Evan T Powers

List of Publications by Year
in descending order

86	10,560	41344 49	53230 85
papers	citations	h-index	g-index

97	97	97	11730
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Pharmacologic IRE1/XBP1s activation promotes systemic adaptive remodeling in obesity. Nature Communications, 2022, 13, 608.	12.8	31
2	Response. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2021, 28, 140-141.	3.0	1
3	Blinded potency comparison of transthyretin kinetic stabilisers by subunit exchange in human plasma. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2021, 28, 24-29.	3.0	22
4	Stereoelectronic effects in stabilizing proteinâ€“N-glycan interactions revealed by experiment and machine learning. Nature Chemistry, 2021, 13, 480-487.	13.6	13
5	The Proteome Folding Problem and Cellular Proteostasis. Journal of Molecular Biology, 2021, 433, 167197.	4.2	22
6	ATF6 is essential for human cone photoreceptor development. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	31
7	From uncovering the mechanism of transthyretin aggregation to the drug tafamidis for ameliorating neurodegeneration and cardiomyopathy. , 2021, , 65-103.		1
8	Pharmacologic IRE1/XBP1s activation confers targeted ER proteostasis reprogramming. Nature Chemical Biology, 2020, 16, 1052-1061.	8.0	90
9	Defining the Functional Targets of Capâ€¯nâ€™collar Transcription Factors NRF1, NRF2, and NRF3. Antioxidants, 2020, 9, 1025.	5.1	29
10	A designed protein binding-pocket to control excited-state intramolecular proton transfer fluorescence. Organic and Biomolecular Chemistry, 2019, 17, 1076-1080.	2.8	13
11	Kinetic versus thermodynamic control of mutational effects on protein homeostasis: A perspective from computational modeling and experiment. Protein Science, 2019, 28, 1324-1339.	7.6	5
12	Deconvoluting Stress-Responsive Proteostasis Signaling Pathways for Pharmacologic Activation Using Targeted RNA Sequencing. ACS Chemical Biology, 2019, 14, 784-795.	3.4	45
13	Predictive model of response to tafamidis in hereditary ATTR polyneuropathy. JCI Insight, 2019, 4, .	5.0	53
14	The unfolded protein response regulator ATF6 promotes mesodermal differentiation. Science Signaling, 2018, 11, .	3.6	54
15	â€œInverse Drug Discoveryâ€•Strategy To Identify Proteins That Are Targeted by Latent Electrophiles As Exemplified by Aryl Fluorosulfates. Journal of the American Chemical Society, 2018, 140, 200-210.	13.7	206
16	Translation efficiency is maintained at elevated temperature in Escherichia coli. Journal of Biological Chemistry, 2018, 293, 777-793.	3.4	24
17	Pharmacologic ATF6 activating compounds are metabolically activated to selectively modify endoplasmic reticulum proteins. ELife, 2018, 7, .	6.0	85
18	Ligand-promoted protein folding by biased kinetic partitioning. Nature Chemical Biology, 2017, 13, 369-371.	8.0	15

