Wonmuk Hwang

List of Publications by Year
in descending order

34	1,625	430874	414414
papers	citations	18 h-index	32 g-index

36	36	36	1937
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Self-assembly of Surfactant-like Peptides with Variable Glycine Tails to Form Nanotubes and Nanovesicles. Nano Letters, 2002, 2, 687-691.	9.1	316
2	Kinetic control of dimer structure formation in amyloid fibrillogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 12916-12921.	7.1	171
3	Force Generation in Kinesin Hinges on Cover-Neck Bundle Formation. Structure, 2008, 16, 62-71.	3.3	154
4	Kinesin's cover-neck bundle folds forward to generate force. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 19247-19252.	7.1	132
5	Structural basis for power stroke vs. Brownian ratchet mechanisms of motor proteins. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 19777-19785.	7.1	101
6	Supramolecular structure of helical ribbons self-assembled from a Î²-sheet peptide. Journal of Chemical Physics, 2003, 118, 389-397.	3.0	100
7	Computational Analysis of a Cross-linked Actin-like Network. Experimental Mechanics, 2009, 49, 91-104.	2.0	83
8	Structural Features of the Î±Î²TCR Mechanotransduction Apparatus That Promote pMHC Discrimination. Frontiers in Immunology, 2015, 6, 441.	4.8	55
9	Midbrain-Hindbrain Boundary Morphogenesis: At the Intersection of Wnt and Fgf Signaling. Frontiers in Neuroanatomy, 2017, 11, 64.	1.7	49
10	Kinesin-12 Kif15 Targets Kinetochore Fibers through an Intrinsic Two-Step Mechanism. Current Biology, 2014, 24, 2307-2313.	3.9	46
11	Collective Force Regulation in Anti-parallel Microtubule Gliding by Dimeric Kif15 Kinesin Motors. Current Biology, 2017, 27, 2810-2820.e6.	3.9	46
12	The Î±Î² TCR mechanosensor exploits dynamic ectodomain allostery to optimize its ligand recognition site. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21336-21345.	7.1	44
13	Effect of functionalization on the self-assembling propensity of Î²-sheet forming peptides. Soft Matter, 2009, 5, 660-668.	2.7	41
14	Effect of Methylation on Local Mechanics and Hydration Structure of DNA. Biophysical Journal, 2018, 114, 1791-1803.	0.5	38
15	Mechanical Design of Translocating Motor Proteins. Cell Biochemistry and Biophysics, 2009, 54, 11-22.	1.8	36
16	Kinesin motility is driven by subdomain dynamics. ELife, 2017, 6, .	6.0	36
17	Preâ€“T cell receptors topologically sample self-ligands during thymocyte Î²-selection. Science, 2021, 371, 181-185.	12.6	25
18	Elastic Energy Partitioning in DNA Deformation and Binding to Proteins. ACS Nano, 2016, 10, 170-180.	14.6	19

#	Article	IF	Citations
19	Role of Hydration Force in the Self-Assembly of Collagens and Amyloid Steric Zipper Filaments. Journal of the American Chemical Society, 2011, 133, 11766-11773.	13.7	18
20	NMR: an essential structural tool for integrative studies of T cell development, pMHC ligand recognition and TCR mechanobiology. Journal of Biomolecular NMR, 2019, 73, 319-332.	2.8	18
21	Molecular Mechanisms of Tight Binding through Fuzzy Interactions. Biophysical Journal, 2018, 114, 1313-1320.	0.5	17
22	Molecular recognition of a host protein by NS1 of pandemic and seasonal influenza A viruses. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 6550-6558.	7.1	13
23	Behavior of Kinesin Driven Quantum Dots Trapped in a Microtubule Loop. ACS Nano, 2015, 9, 11003-11013.	14.6	12
24	Calculation of conformation-dependent biomolecular forces. Journal of Chemical Physics, 2007, 127, 175104.	3.0	11
25	Molecular design of the Î³ÎT cell receptor ectodomain encodes biologically fit ligand recognition in the absence of mechanosensing. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	11
26	Nucleotide-Dependent Control of Internal Strains in Ring-Shaped AAA+ Motors. Cellular and Molecular Bioengineering, 2013, 6, 65-73.	2.1	7
27	Role of mechanical flow for actin network organization. Acta Biomaterialia, 2019, 90, 217-224.	8.3	7
28	Entropy Hotspots for the Binding of Intrinsically Disordered Ligands to a Receptor Domain. Biophysical Journal, 2020, 118, 2502-2512.	0.5	6
29	Kinetic Signature of Fractal-like Filament Networks Formed by Orientational Linear Epitaxy. Physical Review Letters, 2014, 113, 025502.	7.8	5
30	In Vitro Analysis of the Co-Assembly of Type-I and Type-III Collagen. Cellular and Molecular Bioengineering, 2017, 10, 41-53.	2.1	4
31	A Unifying Framework for Understanding Biological Structures and Functions Across Levels of Biological Organization. Integrative and Comparative Biology, 2021, , .	2.0	1
32	Building a three-dimensional model of early-stage zebrafish embryo brain. Biophysical Reports, 2021, 1, 100003.	1.2	1
33	Supramolecular structure of a helical ribbon peptide self-assembly. , 0, , .		0
34	Electric field-based organization of cytoskeletal nanowires using metallic glass wire electrodes. , 2016, , .		0