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	Preâ€“T cell receptors topologically sample self-ligands during thymocyte Î²-selection. Science, 2021, 371, 181-185.	12.6	25
2	Molecular design of the Î³Î´T 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
3	A Unifying Framework for Understanding Biological Structures and Functions Across Levels of Biological Organization. Integrative and Comparative Biology, 2021, , .	2.0	1
4	Building a three-dimensional model of early-stage zebrafish embryo brain. Biophysical Reports, 2021, 1, 100003.	1.2	1
5	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
6	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
7	Entropy Hotspots for the Binding of Intrinsically Disordered Ligands to a Receptor Domain. Biophysical Journal, 2020, 118, 2502-2512.	0.5	6
8	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
9	Role of mechanical flow for actin network organization. Acta Biomaterialia, 2019, 90, 217-224.	8.3	7
10	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
11	Effect of Methylation on Local Mechanics and Hydration Structure of DNA. Biophysical Journal, 2018, 114, 1791-1803.	0.5	38
12	Molecular Mechanisms of Tight Binding through Fuzzy Interactions. Biophysical Journal, 2018, 114, 1313-1320.	0.5	17
13	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
14	Collective Force Regulation in Anti-parallel Microtubule Gliding by Dimeric Kif15 Kinesin Motors. Current Biology, 2017, 27, 2810-2820.e6.	3.9	46
15	Kinesin motility is driven by subdomain dynamics. ELife, 2017, 6, .	6.0	36
16	Midbrain-Hindbrain Boundary Morphogenesis: At the Intersection of Wnt and Fgf Signaling. Frontiers in Neuroanatomy, 2017, 11, 64.	1.7	49
17	Electric field-based organization of cytoskeletal nanowires using metallic glass wire electrodes. , 2016, , .		0
18	Elastic Energy Partitioning in DNA Deformation and Binding to Proteins. ACS Nano, 2016, 10, 170-180.	14.6	19

#	Article	IF	Citations
19	Structural Features of the Î±Î²TCR Mechanotransduction Apparatus That Promote pMHC Discrimination. Frontiers in Immunology, 2015, 6, 441.	4.8	55
20	Behavior of Kinesin Driven Quantum Dots Trapped in a Microtubule Loop. ACS Nano, 2015, 9, 11003-11013.	14.6	12
21	Kinesin-12 Kif15 Targets Kinetochore Fibers through an Intrinsic Two-Step Mechanism. Current Biology, 2014, 24, 2307-2313.	3.9	46
22	Kinetic Signature of Fractal-like Filament Networks Formed by Orientational Linear Epitaxy. Physical Review Letters, 2014, 113, 025502.	7.8	5
23	Nucleotide-Dependent Control of Internal Strains in Ring-Shaped AAA+ Motors. Cellular and Molecular Bioengineering, 2013, 6, 65-73.	2.1	7
24	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
25	Mechanical Design of Translocating Motor Proteins. Cell Biochemistry and Biophysics, 2009, 54, 11-22.	1.8	36
26	Computational Analysis of a Cross-linked Actin-like Network. Experimental Mechanics, 2009, 49, 91-104.	2.0	83
27	Effect of functionalization on the self-assembling propensity of Î²-sheet forming peptides. Soft Matter, 2009, 5, 660-668.	2.7	41
28	Force Generation in Kinesin Hinges on Cover-Neck Bundle Formation. Structure, 2008, 16, 62-71.	3.3	154
29	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
30	Calculation of conformation-dependent biomolecular forces. Journal of Chemical Physics, 2007, 127, 175104.	3.0	11
31	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
32	Supramolecular structure of helical ribbons self-assembled from a Î²-sheet peptide. Journal of Chemical Physics, 2003, 118, 389-397.	3.0	100
33	Self-assembly of Surfactant-like Peptides with Variable Glycine Tails to Form Nanotubes and Nanovesicles. Nano Letters, 2002, 2, 687-691.	9.1	316
34	Supramolecular structure of a helical ribbon peptide self-assembly. , 0, , .		0