

# Stephen Hagen

## List of Publications by Year in descending order

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83  
papers

5,633  
citations

87888

38  
h-index

76900

74  
g-index

92  
all docs

92  
docs citations

92  
times ranked

3878  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fast Kinetics and Mechanisms in Protein Folding. Annual Review of Biophysics and Biomolecular Structure, 2000, 29, 327-359.	18.3	459
2	Diffusion-limited contact formation in unfolded cytochrome c: estimating the maximum rate of protein folding.. Proceedings of the National Academy of Sciences of the United States of America, 1996, 93, 11615-11617.	7.1	402
3	Smaller and Faster: The 20-Residue Trp-Cage Protein Folds in 4 $\frac{1}{4}$ s. Journal of the American Chemical Society, 2002, 124, 12952-12953.	13.7	323
4	Protein reaction kinetics in a room-temperature glass. Science, 1995, 269, 959-962.	12.6	231
5	Out-of-plane conductivity in single-crystal YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physical Review B, 1988, 37, 7928-7931.	3.2	208
6	Protein folding: Defining a "standard" set of experimental conditions and a preliminary kinetic data set of two-state proteins. Protein Science, 2005, 14, 602-616.	7.6	207
7	Anomalous Hall effect in superconductors near their critical temperatures. Physical Review B, 1990, 41, 11630-11633.	3.2	198
8	Anomalous flux-flow Hall effect: Nd <sub>1.85</sub> Ce <sub>0.15</sub> CuO <sub>4</sub> and evidence for vortex dynamics. Physical Review B, 1993, 47, 1064-1068.	3.2	195
9	Anisotropy of the thermal conductivity of YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physical Review B, 1989, 40, 9389-9392.	3.2	192
10	Trp zipper folding kinetics by molecular dynamics and temperature-jump spectroscopy. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 4077-4082.	7.1	185
11	Do Protein Molecules Unfold in a Simple Shear Flow?. Biophysical Journal, 2006, 91, 3415-3424.	0.5	169
12	Flux-flow Hall effect in superconducting Tl <sub>2</sub> Ba <sub>2</sub> CaCu <sub>2</sub> O <sub>8</sub> films. Physical Review B, 1991, 43, 6246-6248.	3.2	131
13	Solvent Viscosity and Friction in Protein Folding Dynamics. Current Protein and Peptide Science, 2010, 11, 385-395.	1.4	125
14	Rate of Intrachain Diffusion of Unfolded Cytochrome c. Journal of Physical Chemistry B, 1997, 101, 2352-2365.	2.6	119
15	Microfluidic study of competence regulation in <i>Streptococcus mutans</i> : environmental inputs modulate bimodal and unimodal expression of <i>comX</i> . Molecular Microbiology, 2012, 86, 258-272.	2.5	113
16	Geminate Rebinding and Conformational Dynamics of Myoglobin Embedded in a Glass at Room Temperature. The Journal of Physical Chemistry, 1996, 100, 12008-12021.	2.9	93
17	Anomalous in-plane paraconductivity in single-crystal YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . Physical Review B, 1988, 38, 7137-7140.	3.2	89
18	Internal Friction Controls the Speed of Protein Folding from a Compact Configuration. Biochemistry, 2004, 43, 12532-12538.	2.5	89

