Wei Wang

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/210811/publications.pdf

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64	2,767	159585	182427
papers	citations	30	51
		h-index	g-index

66	66	66	3391
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Maleimideâ€“thiol adducts stabilized through stretching. Nature Chemistry, 2019, 11, 310-319.	13.6	154
2	Energy landscape views for interplays among folding, binding, and allostery of calmodulin domains. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10550-10555.	7.1	150
3	Rationally designed synthetic protein hydrogels with predictable mechanical properties. Nature Communications, 2018, 9, 620.	12.8	145
4	Stable, active CO2 reduction to formate via redox-modulated stabilization of active sites. Nature Communications, 2021, 12, 5223.	12.8	145
5	Energy landscape and multiroute folding of topologically complex proteins adenylate kinase and 2ouf-knot. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 17789-17794.	7.1	134
6	Stretchable hydrogels with low hysteresis and anti-fatigue fracture based on polyprotein cross-linkers. Nature Communications, 2020, 11, 4032.	12.8	129
7	Hydrogel tapes for fault-tolerant strong wet adhesion. Nature Communications, 2021, 12, 7156.	12.8	122
8	Single Molecule Evidence for the Adaptive Binding of DOPA to Different Wet Surfaces. Langmuir, 2014, 30, 4358-4366.	3.5	116
9	Metal-Coupled Folding of Cys₂His₂ Zinc-Finger. Journal of the American Chemical Society, 2008, 130, 892-900.	13.7	115
10	Molecular engineering of metal coordination interactions for strong, tough, and fast-recovery hydrogels. Science Advances, 2020, 6, eaaz9531.	10.3	111
11	Polymerâ€Supramolecular Polymer Doubleâ€Network Hydrogel. Advanced Functional Materials, 2016, 26, 9044-9052.	14.9	106
12	Electrically Controllable Actuators Based on Supramolecular Peptide Hydrogels. Advanced Functional Materials, 2016, 26, 9053-9062.	14.9	102
13	Confinement effects on the kinetics and thermodynamics of protein dimerization. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 5517-5522.	7.1	69
14	Mesoscale Graphene-like Honeycomb Mono- and Multilayers Constructed via Self-Assembly of Coclusters. Journal of the American Chemical Society, 2018, 140, 1805-1811.	13.7	69
15	Single-Molecule Mechanics of Catechol-Iron Coordination Bonds. ACS Biomaterials Science and Engineering, 2017, 3, 979-989.	5.2	67
16	Tunable Mechanical and Optoelectronic Properties of Organic Cocrystals by Unexpected Stacking Transformation from H- to J- and X-Aggregation. ACS Nano, 2020, 14, 10704-10715.	14.6	61
17	Single-molecule study of the synergistic effects of positive charges and Dopa for wet adhesion. Journal of Materials Chemistry B, 2017, 5, 4416-4420.	5.8	57
18	Atomistic Picture for the Folding Pathway of a Hybrid-1 Type Human Telomeric DNA G-quadruplex. PLoS Computational Biology, 2014, 10, e1003562.	3.2	55

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19	Strong dual-crosslinked hydrogels for ultrasound-triggered drug delivery. Nano Research, 2019, 12, 115-119.	10.4	54
20	Principles Governing Catalytic Activity of Self-Assembled Short Peptides. Journal of the American Chemical Society, 2019, 141, 223-231.	13.7	47
21	Structure and sequence features of mussel adhesive protein lead to its salt-tolerant adhesion ability. Science Advances, 2020, 6, .	10.3	47
22	Molecular simulations of metal-coupled protein folding. Current Opinion in Structural Biology, 2015, 30, 25-31.	5.7	45
23	Mechanistic insight of photoâ€induced aggregation of chicken egg white lysozyme: The interplay between hydrophobic interactions and formation of intermolecular disulfide bonds. Proteins: Structure, Function and Bioinformatics, 2011, 79, 2505-2516.	2.6	41
24	An enzyme-assisted nanoparticle crosslinking approach to enhance the mechanical strength of peptide-based supramolecular hydrogels. Chemical Communications, 2013, 49, 8653.	4.1	40
25	Stretchable and self-healable hydrogel artificial skin. National Science Review, 2022, 9, .	9.5	40
26	Surface-assisted assembly of a histidine-rich lipidated peptide for simultaneous exfoliation of graphite and functionalization of graphene nanosheets. Nanoscale, 2019, 11, 2999-3012.	5.6	39
27	Single-molecule force spectroscopy reveals force-enhanced binding of calcium ions by gelsolin. Nature Communications, 2014, 5, 4623.	12.8	36
28	Designing the mechanical properties of peptide-based supramolecular hydrogels for biomedical applications. Science China: Physics, Mechanics and Astronomy, 2014, 57, 849-858.	5.1	36
29	Single Molecule Study of Force-Induced Rotation of Carbonâ€“Carbon Double Bonds in Polymers. ACS Nano, 2017, 11, 194-203.	14.6	34
30	Multiporous Supramolecular Microspheres for Artificial Photosynthesis. Chemistry of Materials, 2017, 29, 4454-4460.	6.7	32
31	Singleâ€Molecule Force Spectroscopy Reveals Multiple Binding Modes between DOPA and Different Rutile Surfaces. ChemPhysChem, 2017, 18, 1466-1469.	2.1	29
32	Bioinspired Ice Growth Inhibitors Based on Self-Assembling Peptides. ACS Macro Letters, 2019, 8, 1383-1390.	4.8	27
33	Single-Molecule Experiments Reveal the Flexibility of a Per-ARNT-Sim Domain and the Kinetic Partitioning in the Unfolding Pathway under Force. Biophysical Journal, 2012, 102, 2149-2157.	0.5	25
34	Hidden Intermediate State and Second Pathway Determining Folding and Unfolding Dynamics of GB1 Protein at Low Forces. Physical Review Letters, 2020, 125, 198101.	7.8	24
35	Direct Measurement of Length Scale Dependence of the Hydrophobic Free Energy of a Single Collapsed Polymer Nanosphere. Physical Review Letters, 2019, 122, 047801.	7.8	21
36	Regulating Mechanical Properties of <scp>Polymerâ€Supramolecular Doubleâ€Network</scp> Hydrogel by Supramolecular Selfâ€assembling Structures. Chinese Journal of Chemistry, 2021, 39, 2711-2717.	4.9	21

