Sergi Garcia-Manyes

List of Publications by Year
in descending order

#	Article	IF	Citations
1	Force Triggers YAP Nuclear Entry by Regulating Transport across Nuclear Pores. Cell, 2017, 171, 1397-1410.e14.	13.5	927
2	Dividing Cells Regulate Their Lipid Composition and Localization. Cell, 2014, 156, 428-439.	13.5	262
3	Effect of Ion-Binding and Chemical Phospholipid Structure on the Nanomechanics of Lipid Bilayers Studied by Force Spectroscopy. Biophysical Journal, 2005, 89, 1812-1826.	0.2	208
4	Single-molecule paleoenzymology probes the chemistry of resurrected enzymes. Nature Structural and Molecular Biology, 2011, 18, 592-596.	3.6	182
5	Effect of Temperature on the Nanomechanics of Lipid Bilayers Studied by Force Spectroscopy. Biophysical Journal, 2005, 89, 4261-4274.	0.2	157
6	Modulation of Titin-Based Stiffness by Disulfide Bonding in the Cardiac Titin N2-B Unique Sequence. Biophysical Journal, 2009, 97, 825-834.	0.2	151
7	Nanomechanics of lipid bilayers by force spectroscopy with AFM: A perspective. Biochimica Et Biophysica Acta - Biomembranes, 2010, 1798, 741-749.	1.4	148
8	Nanomechanics of Lipid Bilayers: Heads or Tails?. Journal of the American Chemical Society, 2010, 132, 12874-12886.	6.6	135
9	Force-Clamp Spectroscopy of Single-Protein Monomers Reveals the Individual Unfolding and Folding Pathways of I27 and Ubiquitin. Biophysical Journal, 2007, 93, 2436-2446.	0.2	131
10	Direct observation of an ensemble of stable collapsed states in the mechanical folding of ubiquitin. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10534-10539.	3.3	116
11	Force-activated reactivity switch in a bimolecular chemical reaction. Nature Chemistry, 2009, 1, 236-242.	6.6	113
12	Force dependency of biochemical reactions measured by single-molecule force-clamp spectroscopy. Nature Protocols, 2013, 8, 1261-1276.	5.5	101
13	Steering chemical reactions with force. Nature Reviews Chemistry, 2017, 1, .	13.8	95
14	Mechanical Unfolding Pathways of the Enhanced Yellow Fluorescent Protein Revealed by Single Molecule Force Spectroscopy. Journal of Biological Chemistry, 2006, 281, 40010-40014.	1.6	88
15	Effect of pH and ionic strength on phospholipid nanomechanics and on deposition process onto hydrophilic surfaces measured by AFM. Electrochimica Acta, 2006, 51, 5029-5036.	2.6	79
16	Collapse Dynamics of Single Proteins Extended by Force. Biophysical Journal, 2010, 98, 2692-2701.	0.2	79
17	Probing static disorder in Arrhenius kinetics by single-molecule force spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 11336-11340.	3.3	65
18	Dwell-Time Distribution Analysis of Polyprotein Unfolding Using Force-Clamp Spectroscopy. Biophysical Journal, 2007, 92, 2896-2903.	0.2	63

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19	Mechanical Characterization of Protein L in the Low-Force Regime by Electromagnetic Tweezers/Evanescent Nanometry. Biophysical Journal, 2009, 96, 3810-3821.	0.2	61
20	Rate limit of protein elastic response is tether dependent. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 14416-14421.	3.3	59
21	The mechanochemistry of copper reports on the directionality of unfolding in model cupredoxin proteins. Nature Communications, 2015, 6, 7894.	5.8	57
22	Protein S-sulfenylation is a fleeting molecular switch that regulates non-enzymatic oxidative folding. Nature Communications, 2016, 7, 12490.	5.8	54
23	Study of Frictional Properties of a Phospholipid Bilayer in a Liquid Environment with Lateral Force Microscopy as a Function of NaCl Concentration. Langmuir, 2005, 21, 7373-7379.	1.6	53
24	Direct Quantification of the Attempt Frequency Determining the Mechanical Unfolding of Ubiquitin Protein. Journal of Biological Chemistry, 2011, 286, 31072-31079.	1.6	52
25	Forcing the reversibility of a mechanochemical reaction. Nature Communications, 2018, 9, 3155.	5.8	50
26	The nanomechanics of individual proteins. Chemical Society Reviews, 2020, 49, 6816-6832.	18.7	48
27	Osmolyte-induced separation of the mechanical folding phases of ubiquitin. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 10540-10545.	3.3	46
28	Hopping around an entropic barrier created by force. Biochemical and Biophysical Research Communications, 2010, 403, 133-137.	1.0	45
29	Single-molecule Force Spectroscopy Predicts a Misfolded, Domain-swapped Conformation in human Î³D-Crystallin Protein. Journal of Biological Chemistry, 2016, 291, 4226-4235.	1.6	42
30	Patterning of human epidermal stem cells on undulating elastomer substrates reflects differences in cell stiffness. Acta Biomaterialia, 2019, 87, 256-264.	4.1	39
31	Atomic force microscopy and force spectroscopy study of Langmuirâ€"Blodgett films formed by heteroacid phospholipids of biological interest. Biochimica Et Biophysica Acta - Biomembranes, 2007, 1768, 1190-1198.	1.4	38
32	Thermal Response of Langmuir-Blodgett Films of Dipalmitoylphosphatidylcholine Studied by Atomic Force Microscopy and Force Spectroscopy. Biophysical Journal, 2007, 93, 2713-2725.	0.2	38
33	The force-dependent mechanism of DnaK-mediated mechanical folding. Science Advances, 2018, 4, eaaq0243.	4.7	37
34	The mechanical stability of proteins regulates their translocation rate into the cell nucleus. Nature Physics, 2019, 15, 973-981.	6.5	36
35	Proteoglycan Mechanics Studied by Single-molecule Force Spectroscopy of Allotypic Cell Adhesion Glycans. Journal of Biological Chemistry, 2006, 281, 5992-5999.	1.6	35
36	The Mechanochemistry of a Structural Zinc Finger. Journal of Physical Chemistry Letters, 2015, 6, 3335-3340.	2.1	31