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19	Flux-flow Nernst effect in epitaxial YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> . <i>Physical Review B</i> , 1990, 42, 6777-6780.	3.2	87
20	Two-state expansion and collapse of a polypeptide 1 Edited by A. R. Fersht. <i>Journal of Molecular Biology</i> , 2000, 301, 1019-1027.	4.2	87
21	Nonexponential structural relaxations in proteins. <i>Journal of Chemical Physics</i> , 1996, 104, 3395-3398.	3.0	76
22	A Limiting Speed for Protein Folding at Low Solvent Viscosity. <i>Journal of the American Chemical Society</i> , 2004, 126, 3398-3399.	13.7	76
23	Heterogeneous Response to a Quorum-Sensing Signal in the Luminescence of Individual <i>Vibrio fischeri</i> . <i>PLoS ONE</i> , 2010, 5, e15473.	2.5	76
24	Laminar-Flow Fluid Mixer for Fast Fluorescence Kinetics Studies. <i>Biophysical Journal</i> , 2002, 83, 2872-2878.	0.5	70
25	Two-state expansion and collapse of a polypeptide. <i>Journal of Molecular Biology</i> , 2000, 297, 781-789.	4.2	69
26	Multi-Scaled Explorations of Binding-Induced Folding of Intrinsically Disordered Protein Inhibitor IA3 to its Target Enzyme. <i>PLoS Computational Biology</i> , 2011, 7, e1001118.	3.2	68
27	Quorum Activation at a Distance: Spatiotemporal Patterns of Gene Regulation from Diffusion of an Autoinducer Signal. <i>Journal of the American Chemical Society</i> , 2012, 134, 5618-5626.	13.7	68
28	Transport and localization in Nd <sub>2-x</sub> Ce <sub>x</sub> CuO <sub>4</sub> crystals at low doping. <i>Physical Review B</i> , 1992, 45, 515-518.	3.2	64
29	Thermoelectric power of Nd <sub>2-x</sub> Ce <sub>x</sub> CuO <sub>4</sub> crystals. <i>Physical Review B</i> , 1992, 45, 7356-7359.	3.2	60
30	Kinetics of Folding and Binding of an Intrinsically Disordered Protein: The Inhibitor of Yeast Aspartic Proteinase YPrA. <i>Journal of the American Chemical Society</i> , 2008, 130, 11477-11485.	13.7	55
31	In-plane transport properties of single-crystal R <sub>2-x</sub> Ce <sub>x</sub> CuO <sub>4-y</sub> (R=Nd,Sm). <i>Physical Review B</i> , 1991, 43, 13606-13609.	3.2	54
32	Approaching the Mott-Hubbard insulator in the 85-K superconductor Bi <sub>2</sub> (Sr,Ca) <sub>3</sub> Cu <sub>2</sub> O <sub>8</sub> +δ by doping with Tm. <i>Physical Review B</i> , 1989, 39, 7320-7323.	3.2	51
33	Effects of dimensional crossover on flux pinning in a model high-T <sub>c</sub> superconductor: YBa <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> /[(Pr <sub>x</sub> Y <sub>1-x</sub> )Ba <sub>2</sub> Cu <sub>3</sub> O <sub>7-δ</sub> ] superlattices. <i>Physical Review Letters</i> , 1992, 69, 2713-2716.	7.8	51
34	Hall-effect studies of Y <sub>1-x</sub> Pr <sub>x</sub> Ba <sub>2</sub> Cu <sub>3</sub> O <sub>7</sub> crystals. <i>Physical Review B</i> , 1992, 46, 8694-8697.	3.2	51
35	Exponential decay kinetics in downhill protein folding. <i>Proteins: Structure, Function and Bioinformatics</i> , 2002, 50, 1-4.	2.6	46
36	Sharply Tuned pH Response of Genetic Competence Regulation in <i>Streptococcus mutans</i> : a Microfluidic Study of the Environmental Sensitivity of <i>comX</i> . <i>Applied and Environmental Microbiology</i> , 2015, 81, 5622-5631.	3.1	46

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37	Rate of intrachain contact formation in an unfolded protein: temperature and denaturant effects. <i>Journal of Molecular Biology</i> , 2001, 305, 1161-1171.	4.2	40
38	Folding Dynamics and Pathways of the Trp-Cage Miniproteins. <i>Biochemistry</i> , 2014, 53, 6011-6021.	2.5	40
39	Effect of stress along the ab plane on the $\text{CaF}_2$ thin films. <i>Physical Review B</i> , 1991, 44, 10117-10120.	3.2	39
40	Fast Chain Contraction during Protein Folding: $\alpha$ -Foldability and Collapse Dynamics. <i>Physical Review Letters</i> , 2003, 90, 168103.	7.8	39
41	IA3, an Aspartic Proteinase Inhibitor from <i>Saccharomyces cerevisiae</i> , Is Intrinsically Unstructured in Solution. <i>Biochemistry</i> , 2004, 43, 4071-4081.	2.5	38
42	Diffusional limits to the speed of protein folding: fact or friction?. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S1503-S1514.	1.8	38
43	Noise and crosstalk in two quorum-sensing inputs of <i>Vibrio fischeri</i> . <i>BMC Systems Biology</i> , 2011, 5, 153.	3.0	38
44	Effects of Carbohydrate Source on Genetic Competence in <i>Streptococcus mutans</i> . <i>Applied and Environmental Microbiology</i> , 2016, 82, 4821-4834.	3.1	38
45	Rapid Intrachain Binding of Histidine-26 and Histidine-33 to Heme in Unfolded Ferrocycytochrome c. <i>Biochemistry</i> , 2002, 41, 1372-1380.	2.5	36
46	Bidirectional signaling in the competence regulatory pathway of <i>Streptococcus mutans</i> . <i>FEMS Microbiology Letters</i> , 2015, 362, fnv159.	1.8	35
47	Intracellular Signaling by the <i>comRS</i> System in <i>Streptococcus mutans</i> Genetic Competence. <i>MSphere</i> , 2018, 3, .	2.9	32
48	Traveling waves in response to a diffusing quorum sensing signal in spatially-extended bacterial colonies. <i>Journal of Theoretical Biology</i> , 2014, 363, 53-61.	1.7	31
49	Characterization of LrgAB as a stationary phase-specific pyruvate uptake system in <i>Streptococcus mutans</i> . <i>BMC Microbiology</i> , 2019, 19, 223.	3.3	30
50	Probe-dependent and nonexponential relaxation kinetics: Unreliable signatures of downhill protein folding. <i>Proteins: Structure, Function and Bioinformatics</i> , 2007, 68, 205-217.	2.6	29
51	Co-Assembly Tags Based on Charge Complementarity (CATCH) for Installing Functional Protein Ligands into Supramolecular Biomaterials. <i>Cellular and Molecular Bioengineering</i> , 2016, 9, 335-350.	2.1	26
52	Origins of heterogeneity in <i>Streptococcus mutans</i> competence: interpreting an environment-sensitive signaling pathway. <i>Physical Biology</i> , 2017, 14, 015001.	1.8	25
53	Exponential growth of bacteria: Constant multiplication through division. <i>American Journal of Physics</i> , 2010, 78, 1290-1296.	0.7	24
54	Modeling Analysis of Signal Sensitivity and Specificity by <i>Vibrio fischeri</i> LuxR Variants. <i>PLoS ONE</i> , 2015, 10, e0126474.	2.5	24

