Alejandro Valbuena

List of Publications by Year
in descending order

27 papers	547 citations	623734 14 h-index	713466 21 g-index
29 all docs	29 docs citations	29 times ranked	781 citing authors

#	Article	IF	Citations
1	A Genetically Engineered, Chain Mailâ€Like Nanostructured Protein Material with Increased Fatigue Resistance and Enhanced Selfâ€Healing. Small, 2022, , 2105456.	10.0	4
2	Antiviral compounds modulate elasticity, strength and material fatigue of a virus capsid framework. Biophysical Journal, 2022, 121, 919-931.	0.5	7
3	Long-Range Cooperative Disassembly and Aging During Adenovirus Uncoating. Physical Review X, 2021, 11, .	8.9	3
4	Visualization of Single Molecules Building a Viral Capsid Protein Lattice through Stochastic Pathways. ACS Nano, 2020, 14, 8724-8734.	14.6	33
5	Nanomechanics of tip-link cadherins. Scientific Reports, 2019, 9, 13306.	3.3	14
6	Structural determinants of mechanical resistance against breakage of a virus-based protein nanoparticle at a resolution of single amino acids. Nanoscale, 2019, 11, 9369-9383.	5.6	9
7	Thermostability of the Foot-and-Mouth Disease Virus Capsid Is Modulated by Lethal and Viability-Restoring Compensatory Amino Acid Substitutions. Journal of Virology, 2019, 93, .	3.4	9
8	Mechanical stiffening of human rhinovirus by cavity-filling antiviral drugs. Nanoscale, 2018, 10, 1440-1452.	5.6	16
9	Amino Acid Side Chains Buried along Intersubunit Interfaces in a Viral Capsid Preserve Low Mechanical Stiffness Associated with Virus Infectivity. ACS Nano, 2017, 11, 2194-2208.	14.6	23
10	Kinetics of Surface-Driven Self-Assembly and Fatigue-Induced Disassembly of a Virus-Based Nanocoating. Biophysical Journal, 2017, 112, 663-673.	0.5	17
11	Structural Analysis of a Temperature-Induced Transition in a Viral Capsid Probed by HDX-MS. Biophysical Journal, 2017, 112, 1157-1165.	0.5	28
12	Structural basis for biologically relevant mechanical stiffening of a virus capsid by cavity-creating or spacefilling mutations. Scientific Reports, 2017, 7, 4101.	3.3	23
13	Imaging and Quantitation of a Succession of Transient Intermediates Reveal the Reversible Self-Assembly Pathway of a Simple Icosahedral Virus Capsid. Journal of the American Chemical Society, 2016, 138, 15385-15396.	13.7	38
14	Conformational rearrangements in the transmembrane domain of CNGA1 channels revealed by single-molecule force spectroscopy. Nature Communications, 2015, 6, 7093.	12.8	24
15	Quantification and modification of the equilibrium dynamics and mechanics of a viral capsid lattice self-assembled as a protein nanocoating. Nanoscale, 2015, 7, 14953-14964.	5.6	21
16	Single Molecule Force Spectroscopy of CNGA1 Channels â€œIn Situâ€• Reveals Major Conformational Changes upon Gating. Biophysical Journal, 2014, 106, 392a.	0.5	0
17	Single Molecule Force Spectroscopy of CNGA1 Channels In Situ. Biophysical Journal, 2013, 104, 167a.	0.5	0
18	Role of Myosin II in Motility and in Force Generation of DRG Growth Cones. Biophysical Journal, 2013, 104, 477a.	0.5	0

#	Article	IF	Citations
19	Common Features at the Start of the Neurodegeneration Cascade. PLoS Biology, 2012, 10, e1001335.	5.6	60
20	The Nanomechanics of Neurotoxic Proteins Reveals Common Features at the Start of the Neurodegeneration Cascade. Biophysical Journal, 2012, 102, 633a.	0.5	0
21	Understanding CNG Channels Gating Process by MD Simulations. Biophysical Journal, 2012, 102, 129a-130a.	0.5	0
22	Characterization of Cyclic Nucleotide Gated Channels using Atomic Force Microscope. Biophysical Journal, 2012, 102, 131a.	0.5	0
23	Mechanical Properties of Î²-Catenin Revealed by Single-Molecule Experiments. Biophysical Journal, 2012, 103, 1744-1752.	0.5	28
24	Unequivocal Single-Molecule Force Spectroscopy of Intrinsically Disordered Proteins. Methods in Molecular Biology, 2012, 896, 71-87.	0.9	7
25	Nanomechanics of the Cadherin Ectodomain. Journal of Biological Chemistry, 2011, 286, 9405-9418.	3.4	45
26	On the remarkable mechanostability of scaffoldins and the mechanical clamp motif. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 13791-13796.	7.1	116
27	Quasi-simultaneous imaging/pulling analysis of single polyprotein molecules by atomic force microscopy. Review of Scientific Instruments, 2007, 78, 113707.	1.3	22