#	Article	IF	Citations
19	Semi-quantitative models for identifying potent and selective transthyretin amyloidogenesis inhibitors. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 3441-3449.	2.2	8
20	Peptide probes detect misfolded transthyretin oligomers in plasma of hereditary amyloidosis patients. Science Translational Medicine, 2017, 9, .	12.4	44
21	Using Cooperatively Folded Peptides To Measure Interaction Energies and Conformational Propensities. Accounts of Chemical Research, 2017, 50, 1875-1882.	15.6	18
22	The endoplasmic reticulum <scp>HSP</scp>40 coâ€chaperone <scp>ER</scp>dj3/<scp>DNAJB</scp>11 assembles and functions as a tetramer. EMBO Journal, 2017, 36, 2296-2309.	7.8	38
23	Small molecule proteostasis regulators that reprogram the ER to reduce extracellular protein aggregation. ELife, 2016, 5, .	6.0	185
24	Arylfluorosulfates Inactivate Intracellular Lipid Binding Protein(s) through Chemoselective SuFEx Reaction with a Binding Site Tyr Residue. Journal of the American Chemical Society, 2016, 138, 7353-7364.	13.7	212
25	Stabilizing the C_H2 Domain of an Antibody by Engineering in an Enhanced Aromatic Sequon. ACS Chemical Biology, 2016, 11, 1852-1861.	3.4	40
26	The Dependence of Carbohydrateâ€“Aromatic Interaction Strengths on the Structure of the Carbohydrate. Journal of the American Chemical Society, 2016, 138, 7636-7648.	13.7	44
27	Enhanced Aromatic Sequons Increase Oligosaccharyltransferase Glycosylation Efficiency and Glycan Homogeneity. Chemistry and Biology, 2015, 22, 1052-1062.	6.0	36
28	Individual and Collective Contributions of Chaperoning and Degradation to Protein Homeostasis in E.Âcoli. Cell Reports, 2015, 11, 321-333.	6.4	39
29	Targeting protein aggregation for the treatment of degenerative diseases. Nature Reviews Drug Discovery, 2015, 14, 759-780.	46.4	338
30	Fluorogenic small molecules requiring reaction with a specific protein to create a fluorescent conjugate for biological imagingâ€“what we know and what we need to learn. Biopolymers, 2014, 101, 484-495.	2.4	8
31	The intrinsic and extrinsic effects of N-linked glycans on glycoproteostasis. Nature Chemical Biology, 2014, 10, 902-910.	8.0	166
32	Characterizing the Altered Cellular Proteome Induced by the Stress-Independent Activation of Heat Shock Factor 1. ACS Chemical Biology, 2014, 9, 1273-1283.	3.4	51
33	Quantification of Transthyretin Kinetic Stability in Human Plasma Using Subunit Exchange. Biochemistry, 2014, 53, 1993-2006.	2.5	62
34	Diversity in the origins of proteostasis networks â€" a driver for protein function in evolution. Nature Reviews Molecular Cell Biology, 2013, 14, 237-248.	37.0	204
35	Aromatic Sulfonyl Fluorides Covalently Kinetically Stabilize Transthyretin to Prevent Amyloidogenesis while Affording a Fluorescent Conjugate. Journal of the American Chemical Society, 2013, 135, 5656-5668.	13.7	142
36	Structural and Energetic Basis of Carbohydrateâ€“Aromatic Packing Interactions in Proteins. Journal of the American Chemical Society, 2013, 135, 9877-9884.	13.7	85

