

Steven S Plotkin

List of Publications by Year in descending order

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44
papers

2,161
citations

361413

20
h-index

254184

43
g-index

49
all docs

49
docs citations

49
times ranked

2227
citing authors

#	ARTICLE	IF	CITATIONS
1	Intercellular propagated misfolding of wild-type Cu/Zn superoxide dismutase occurs via exosome-dependent and -independent mechanisms. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3620-3625.	7.1	373
2	Intermolecular transmission of superoxide dismutase 1 misfolding in living cells. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16398-16403.	7.1	234
3	Understanding protein folding with energy landscape theory Part I: Basic concepts. Quarterly Reviews of Biophysics, 2002, 35, 111-167.	5.7	179
4	The effects of nonnative interactions on protein folding rates: Theory and simulation. Protein Science, 2004, 13, 1750-1766.	7.6	158
5	Statistical mechanics of a correlated energy landscape model for protein folding funnels. Journal of Chemical Physics, 1997, 106, 2932-2948.	3.0	145
6	Prion-Like Propagation of Protein Misfolding and Aggregation in Amyotrophic Lateral Sclerosis. Frontiers in Molecular Neuroscience, 2019, 12, 262.	2.9	101
7	Non-Markovian Configurational Diffusion and Reaction Coordinates for Protein Folding. Physical Review Letters, 1998, 80, 5015-5018.	7.8	96
8	Understanding protein folding with energy landscape theory Part II: Quantitative aspects. Quarterly Reviews of Biophysics, 2002, 35, 205-286.	5.7	91
9	Correlated energy landscape model for finite, random heteropolymers. Physical Review E, 1996, 53, 6271-6296.	2.1	88
10	Passive immunotherapies targeting A β and tau in Alzheimer's disease. Neurobiology of Disease, 2020, 144, 105010.	4.4	81
11	Speeding protein folding beyond the G γ model: How a little frustration sometimes helps. Proteins: Structure, Function and Bioinformatics, 2001, 45, 337-345.	2.6	61
12	SOD1 exhibits allosteric frustration to facilitate metal binding affinity. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 3871-3876.	7.1	46
13	A theory for the anisotropic and inhomogeneous dielectric properties of proteins. Physical Chemistry Chemical Physics, 2011, 13, 6286.	2.8	38
14	A Rationally Designed Humanized Antibody Selective for Amyloid Beta Oligomers in Alzheimer's Disease. Scientific Reports, 2019, 9, 9870.	3.3	35
15	Structural and energetic heterogeneity in protein folding. I. Theory. Journal of Chemical Physics, 2002, 116, 5263.	3.0	32
16	Electrostatics in the stability and misfolding of the prion protein: salt bridges, self energy, and solvation This paper is one of a selection of papers published in this special issue entitled "Canadian Society of Biochemistry, Molecular & Cellular Biology 52nd Annual Meeting" Protein Folding: Principles and Diseases and has undergone the Journal's usual peer review process.. Biochemistry and Cell Biology, 2010, 88, 371-381.	2.0	32
17	As Simple As Possible, but Not Simpler: Exploring the Fidelity of Coarse-Grained Protein Models for Simulated Force Spectroscopy. PLoS Computational Biology, 2016, 12, e1005211.	3.2	32
18	Buffered energy landscapes: Another solution to the kinetic paradoxes of protein folding. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 4417-4422.	7.1	29

