Matthew T Auton

List of Publications by Year
in descending order

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47	2,151	361413	243625
papers	citations	20	44
		h-index	g-index

47	47	47	1901
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Predicting the energetics of osmolyte-induced protein folding/unfolding. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 15065-15068.	7.1	399
2	Anatomy of energetic changes accompanying urea-induced protein denaturation. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15317-15322.	7.1	263
3	Osmolyte effects on protein stability and solubility: A balancing act between backbone and side-chains. Biophysical Chemistry, 2011, 159, 90-99.	2.8	221
4	Additive Transfer Free Energies of the Peptide Backbone Unit That Are Independent of the Model Compound and the Choice of Concentration Scaleâ€. Biochemistry, 2004, 43, 1329-1342.	2.5	212
5	Structural thermodynamics of protein preferential solvation: Osmolyte solvation of proteins, aminoacids, and peptides. Proteins: Structure, Function and Bioinformatics, 2008, 73, 802-813.	2.6	154
6	Application of the Transfer Model to Understand How Naturally Occurring Osmolytes Affect Protein Stability. Methods in Enzymology, 2007, 428, 397-418.	1.0	99
7	Metrics that Differentiate the Origins of Osmolyte Effects on Protein Stability: A Test of the Surface Tension Proposal. Journal of Molecular Biology, 2006, 361, 983-992.	4.2	81
8	Conformational Stability and Domain Unfolding of the Von Willebrand Factor A Domains. Journal of Molecular Biology, 2007, 366, 986-1000.	4.2	79
9	Kinetic Control in Protein Folding for Light Chain Amyloidosis and the Differential Effects of Somatic Mutations. Journal of Molecular Biology, 2014, 426, 347-361.	4.2	51
10	Destabilization of the A1 Domain in von Willebrand Factor Dissociates the A1A2A3 Tri-domain and Provokes Spontaneous Binding to Glycoprotein Ibα and Platelet Activation under Shear Stress. Journal of Biological Chemistry, 2010, 285, 22831-22839.	3.4	43
11	Thermodynamic and fibril formation studies of full length immunoglobulin light chain AL-09 and its germline protein using scan rate dependent thermal unfolding. Biophysical Chemistry, 2015, 207, 13-20.	2.8	42
12	N-terminal Flanking Region of A1 Domain in von Willebrand Factor Stabilizes Structure of A1A2A3 Complex and Modulates Platelet Activation under Shear Stress. Journal of Biological Chemistry, 2012, 287, 14579-14585.	3.4	40
13	Changes in Thermodynamic Stability of von Willebrand Factor Differentially Affect the Force-Dependent Binding to Platelet GPIbα. Biophysical Journal, 2009, 97, 618-627.	0.5	38
14	Enhanced Local Disorder in a Clinically Elusive von Willebrand Factor Provokes High-Affinity Platelet Clumping. Journal of Molecular Biology, 2017, 429, 2161-2177.	4.2	36
15	Misfolding of vWF to Pathologically Disordered Conformations Impacts the Severity of von Willebrand Disease. Biophysical Journal, 2014, 107, 1185-1195.	0.5	34
16	The Mechanism of VWF-Mediated Platelet GPIbα Binding. Biophysical Journal, 2010, 99, 1192-1201.	0.5	33
17	The linker between the D3 and A1 domains of vWF suppresses A1â€GPIbα catch bonds by siteâ€specific binding to the A1 domain. Protein Science, 2013, 22, 1049-1059.	7.6	31
18	Alanine and proline content modulate global sensitivity to discrete perturbations in disordered proteins. Proteins: Structure, Function and Bioinformatics, 2014, 82, 3373-3384.	2.6	26