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37	Nanomechanics of silicon surfaces with atomic force microscopy: An insight to the first stages of plastic deformation. Journal of Chemical Physics, 2005, 123, 114711.	1.2	30
38	Titration Force Microscopy on Supported Lipid Bilayers. Analytical Chemistry, 2006, 78, 61-70.	3.2	26
39	Tailoring protein nanomechanics with chemical reactivity. Nature Communications, 2017, 8, 15658.	5.8	26
40	Binding of Myomesin to Obscurin-Like-1 at the Muscle M-Band Provides a Strategy for Isoform-Specific Mechanical Protection. Structure, 2017, 25, 107-120.	1.6	25
41	Contrasting the Individual Reactive Pathways in Protein Unfolding and Disulfide Bond Reduction Observed within a Single Protein. Journal of the American Chemical Society, 2011, 133, 3104-3113.	6.6	21
42	Controlling Anomalous Diffusion in Lipid Membranes. Biophysical Journal, 2019, 116, 1085-1094.	0.2	20
43	Alkali halide nanocrystal growth and etching studied by AFM and modeled by MD simulations. Journal of Chemical Physics, 2004, 120, 2963-2971.	1.2	16
44	Mechanobiology â€" chemical origin of membrane mechanical resistance and force-dependent signaling. Current Opinion in Chemical Biology, 2015, 29, 87-93.	2.8	15
45	The Nanomechanics of Lipid Multibilayer Stacks Exhibits Complex Dynamics. Small, 2017, 13, 1700147.	5.2	14
46	Molecular Fluctuations as a Ruler of Force-Induced Protein Conformations. Nano Letters, 2021, 21, 2953-2961.	4.5	12
47	The ESCRT machinery counteracts Nesprin-2G-mediated mechanical forces during nuclear envelope repair. Developmental Cell, 2021, 56, 3192-3202.e8.	3.1	12
48	Spontaneous Dimerization of Titin Protein Z1Z2 Domains Induces Strong Nanomechanical Anchoring. Journal of Biological Chemistry, 2012, 287, 20240-20247.	1.6	11
49	Direct Observation of the Dynamics of Self-Assembly of Individual Solvation Layers in Molecularly Confined Liquids. Physical Review Letters, 2015, 114, 258303.	2.9	9
50	DNA Binding Induces a Nanomechanical Switch in the RRM1 Domain of TDP-43. Journal of Physical Chemistry Letters, 2018, 9, 3800-3807.	2.1	8
51	Force-Clamp Spectroscopy of Single Proteins. Springer Series in Chemical Physics, 2010, , 317-335.	0.2	6
52	Understanding the role of mechanics in nucleocytoplasmic transport. APL Bioengineering, 2022, 6, .	3.3	6
53	A Single-Molecule Strategy to Capture Non-native Intramolecular and Intermolecular Protein Disulfide Bridges. Nano Letters, 2022, , .	4.5	4
54	Caught in the act. Nature Chemistry, 2010, 2, 905-906.	6.6	1

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55	Protein nanomechanics: The power of stretching. Europhysics News, 2020, 51, 24-27.	0.1	1
56	Nanoindentation: From forces to energies. Materials Research Society Symposia Proceedings, 2002, 738, 621.	0.1	0
57	Protein Unfolding and Chemical Reactions Under Force: Complexity Versus Simplicity. Biophysical Journal, 2011, 100, 480a.	0.2	0
58	Linking Mechanochemistry to Protein Folding at the Single Bond Level. Biophysical Journal, 2016, 110, 181a.	0.2	0
59	Chaperone-Mediated Mechanical Protein Folding at the Single Molecule Level. Biophysical Journal, 2016, 110, 392a.	0.2	0