Jorge Alegre-Cebollada

List of Publications by Year
in descending order

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57 papers	2,650 citations	236612 25 h-index	197535 49 g-index
63 all docs	63 docs citations	63 times ranked	3201 citing authors

#	Article	IF	Citations
1	A Network of Macrophages Supports Mitochondrial Homeostasis in the Heart. Cell, 2020, 183, 94-109.e23.	13.5	360
2	Single-molecule paleoenzymology probes the chemistry of resurrected enzymes. Nature Structural and Molecular Biology, 2011, 18, 592-596.	3.6	182
3	S-Glutathionylation of Cryptic Cysteines Enhances Titin Elasticity by Blocking Protein Folding. Cell, 2014, 156, 1235-1246.	13.5	170
4	Protein Folding Drives Disulfide Formation. Cell, 2012, 151, 794-806.	13.5	158
5	Fungal ribotoxins: molecular dissection of a family of natural killers. FEMS Microbiology Reviews, 2007, 31, 212-237.	3.9	126
6	Direct observation of disulfide isomerization in a single protein. Nature Chemistry, 2011, 3, 882-887.	6.6	121
7	Nicotinamide for the treatment of heart failure with preserved ejection fraction. Science Translational Medicine, 2021, 13, .	5.8	109
8	Nanomechanics of HaloTag Tethers. Journal of the American Chemical Society, 2013, 135, 12762-12771.	6.6	108
9	Force dependency of biochemical reactions measured by single-molecule force-clamp spectroscopy. Nature Protocols, 2013, 8, 1261-1276.	5.5	101
10	Isopeptide Bonds Block the Mechanical Extension of Pili in Pathogenic Streptococcus pyogenes. Journal of Biological Chemistry, 2010, 285, 11235-11242.	1.6	94
11	The behavior of sea anemone actinoporins at the waterâ€“membrane interface. Biochimica Et Biophysica Acta - Biomembranes, 2011, 1808, 2275-2288.	1.4	76
12	Disulfide isomerization reactions in titin immunoglobulinÂdomains enable a mode of protein elasticity. Nature Communications, 2018, 9, 185.	5.8	70
13	Single-molecule Force Spectroscopy Approach to Enzyme Catalysis. Journal of Biological Chemistry, 2010, 285, 18961-18966.	1.6	67
14	Sea Anemone Actinoporins: The Transition from a Folded Soluble State to a Functionally Active Membrane-Bound Oligomeric Pore. Current Protein and Peptide Science, 2007, 8, 558-572.	0.7	63
15	CnaA domains in bacterial pili are efficient dissipaters of large mechanical shocks. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2490-2495.	3.3	60
16	Calorimetric Scrutiny of Lipid Binding by Sticholysin II Toxin Mutants. Journal of Molecular Biology, 2008, 382, 920-930.	2.0	51
17	An Abl-FBP17 mechanosensing system couples local plasma membrane curvature and stress fiber remodeling during mechanoadaptation. Nature Communications, 2019, 10, 5828.	5.8	50
18	Detergent-resistant membranes are platforms for actinoporin pore-forming activity on intact cells. FEBS Journal, 2006, 273, 863-871.	2.2	49

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19	Three-dimensional structure of the actinoporin sticholysin I. Influence of long-distance effects on protein function. Archives of Biochemistry and Biophysics, 2013, 532, 39-45.	1.4	47
20	A HaloTag-TEV genetic cassette for mechanical phenotyping of proteins from tissues. Nature Communications, 2020, 11, 2060.	5.8	42
21	Infrared Spectroscopy Study on the Conformational Changes Leading to Pore Formation of the Toxin Sticholysin II. Biophysical Journal, 2007, 93, 3191-3201.	0.2	39
22	Specific interactions of sticholysin I with model membranes: An NMR study. Proteins: Structure, Function and Bioinformatics, 2010, 78, 1959-1970.	1.5	36
23	Silent mutations at the 5â€²-end of the cDNA of actinoporins from the sea anemone Stichodactyla helianthus allow their heterologous overproduction in Escherichia coli. Journal of Biotechnology, 2007, 127, 211-221.	1.9	35
24	Phenotypic selection and characterization of randomly produced non-haemolytic mutants of the toxic sea anemone protein sticholysin II. FEBS Letters, 2004, 575, 14-18.	1.3	34
25	Mechanochemical evolution of the giant muscle protein titin as inferred from resurrected proteins. Nature Structural and Molecular Biology, 2017, 24, 652-657.	3.6	30
26	The Therapeutic Potential of Fungal Ribotoxins. Current Pharmaceutical Biotechnology, 2008, 9, 153-160.	0.9	28
27	Protein Hydrogels: The Swiss Army Knife for Enhanced Mechanical and Bioactive Properties of Biomaterials. Nanomaterials, 2021, 11, 1656.	1.9	27
28	1H, 13C, and 15N NMR assignments of the actinoporin Sticholysin I. Biomolecular NMR Assignments, 2009, 3, 5-7.	0.4	24
29	Conformational Plasticity of the Essential Membrane-associated Mannosyltransferase PimA from Mycobacteria. Journal of Biological Chemistry, 2013, 288, 29797-29808.	1.6	24
30	Protein haploinsufficiency drivers identify MYBPC3 variants that cause hypertrophic cardiomyopathy. Journal of Biological Chemistry, 2021, 297, 100854.	1.6	23
31	Intrinsic local disorder and a network of chargeâ€"charge interactions are key to actinoporin membrane disruption and cytotoxicity. FEBS Journal, 2011, 278, 2080-2089.	2.2	21
32	Synergistic Action of Actinoporin Isoforms from the Same Sea Anemone Species Assembled into Functionally Active Heteropores. Journal of Biological Chemistry, 2016, 291, 14109-14119.	1.6	21
33	Protein nanomechanics in biological context. Biophysical Reviews, 2021, 13, 435-454.	1.5	21
34	Protein Thermodynamic Destabilization in the Assessment of Pathogenicity of a Variant of Uncertain Significance in Cardiac Myosin Binding Protein C. Journal of Cardiovascular Translational Research, 2020, 13, 867-877.	1.1	18
35	Identifying Sequential Substrate Binding at the Single-Molecule Level by Enzyme Mechanical Stabilization. ACS Nano, 2015, 9, 3996-4005.	7.3	16
36	Concurrent atomic force spectroscopy. Communications Physics, 2019, 2, .	2.0	16