#	Article	IF	Citations
37	AÎ² induces astrocytic glutamate release, extrasynaptic NMDA receptor activation, and synaptic loss. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, E2518-27.	7.1	495
38	AG10 inhibits amyloidogenesis and cellular toxicity of the familial amyloid cardiomyopathy-associated V122I transthyretin. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 9992-9997.	7.1	120
39	The Transthyretin Amyloidoses: From Delineating the Molecular Mechanism of Aggregation Linked to Pathology to a Regulatory-Agency-Approved Drug. Journal of Molecular Biology, 2012, 421, 185-203.	4.2	267
40	FoldEco: A Model for Proteostasis in E.Âcoli. Cell Reports, 2012, 1, 265-276.	6.4	72
41	Nâ€glycosylation of enhanced aromatic sequons to increase glycoprotein stability. Biopolymers, 2012, 98, 195-211.	2.4	58
42	Tafamidis, a potent and selective transthyretin kinetic stabilizer that inhibits the amyloid cascade. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 9629-9634.	7.1	582
43	Heparin Binds 8 kDa Gelsolin Cross-Î²-Sheet Oligomers and Accelerates Amyloidogenesis by Hastening Fibril Extension. Biochemistry, 2011, 50, 2486-2498.	2.5	42
44	N-PEGylation of a Reverse Turn Is Stabilizing in Multiple Sequence Contexts, unlike N-GlcNAcylation. ACS Chemical Biology, 2011, 6, 1188-1192.	3.4	17
45	Protein Native-State Stabilization by Placing Aromatic Side Chains in N-Glycosylated Reverse Turns. Science, 2011, 331, 571-575.	12.6	157
46	Amyloid-Î² forms fibrils by nucleated conformational conversion of oligomers. Nature Chemical Biology, 2011, 7, 602-609.	8.0	352
47	Protection from the outside. Nature, 2011, 471, 42-43.	27.8	10
48	Glycosylation of the enhanced aromatic sequon is similarly stabilizing in three distinct reverse turn contexts. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 14127-14132.	7.1	61
49	Potent Kinetic Stabilizers That Prevent Transthyretin-Mediated Cardiomyocyte Proteotoxicity. Science Translational Medicine, 2011, 3, 97ra81.	12.4	61
50	Thermodynamic stability and denaturation kinetics of a benign natural transthyretin mutant identified in a Danish kindred. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 2011, 18, 35-46.	3.0	14
51	Context-Dependent Effects of Asparagine Glycosylation on Pin WW Folding Kinetics and Thermodynamics. Journal of the American Chemical Society, 2010, 132, 15359-15367.	13.7	69
52	Evaluating Î²-turn mimics as Î²-sheet folding nucleators. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 11067-11072.	7.1	97
53	The core trisaccharide of an N-linked glycoprotein intrinsically accelerates folding and enhances stability. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 3131-3136.	7.1	206
54	The proteostasis boundary in misfolding diseases of membrane traffic. FEBS Letters, 2009, 583, 2639-2646.	2.8	76

#	Article	IF	Citations
55	Localized thermodynamic coupling between hydrogen bonding and microenvironment polarity substantially stabilizes proteins. Nature Structural and Molecular Biology, 2009, 16, 684-690.	8.2	178
56	The 8 and 5 kDa Fragments of Plasma Gelsolin Form Amyloid Fibrils by a Nucleated Polymerization Mechanism, while the 68 kDa Fragment Is Not Amyloidogenic. Biochemistry, 2009, 48, 11370-11380.	2.5	33
57	Site-specific modification of Alzheimer's peptides by cholesterol oxidation products enhances aggregation energetics and neurotoxicity. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 18563-18568.	7.1	76
58	Biological and Chemical Approaches to Diseases of Proteostasis Deficiency. Annual Review of Biochemistry, 2009, 78, 959-991.	11.1	1,035
59	Understanding the mechanism of Î²â€sheet folding from a chemical and biological perspective. Biopolymers, 2008, 90, 751-758.	2.4	48
60	Mechanisms of Protein Fibril Formation: Nucleated Polymerization with Competing Off-Pathway Aggregation. Biophysical Journal, 2008, 94, 379-391.	0.5	182
61	Costly Mistakes: Translational Infidelity and Protein Homeostasis. Cell, 2008, 134, 204-206.	28.9	25
62	Quantification of the Thermodynamically Linked Quaternary and Tertiary Structural Stabilities of Transthyretin and Its Disease-Associated Variants: The Relationship between Stability and Amyloidosis. Biochemistry, 2008, 47, 6969-6984.	2.5	115
63	An Adaptable Standard for Protein Export from the Endoplasmic Reticulum. Cell, 2007, 131, 809-821.	28.9	147
64	The Oxidative Stress Metabolite 4-Hydroxynonenal Promotes Alzheimer Protofibril Formationâ€. Biochemistry, 2007, 46, 1503-1510.	2.5	157
65	The Kinetics of Nucleated Polymerizations at High Concentrations: Amyloid Fibril Formation Near and Above the â€œSupercritical Concentrationâ€. Biophysical Journal, 2006, 91, 122-132.	0.5	188
66	Small Molecule Oxidation Products Trigger Disease-Associated Protein Misfolding. Accounts of Chemical Research, 2006, 39, 611-619.	15.6	99
67	Elevated levels of oxidized cholesterol metabolites in Lewy body disease brains accelerate Î±-synuclein fibrilization. Nature Chemical Biology, 2006, 2, 249-253.	8.0	312
68	Î²-Sheet folding mechanisms from perturbation energetics. Current Opinion in Structural Biology, 2006, 16, 94-101.	5.7	37
69	Design, synthesis, and evaluation of oxazole transthyretin amyloidogenesis inhibitors. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 1075-1078.	2.2	51
70	Influence of the N-terminal domain on the aggregation properties of the prion protein. Protein Science, 2005, 14, 2154-2166.	7.6	63
71	Oxidative Metabolites Accelerate Alzheimer's Amyloidogenesis by a Two-Step Mechanism, Eliminating the Requirement for Nucleationâ€. Biochemistry, 2005, 44, 4977-4983.	2.5	137
72	Backboneâ€“Backbone Hâ€Bonds Make Contextâ€Dependent Contributions to Protein Folding Kinetics and Thermodynamics: Lessons from Amideâ€toâ€Ester Mutations. Advances in Protein Chemistry, 2005, 72, 39-78.	4.4	60