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19	Prediction of Misfolding-Specific Epitopes in SOD1 Using Collective Coordinates. <i>Journal of Physical Chemistry B</i> , 2018, 122, 11662-11676.	2.6	27
20	Mechanical Probes of SOD1 Predict Systematic Trends in Metal and Dimer Affinity of ALS-Associated Mutants. <i>Journal of Molecular Biology</i> , 2013, 425, 850-874.	4.2	24
21	Emerging Developments in Targeting Proteotoxicity in Neurodegenerative Diseases. <i>CNS Drugs</i> , 2019, 33, 883-904.	5.9	23
22	Immunological mimicry of PrPC-PrP ^{Sc} interactions: antibody-induced PrP misfolding. <i>Protein Engineering, Design and Selection</i> , 2009, 22, 523-529.	2.1	21
23	A Rational Structured Epitope Defines a Distinct Subclass of Toxic Amyloid-beta Oligomers. <i>ACS Chemical Neuroscience</i> , 2018, 9, 1591-1606.	3.5	21
24	CuATSM Protects Against the <i>In Vitro</i> Cytotoxicity of Wild-Type-Like Copper-Zinc Superoxide Dismutase Mutants but not Mutants That Disrupt Metal Binding. <i>ACS Chemical Neuroscience</i> , 2019, 10, 1555-1564.	3.5	21
25	Purification and Structural Characterization of Aggregation-Prone Human TDP-43 Involved in Neurodegenerative Diseases. <i>IScience</i> , 2020, 23, 101159.	4.1	19
26	Improved Measures for the Shape of a Disordered Polymer To Test a Mean-Field Theory of Collapse. <i>Macromolecules</i> , 2011, 44, 6182-6197.	4.8	16
27	Therapeutic targeting of the PI4K2A/PKR lysosome network is critical for misfolded protein clearance and survival in cancer cells. <i>Oncogene</i> , 2020, 39, 801-813.	5.9	16
28	TNF receptor-associated factor 6 interacts with ALS-linked misfolded superoxide dismutase 1 and promotes aggregation. <i>Journal of Biological Chemistry</i> , 2020, 295, 3808-3825.	3.4	16
29	Toward a Mechanism of Prion Misfolding and Structural Models of PrP ^{Sc} : Current Knowledge and Future Directions. <i>Journal of Toxicology and Environmental Health - Part A: Current Issues</i> , 2011, 74, 154-160.	2.3	15
30	Protein Transfer Free Energy Obeys Entropy-Enthalpy Compensation. <i>Journal of Physical Chemistry B</i> , 2015, 119, 14130-14144.	2.6	14
31	The unfolding mechanism of monomeric mutant SOD1 by simulated force spectroscopy. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2017, 1865, 1631-1642.	2.3	14
32	Generalization of distance to higher dimensional objects. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 14899-14904.	7.1	10
33	Polymer Uncrossing and Knotting in Protein Folding, and Their Role in Minimal Folding Pathways. <i>PLoS ONE</i> , 2013, 8, e53642.	2.5	7
34	Optimizing Epitope Conformational Ensembles Using $\hat{\pm}$ -Synuclein Cyclic Peptide α -Glycindel α -Scaffolds: A Customized Immunogen Method for Generating Oligomer-Selective Antibodies for Parkinson's Disease. <i>ACS Chemical Neuroscience</i> , 2022, 13, 2261-2280.	3.5	7
35	Soft Vibrational Modes Predict Breaking Events during Force-Induced Protein Unfolding. <i>Biophysical Journal</i> , 2018, 114, 562-569.	0.5	6
36	Structural alignment using the generalized Euclidean distance between conformations. <i>International Journal of Quantum Chemistry</i> , 2009, 109, 3217-3228.	2.0	5

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37	A method for systematically ranking therapeutic drug candidates using multiple uncertain screening criteria. <i>Statistical Methods in Medical Research</i> , 2021, 30, 1502-1522.	1.5	5
38	First Principles Calculation of Protein-Protein Dimer Affinities of ALS-Associated SOD1 Mutants. <i>Frontiers in Molecular Biosciences</i> , 2022, 9, 845013.	3.5	5
39	Minimal Folding Pathways for Coarse-Grained Biopolymer Fragments. <i>Biophysical Journal</i> , 2008, 95, 5496-5507.	0.5	4
40	Minimal distance transformations between links and polymers: principles and examples. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 244133.	1.8	4
41	pH dependent membrane binding of the <i>Solanum tuberosum</i> plant specific insert: An in silico study. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2018, 1860, 2608-2618.	2.6	4
42	Misfolding-Associated Exposure of Natively Buried Residues in Mutant SOD1 Facilitates Binding to TRAF6. <i>Journal of Molecular Biology</i> , 2022, 434, 167697.	4.2	2
43	P4299: A Computational Method to Predict Disease-Specific Epitopes in A β , and its Application to Oligomer-Selective Antibodies for Alzheimer's Immunotherapy. <i>Alzheimer's and Dementia</i> , 2016, 12, P1148.	0.8	1
44	Epitope prediction for oligomer-selective antibodies in tau and A β . <i>Alzheimer's and Dementia</i> , 2020, 16, e045757.	0.8	0