
56	Determining plasmonic hot-carrier energy distributions via single-molecule transport measurements. <i>Science</i> , <b>2020</b> , 369, 423-426	33.3	46
55	Efficient designs for powering microscale devices with nanoscale biomolecular motors. <i>Small</i> , <b>2006</b> , 2, 281-7	11	46

54	Paclitaxel-conjugated PAMAM dendrimers adversely affect microtubule structure through two independent modes of action. <i>Biomacromolecules</i> , <b>2013</b> , 14, 654-64	6.9	44
53	The E-hook of tubulin interacts with kinesin's head to increase processivity and speed. <i>Biophysical Journal</i> , <b>2005</b> , 89, 3223-34	2.9	43
52	Mechanical determinants of nectar-feeding energetics in butterflies: muscle mechanics, feeding geometry, and functional equivalence. <i>Oecologia</i> , <b>1989</b> , 79, 66-75	2.9	41
51	Room temperature picowatt-resolution calorimetry. <i>Applied Physics Letters</i> , <b>2011</b> , 99, 043106	3.4	38
50	Thermal and Thermoelectric Properties of Molecular Junctions. <i>Advanced Functional Materials</i> , <b>2020</b> , 30, 1904534	15.6	37
49	Nanomechanical model of microtubule translocation in the presence of electric fields. <i>Biophysical Journal</i> , <b>2008</b> , 94, 3880-92	2.9	36
48	Intrinsic curvature of DNA influences LacR-mediated looping. <i>Biophysical Journal</i> , <b>2007</b> , 93, 4342-59	2.9	36
47	Cooperative kinking at distant sites in mechanically stressed DNA. <i>Nucleic Acids Research</i> , <b>2011</b> , 39, 9820-21	2.321	32
46	Resistance thermometry-based picowatt-resolution heat-flow calorimeter. <i>Applied Physics Letters</i> , <b>2013</b> , 102, 163110	3.4	31
45	Biomolecular motor-driven molecular sorter. <i>Lab on A Chip</i> , <b>2009</b> , 9, 1282-5	7.2	31
44	Single fungal kinesin motor molecules move processively along microtubules. <i>Biophysical Journal</i> , <b>2003</b> , 84, 1833-43	2.9	31
43	Hemocyanin respiratory pigment in bivalve mollusks. <i>Science</i> , <b>1986</b> , 231, 1302-4	33.3	31
42	Unusual properties of the fungal conventional kinesin neck domain from <i>Neurospora crassa</i> . <i>EMBO Journal</i> , <b>2001</b> , 20, 6226-35	13	30
41	High blue-near ultraviolet photodiode response of vertically stacked graphene-MoS <sub>2</sub> -metal heterostructures. <i>Applied Physics Letters</i> , <b>2014</b> , 104, 232103	3.4	29
40	Electrically Programmable Surfaces for Configurable Patterning of Cells. <i>Advanced Materials</i> , <b>2008</b> , 20, 1418-1423	24	28
39	Photovoltaic response in pristine WSe <sub>2</sub> layers modulated by metal-induced surface-charge-transfer doping. <i>Applied Physics Letters</i> , <b>2015</b> , 107, 062102	3.4	26
38	Podocytes in bivalve molluscs: Morphological evidence for ultrafiltration. <i>Journal of Comparative Physiology B: Biochemical, Systemic, and Environmental Physiology</i> , <b>1985</b> , 156, 151-161	2.2	25
37	Biomolecular motor-driven microtubule translocation in the presence of shear flow: analysis of redirection behaviours. <i>Nanotechnology</i> , <b>2007</b> , 18, 025101	3.4	24