#	Article	IF	Citations
73	Potent and Selective Structure-Based Dibenzofuran Inhibitors of Transthyretin Amyloidogenesis:Â Kinetic Stabilization of the Native State. Journal of the American Chemical Society, 2005, 127, 6662-6671.	13.7	76
74	Partitioning Conformational Intermediates between Competing Refolding and Aggregation Pathways:Â Insights into Transthyretin Amyloid Diseaseâ€. Biochemistry, 2005, 44, 16612-16623.	2.5	53
75	Context-dependent contributions of backbone hydrogen bonding to Î²-sheet folding energetics. Nature, 2004, 430, 101-105.	27.8	260
76	Metabolite-initiated protein misfolding may trigger Alzheimer's disease. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4752-4757.	7.1	204
77	Transthyretin Aggregation under Partially Denaturing Conditions Is a Downhill Polymerizationâ€. Biochemistry, 2004, 43, 7365-7381.	2.5	303
78	Benzoxazoles as Transthyretin Amyloid Fibril Inhibitors: Synthesis, Evaluation, and Mechanism of Action. Angewandte Chemie - International Edition, 2003, 42, 2758-2761.	13.8	204
79	Prevention of Transthyretin Amyloid Disease by Changing Protein Misfolding Energetics. Science, 2003, 299, 713-716.	12.6	491
80	ALS Mutants of Human Superoxide Dismutase Form Fibrous Aggregates Via Framework Destabilization. Journal of Molecular Biology, 2003, 332, 601-615.	4.2	183
81	A Perspective on Mechanisms of Protein Tetramer Formation. Biophysical Journal, 2003, 85, 3587-3599.	0.5	43
82	Sequence-dependent denaturation energetics: A major determinant in amyloid disease diversity. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 16427-16432.	7.1	320
83	Synthesis, Structure, and Activity of Diclofenac Analogues as Transthyretin Amyloid Fibril Formation Inhibitors. Journal of Medicinal Chemistry, 2002, 45, 321-332.	6.4	134
84	Ordered Langmuir-Blodgett Films of Amphiphilic Î²-Hairpin Peptides Imaged by Atomic Force Microscopy. Angewandte Chemie - International Edition, 2002, 41, 127-130.	13.8	51
85	Incorporating Î²-Turns and a Turn Mimetic out of Context in Loop 1 of the WW Domain Affords Cooperatively Folded Î²-Sheets. Journal of the American Chemical Society, 2001, 123, 5206-5212.	13.7	64
86	Proteostasis Modulation Prevents Photoreceptor Pathology in Retinal Organoids. SSRN Electronic Journal, 0, , .	0.4	1