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37	Nanomechanical Phenotypes in Cardiac Myosin-Binding Protein C Mutants That Cause Hypertrophic Cardiomyopathy. ACS Nano, 2021, 15, 10203-10216.	7.3	16
38	1H, 13C, and 15N NMR assignments of StnII-Y111N, a highly impaired mutant of the sea anemone actinoporin Sticholysin II. Biomolecular NMR Assignments, 2010, 4, 69-72.	0.4	14
39	Altered Thiol Chemistry in Human Amyotrophic Lateral Sclerosis-linked Mutants of Superoxide Dismutase 1. Journal of Biological Chemistry, 2014, 289, 26722-26732.	1.6	14
40	Redox regulation of protein nanomechanics in health and disease: Lessons from titin. Redox Biology, 2019, 21, 101074.	3.9	13
41	The mechanics of the heart: zooming in on hypertrophic cardiomyopathy and cMyBPâ€C. FEBS Letters, 2022, 596, 703-746.	1.3	12
42	Spontaneous Dimerization of Titin Protein Z1Z2 Domains Induces Strong Nanomechanical Anchoring. Journal of Biological Chemistry, 2012, 287, 20240-20247.	1.6	11
43	A Novel Strategy for Utilizing Voice Coil Servoactuators in Tensile Tests of Low Volume Protein Hydrogels. Macromolecular Materials and Engineering, 2015, 300, 369-376.	1.7	11
44	1H, 13C, and 15N NMR assignments of StnII-R29Q, a defective lipid binding mutant of the sea anemone actinoporin Sticholysin II. Biomolecular NMR Assignments, 2009, 3, 239-241.	0.4	7
45	Basal oxidation of conserved cysteines modulates cardiac titin stiffness and dynamics. Redox Biology, 2022, 52, 102306.	3.9	7
46	Protease Power Strokes Force Proteins to Unfold. Cell, 2011, 145, 339-340.	13.5	6
47	Lactococcus lactis as a vehicle for the heterologous expression of fungal ribotoxin variants with reduced IgE-binding affinity. Journal of Biotechnology, 2008, 134, 1-8.	1.9	5
48	Correspondence on â€œComputational prediction of protein subdomain stability in MYBPC3 enables clinical risk stratification in hypertrophic cardiomyopathy and enhances variant interpretationâ€•by Thompson et al.. Genetics in Medicine, 2021, 23, 2009-2010.	1.1	3
49	Halotag Tethers to Study Titin Folding at the Single Molecule Level. Biophysical Journal, 2014, 106, 391a.	0.2	1
50	Solvent Bridging Determines The Molecular Architecture Of The Unfolding Transition State Of A Protein. Biophysical Journal, 2009, 96, 72a-73a.	0.2	0
51	Towards a General Platform to Study Single-Bond Chemistry Under Force. Biophysical Journal, 2012, 102, 11a-12a.	0.2	0
52	Surviving a Bumpy Ride in the Oropharynx: Bacterial Pili as Nano-Seatbelts that Dissipate Mechanical Energy. Biophysical Journal, 2014, 106, 578a.	0.2	0
53	Nanomechanical Phenotypes in Hypertrophic Cardiomyopathy caused by Missense Mutations in Cardiac Myosin-Binding Protein C. Biophysical Journal, 2017, 112, 164a-165a.	0.2	0
54	Specific Cleavage of the Titin Springs In Situ Uncovers the Role of Titin-Based Force in Sarcomere Structure and Muscle Contraction. Biophysical Journal, 2019, 116, 402a.	0.2	0

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55	Independent Tuning of Viscous and Elastic Properties of Protein Biomaterials. Biophysical Journal, 2020, 118, 163a-164a.	0.2	0
56	Crystallographic Structures of Titin Immunoglobulin-Like I21 Domains Involved in Dilated Cardiomyopathy. Biophysical Journal, 2021, 120, 252a.	0.2	0
57	Enzyme Catalysis at the Single-Molecule Level. , 2012, , 149-168.		0