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19	Protein Stability in the Presence of Cosolutes. Methods in Enzymology, 2011, 492, 61-125.	1.0	25
20	The von Willebrand factor Tyr2561 allele is a gain-of-function variant and a risk factor for early myocardial infarction. Blood, 2019, 133, 356-365.	1.4	24
21	Mutational Constraints on Local Unfolding Inhibit the Rheological Adaptation of von Willebrand Factor. Journal of Biological Chemistry, 2016, 291, 3848-3859.	3.4	23
22	Neutrophil Extracellular Trap Formation and Syndecan-1 Shedding Are Increased After Trauma. Shock, 2021, 56, 433-439.	2.1	23
23	A molten globule intermediate of the Von Willebrand factor A1 domain firmly tethers platelets under shear flow. Proteins: Structure, Function and Bioinformatics, 2014, 82, 867-878.	2.6	21
24	Ureaâ€temperature phase diagrams capture the thermodynamics of denatured state expansion that accompany protein unfolding. Protein Science, 2013, 22, 1147-1160.	7.6	14
25	Structural Origins of Misfolding Propensity in the Platelet Adhesive Von Willebrand Factor A1 Domain. Biophysical Journal, 2015, 109, 398-406.	0.5	14
26	Glycosylation sterically inhibits platelet adhesion to von Willebrand factor without altering intrinsic conformational dynamics. Journal of Thrombosis and Haemostasis, 2020, 18, 79-90.	3.8	14
27	The Von Willebrand Factor A1â€“Collagen III Interaction Is Independent of Conformation and Type 2 Von Willebrand Disease Phenotype. Journal of Molecular Biology, 2017, 429, 32-47.	4.2	13
28	MeV-Stealth: A CD46-specific oncolytic measles virus resistant to neutralization by measles-immune human serum. PLoS Pathogens, 2021, 17, e1009283.	4.7	13
29	The Chaperonin GroEL: A Versatile Tool for Applied Biotechnology Platforms. Frontiers in Molecular Biosciences, 2018, 5, 46.	3.5	10
30	The effects of Nâ€ethylâ€Nâ€²â€methyl imidazolium chloride on the solubility, stability and aggregation of tcâ€r<scp>PA</scp>. FEBS Journal, 2014, 281, 1738-1749.	4.7	8
31	Evidence for the Misfolding of the A1 Domain within Multimeric von Willebrand Factor in Type 2 von Willebrand Disease. Journal of Molecular Biology, 2020, 432, 305-323.	4.2	8
32	Quantification of von Willebrand factor and ADAMTS-13 after traumatic injury: a pilot study. Trauma Surgery and Acute Care Open, 2021, 6, e000703.	1.6	8
33	Free Cholesterol Determines Reassembled High-Density Lipoprotein Phospholipid Phase Structure and Stability. Biochemistry, 2013, 52, 4324-4330.	2.5	7
34	Data on the purification and crystallization of the loss-of-function von Willebrand disease variant (p.Gly1324Ser) of the von Willebrand factor A1 domain. Data in Brief, 2016, 7, 1700-1706.	1.0	7
35	Chaperonin-Based Biolayer Interferometry To Assess the Kinetic Stability of Metastable, Aggregation-Prone Proteins. Biochemistry, 2016, 55, 4885-4908.	2.5	7
36	Thrombin Generation Kinetics are Predictive of Rapid Transfusion in Trauma Patients Meeting Critical Administration Threshold. Shock, 2021, 55, 321-325.	2.1	6

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37	Plateletâ€type von Willebrand disease: Local disorder of the platelet GPI bÎ± Î²â€switch drives highâ€affinity binding to von Willebrand factor. Journal of Thrombosis and Haemostasis, 2019, 17, 2022-2034.	3.8	5
38	Arabinose Alters Both Local and Distal Hâ€“D Exchange Rates in the Escherichia coli AraC Transcriptional Regulator. Biochemistry, 2019, 58, 2875-2882.	2.5	4
39	A p.Arg127Gln variant in GPIbÎ± LRR5 allosterically enhances affinity for VWF: a novel form of platelet-type VWD. Blood Advances, 2021, , .	5.2	4
40	â€œCooperative collapseâ€•of the denatured state revealed through Clausiusâ€Clapeyron analysis of protein denaturation phase diagrams. Biopolymers, 2018, 109, e23106.	2.4	3
41	Gain-of-Function Variant p.Pro2555Arg of von Willebrand Factor Increases Aggregate Size through Altering Stem Dynamics. Thrombosis and Haemostasis, 2020, , .	3.4	3
42	Oxidative refolding of rPA in <scp>l</scp>â€ArgHCl and in ionic liquids: A correlation between hydrophobicity, salt effects, and refolding yield. Biopolymers, 2014, 101, 1129-1140.	2.4	2
43	Comment on â€œOsmolyte Effects on Monoclonal Antibody Stability and Concentration-Dependent Protein Interactions with Water and Common Osmolytesâ€• Journal of Physical Chemistry B, 2016, 120, 11331-11332.	2.6	2
44	The Von Willebrand Factor Tyr2561 Allele Is a Gain-of-Function Variant and a Potential Risk Factor for Early Myocardial Infarction. Blood, 2018, 132, 2459-2459.	1.4	1
45	Untangling a Structurally Resolved Protein Folding Intermediate. Biophysical Journal, 2016, 110, 1205-1206.	0.5	0
46	Abstract 105: Free Cholesterol Determines the Phospholipid Domain Size and Stability of rHDL. Arteriosclerosis, Thrombosis, and Vascular Biology, 2012, 32, .	2.4	0
47	ThANNCs for kinetically optimizing ITC. Biophysical Journal, 2022, , .	0.5	0