36	Autoradiographic measurement of tritiated agmatine as an indicator of physiologic activity in Hermissenda visual and vestibular neurons. <i>Journal of Neurocytology</i> , <b>1986</b> , 15, 629-43		24
35	A theoretical model of a molecular-motor-powered pump. <i>Biomedical Microdevices</i> , <b>2005</b> , 7, 21-33	3.7	23
34	Control of microtubule trajectory within an electric field by altering surface charge density. <i>Scientific Reports</i> , <b>2015</b> , 5, 7669	4.9	22
33	Computational analysis of looping of a large family of highly bent DNA by LacI. <i>Biophysical Journal</i> , <b>2008</b> , 95, 5832-42	2.9	22
32	Different degrees of lever arm rotation control myosin step size. <i>Journal of Cell Biology</i> , <b>2003</b> , 161, 237-43	4.3	22
31	Nanofluidic concentration of selectively extracted biomolecule analytes by microtubules. <i>Analytical Chemistry</i> , <b>2008</b> , 80, 5383-90	7.8	21
30	Nanoscale radiative thermal switching via multi-body effects. <i>Nature Nanotechnology</i> , <b>2020</b> , 15, 99-104	28.7	21
29	Protein pattern assembly by active control of a triblock copolymer monolayer. <i>Nano Letters</i> , <b>2006</b> , 6, 2763-7	11.5	19
28	Collective dynamics of kinesin. <i>Physical Review E</i> , <b>2009</b> , 79, 031929	2.4	18
27	Quantification of thermal and contact resistances of scanning thermal probes. <i>Applied Physics Letters</i> , <b>2014</b> , 105, 203107	3.4	16
26	A platform to parallelize planar surfaces and control their spatial separation with nanometer resolution. <i>Review of Scientific Instruments</i> , <b>2012</b> , 83, 105101	1.7	15
25	Near-field thermophotovoltaics for efficient heat to electricity conversion at high power density. <i>Nature Communications</i> , <b>2021</b> , 12, 4364	17.4	15
24	Back on track - on the role of the microtubule for kinesin motility and cellular function. <i>Journal of Muscle Research and Cell Motility</i> , <b>2006</b> , 27, 161-71	3.5	14
23	Temperature dependence of thermopower in molecular junctions. <i>Applied Physics Letters</i> , <b>2016</b> , 109, 033102	3.4	14
22	Biomolecular motor-driven microtubule translocation in the presence of shear flow: modeling microtubule deflection due to shear. <i>Biomedical Microdevices</i> , <b>2007</b> , 9, 501-11	3.7	13
21	Sub-nanowatt resolution direct calorimetry for probing real-time metabolic activity of individual <i>C. elegans</i> worms. <i>Nature Communications</i> , <b>2020</b> , 11, 2983	17.4	13
20	Scanning Probe Microscopy for Thermal Transport Measurements. <i>Nanoscale and Microscale Thermophysical Engineering</i> , <b>2015</b> , 19, 279-302	3.7	12
19	Mechanistic mathematical model of kinesin under time and space fluctuating loads. <i>Nonlinear Dynamics</i> , <b>2008</b> , 53, 303-320	5	11

18	Bending the rules of transcriptional repression: tightly looped DNA directly represses T7 RNA polymerase. <i>Biophysical Journal</i> , <b>2010</b> , 99, 1139-48	2.9	10
17	Bivalve hemocyanins--a comparison with other molluscan hemocyanins. <i>Comparative Biochemistry and Physiology Part B: Comparative Biochemistry</i> , <b>1988</b> , 89, 189-95		8
16	Electromagnetic tweezers with independent force and torque control. <i>Review of Scientific Instruments</i> , <b>2016</b> , 87, 084304	1.7	8
15	Accumulation of 109cadmium in extracellular granules in the kidney of the bivalve mollusc <i>Mercenaria mercenaria</i> (L.). <i>Marine Environmental Research</i> , <b>1985</b> , 17, 172-175	3.3	7
14	Parallelized, real-time, metabolic-rate measurements from individual <i>Drosophila</i> . <i>Scientific Reports</i> , <b>2018</b> , 8, 14452	4.9	7
13	Characterization of the Bivalve Ultrafiltration System in <i>Mytilus edulis</i> , <i>Chlamys hastata</i> , and <i>Mercenaria mercenaria</i> . <i>Invertebrate Biology</i> , <b>1996</b> , 115, 20	1	6
12	Fabrication of nanoscale zero-mode waveguides using microlithography for single molecule sensing. <i>Nanotechnology</i> , <b>2012</b> , 23, 455301	3.4	5
11	Predicting the stochastic guiding of kinesin-driven microtubules in microfabricated tracks: a statistical-mechanics-based modeling approach. <i>Physical Review E</i> , <b>2010</b> , 81, 011919	2.4	5
10	Recording single motor proteins in the cytoplasm of mammalian cells. <i>Methods in Enzymology</i> , <b>2010</b> , 475, 81-107	1.7	5
9	Cooperativity of multiple kinesin-1 motors mechanically coupled through a shared load. <i>Physica D: Nonlinear Phenomena</i> , <b>2009</b> , 238, 677-686	3.3	4
8	A Kinesin Driven Enzyme Linked Immunosorbant Assay (ELISA) for Ultra Low Protein Detection Applications. <i>Biophysical Journal</i> , <b>2014</b> , 106, 622a	2.9	3
7	A novel dual-color bifocal imaging system for single-molecule studies. <i>Review of Scientific Instruments</i> , <b>2017</b> , 88, 053705	1.7	2
6	Thermal transport: Harmony with superatoms. <i>Nature Materials</i> , <b>2016</b> , 16, 10-11	27	2
5	Highly Bent DNA: A Novel Repressor of T7 RNA Polymerase. <i>Biophysical Journal</i> , <b>2010</b> , 98, 69a	2.9	2
4	Microwatt-Resolution Calorimeter for Studying the Reaction Thermodynamics of Nanomaterials at High Temperature and Pressure. <i>ACS Sensors</i> , <b>2021</b> , 6, 387-398	9.2	2
3	Quantifying the temperature of heated microdevices using scanning thermal probes. <i>Applied Physics Letters</i> , <b>2021</b> , 118, 163102	3.4	2
2	Quantitative Mapping of Unmodulated Temperature Fields with Nanometer Resolution.. <i>ACS Nano</i> , <b>2021</b> ,	16.7	2
1	Surface landing of microtubule nanotracks influenced by lithographically patterned channels. <i>Applied Physics Letters</i> , <b>2009</b> , 95, 103701	3.4	1