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37	Mg²⁺â€Dependent High Mechanical Anisotropy of Threeâ€Wayâ€Junction pRNA as Revealed by Singleâ€Molecule Force Spectroscopy. Angewandte Chemie - International Edition, 2017, 56, 9376-9380.	13.8	20
38	An ester bond underlies the mechanical strength of a pathogen surface protein. Nature Communications, 2021, 12, 5082.	12.8	20
39	Strong and Reversible Covalent Double Network Hydrogel Based on Forceâ€Coupled Enzymatic Reactions. Angewandte Chemie - International Edition, 2022, 61, .	13.8	20
40	Singleâ€Molecule Force Spectroscopy Reveals Selfâ€Assembly Enhanced Surface Binding of Hydrophobins. Chemistry - A European Journal, 2018, 24, 9224-9228.	3.3	16
41	Low Folding Cooperativity of Hp35 Revealed by Single-Molecule Force Spectroscopy and Molecular Dynamics Simulation. Biophysical Journal, 2012, 102, 1944-1951.	0.5	14
42	Tuning of the dynamics of metal ion crosslinked hydrogels by network structures. Soft Matter, 2019, 15, 4423-4427.	2.7	14
43	Quantifying cation-Ï€ interactions in marine adhesive proteins using single-molecule force spectroscopy. , 2022, 1, 100005.		12
44	Chirality-Dependent Adsorption between Amphipathic Peptide and POPC Membrane. International Journal of Molecular Sciences, 2019, 20, 4760.	4.1	11
45	Role of substrate-product frustration on enzyme functional dynamics. Physical Review E, 2019, 100, 052409.	2.1	9
46	Insights into the Kinetic Partitioning Folding Dynamics of the Human Telomeric G-Quadruplex from Molecular Simulations and Machine Learning. Journal of Chemical Theory and Computation, 2020, 16, 5936-5947.	5.3	8
47	Activation Pathways and Free Energy Landscapes of the SARS-CoV-2 Spike Protein. ACS Omega, 2021, 6, 23432-23441.	3.5	8
48	Fluorination Increases Hydrophobicity at the Macroscopic Level but not at the Microscopic Level. Chinese Physics Letters, 2022, 39, 038701.	3.3	8
49	Mechanochemical Lithography. Journal of the American Chemical Society, 2022, 144, 9949-9958.	13.7	8
50	Bioinspired Suprahelical Frameworks as Scaffolds for Artificial Photosynthesis. ACS Applied Materials & Interfaces, 2020, 12, 45192-45201.	8.0	7
51	Smart Adhesive Peptide Nanofibers for Cell Capture and Release. ACS Biomaterials Science and Engineering, 2020, 6, 6800-6807.	5.2	6
52	Strong and Injectable Hydrogels Based on Multivalent Metal Ion-Peptide Cross-linking. Chemical Research in Chinese Universities, 2020, 36, 962-969.	2.6	6
53	Consequences of Energetic Frustration on the Ligand-Coupled Folding/Dimerization Dynamics of Allosteric Protein S100A12. Journal of Physical Chemistry B, 2017, 121, 9799-9806.	2.6	5
54	H₂ Activation by Heterobimetallic Gold(I)/Platinum(0) Complex: Theoretical Understanding of Electronic Processes and Prediction on More Active Species. Journal of Physical Chemistry C, 2020, 124, 4525-4533.	3.1	5

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55	Origin of subdiffusions in proteins: Insight from peptide systems. Physical Review E, 2020, 102, 062424.	2.1	5
56	Tuning Strain Stiffening of Protein Hydrogels by Charge Modification. International Journal of Molecular Sciences, 2022, 23, 3032.	4.1	5
57	Consequences of Hydrophobic Nanotube Binding on the Functional Dynamics of Signaling Protein Calmodulin. ACS Omega, 2019, 4, 10494-10501.	3.5	3
58	Modeling hydrogen exchange of proteins by a multiscale method. Chinese Physics B, 0, , .	1.4	3
59	Binding of Copper Ions with Octapeptide Region in Prion Protein: Simulations with Charge Transfer Model. Journal of Physical Chemistry B, 2019, 123, 5216-5228.	2.6	2
60	Temperature Dependence of Internal Friction of Peptides. Journal of Physical Chemistry B, 2021, 125, 2821-2832.	2.6	2
61	Enhanced sampling method with coarse graining of conformational space. Physical Review E, 2021, 103, 032404.	2.1	2
62	Temperature and Guanidine Hydrochloride Effects on the Folding Thermodynamics of WW Domain and Variants. Journal of Physical Chemistry B, 2021, 125, 11386-11391.	2.6	2
63	Strong and Reversible Covalent Double Network Hydrogel Based on Forceâ€Coupled Enzymatic Reactions. Angewandte Chemie, 2022, 134, .	2.0	1
64	A bottom-up design strategy for controllable self-assembly based on the isotropic double-well potential. Physical Chemistry Chemical Physics, 2022, , .	2.8	0