Zev Bryant

List of Publications by Year
in descending order

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34 papers	3,657 citations	257450 24 h-index	395702 33 g-index
36 all docs	36 docs citations	36 times ranked	3534 citing authors

#	Article	IF	Citations
1	Coarse-grained modeling reveals the impact ofÂsupercoiling and loop length in DNA looping kinetics. Biophysical Journal, 2022, 121, 1949-1962.	0.5	2
2	Optical control of fast and processive engineered myosins in vitro and in living cells. Nature Chemical Biology, 2021, 17, 540-548.	8.0	17
3	Curiosity-Based Biophysics Projects in a High School Setting with Graduate Student Mentorship. The Biophysicist, 2021, 2, 6-11.	0.3	0
4	Spatiotemporal control of liquid crystal structure and dynamics through activity patterning. Nature Materials, 2021, 20, 875-882.	27.5	70
5	Machine learning active-nematic hydrodynamics. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	44
6	Engineering reconfigurable flow patterns via surface-driven light-controlled active matter. Physical Review Fluids, 2021, 6, .	2.5	2
7	Introduction: Molecular Motors. Chemical Reviews, 2020, 120, 1-4.	47.7	53
8	Modulated control of DNA supercoiling balance by the DNA-wrapping domain of bacterial gyrase. Nucleic Acids Research, 2020, 48, 2035-2049.	14.5	3
9	Cas9 interrogates DNA in discrete steps modulated by mismatches and supercoiling. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 5853-5860.	7.1	62
10	Multi-parameter measurements of conformational dynamics in nucleic acids and nucleoprotein complexes. Methods, 2019, 169, 69-77.	3.8	2
11	Rotation of endosomes demonstrates coordination of molecular motors during axonal transport. Science Advances, 2018, 4, e1602170.	10.3	38
12	Dynamic coupling between conformations and nucleotide states in DNA gyrase. Nature Chemical Biology, 2018, 14, 565-574.	8.0	18
13	Multimodal Measurements of Single-Molecule Dynamics Using FluoRBT. Biophysical Journal, 2018, 114, 278-282.	0.5	14
14	Controllable molecular motors engineered from myosin and RNA. Nature Nanotechnology, 2018, 13, 34-40.	31.5	19
15	A Mechanosensitive RhoA Pathway that Protects Epithelia against Acute Tensile Stress. Developmental Cell, 2018, 47, 439-452.e6.	7.0	131
16	Cryo-EM structures reveal specialization at the myosin VI-actin interface and a mechanism of force sensitivity. ELife, 2017, 6, .	6.0	58
17	Structural Dynamics and Mechanochemical Coupling in DNA Gyrase. Journal of Molecular Biology, 2016, 428, 1833-1845.	4.2	21
18	Gold rotor bead tracking for high-speed measurements of DNA twist, torque and extension. Nature Methods, 2014, 11, 456-462.	19.0	80

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19	Engineering myosins for long-range transport on actin filaments. Nature Nanotechnology, 2014, 9, 33-38.	31.5	42
20	Remote control of myosin and kinesin motors using light-activated gearshifting. Nature Nanotechnology, 2014, 9, 693-697.	31.5	82
21	Torque Spectroscopy of DNA: Base-Pair Stability, Boundary Effects, Backbending, and Breathing Dynamics. Physical Review Letters, 2013, 110, 178103.	7.8	33
22	Torque measurements reveal sequence-specific cooperative transitions in supercoiled DNA. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 6106-6111.	7.1	84
23	ATP binding controls distinct structural transitions of Escherichia coli DNA gyrase in complex with DNA. Nature Structural and Molecular Biology, 2012, 19, 538-546.	8.2	61
24	Engineering controllable bidirectional molecular motors based on myosin. Nature Nanotechnology, 2012, 7, 252-256.	31.5	69
25	Recent developments in single-molecule DNA mechanics. Current Opinion in Structural Biology, 2012, 22, 304-312.	5.7	74
26	Detailed Tuning of Structure and Intramolecular Communication Are Dispensable for Processive Motion of Myosin VI. Biophysical Journal, 2011, 100, 430-439.	0.5	39
27	Contribution of the myosin VI tail domain to processive stepping and intramolecular tension sensing. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7746-7750.	7.1	43
28	Engineered Myosin VI Motors Reveal Minimal Structural Determinants of Directionality and Processivity. Journal of Molecular Biology, 2009, 392, 862-867.	4.2	33
29	The power stroke of myosin VI and the basis of reverse directionality. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 772-777.	7.1	93
30	Multiple modes of Escherichia coli DNA gyrase activity revealed by force and torque. Nature Structural and Molecular Biology, 2007, 14, 264-271.	8.2	101
31	Mechanochemical analysis of DNA gyrase using rotor bead tracking. Nature, 2006, 439, 100-104.	27.8	172
32	DNA overwinds when stretched. Nature, 2006, 442, 836-839.	27.8	358
33	Ten years of tension: single-molecule DNA mechanics. Nature, 2003, 421, 423-427.	27.8	1,203
34	Structural transitions and elasticity from torque measurements on DNA. Nature, 2003, 424, 338-341.	27.8	536