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55	Oxidative Stressors Modify the Response of <i>Streptococcus mutans</i> to Its Competence Signal Peptides. <i>Applied and Environmental Microbiology</i> , 2017, 83, .	3.1	23
56	Kinetics of Internal-Loop Formation in Polypeptide Chains: A Simulation Study. <i>Biophysical Journal</i> , 2007, 92, 2281-2289.	0.5	22
57	Intercellular Communication via the <i>comX</i> -Inducing Peptide (XIP) of <i>Streptococcus mutans</i> . <i>Journal of Bacteriology</i> , 2017, 199, .	2.2	22
58	Entropy-driven motility of <i>Sinorhizobium meliloti</i> on a semi-solid surface. <i>Proceedings of the Royal Society B: Biological Sciences</i> , 2014, 281, 20132575.	2.6	21
59	Bacterium in a box: sensing of quorum and environment by the LuxI/LuxR gene regulatory circuit. <i>Journal of Biological Physics</i> , 2010, 36, 317-327.	1.5	20
60	Enhanced purification coupled with biophysical analyses shows cross- $\beta$ structure as a core building block for <i>Streptococcus mutans</i> functional amyloids. <i>Scientific Reports</i> , 2020, 10, 5138.	3.3	20
61	Solvent Friction Changes the Folding Pathway of the Tryptophan Zipper TZ2. <i>Journal of Molecular Biology</i> , 2009, 390, 538-546.	4.2	19
62	Analysis of gene expression levels in individual bacterial cells without image segmentation. <i>Biochemical and Biophysical Research Communications</i> , 2012, 421, 425-430.	2.1	19
63	Internal friction in the ultrafast folding of the tryptophan cage. <i>Chemical Physics</i> , 2004, 307, 243-249.	1.9	18
64	Genome-Wide Screens Reveal New Gene Products That Influence Genetic Competence in <i>Streptococcus mutans</i> . <i>Journal of Bacteriology</i> , 2018, 200, .	2.2	18
65	Carbohydrate and PepO control bimodality in competence development by <i>Streptococcus mutans</i> . <i>Molecular Microbiology</i> , 2019, 112, 1388-1402.	2.5	17
66	Characterizing the Residue Level Folding of the Intrinsically Unstructured IA3. <i>Biochemistry</i> , 2006, 45, 13585-13596.	2.5	14
67	Anisotropic normal-state magnetothermopower of superconducting Nd <sub>1.85</sub> Ce <sub>0.15</sub> CuO <sub>4</sub> crystals. <i>Physical Review B</i> , 1993, 48, 657-660.	3.2	11
68	Environmental Triggers of IrgA Expression in <i>Streptococcus mutans</i> . <i>Frontiers in Microbiology</i> , 2020, 11, 18.	3.5	11
69	Asymmetric current-voltage characteristics in type-II superconductors. <i>Physical Review B</i> , 1994, 49, 9244-9247.	3.2	10
70	Comments on the physics and chemistry of trehalose as a storage medium for hemoglobin-based blood substitutes: "From kramers theory to the battlefield". <i>Transfusion Clinique Et Biologique</i> , 1995, 2, 423-426.	0.4	10
71	Threshold regulation and stochasticity from the Meca/ClpCP proteolytic system in <i>Streptococcus mutans</i> competence. <i>Molecular Microbiology</i> , 2018, 110, 914-930.	2.5	7
72	The quantitative measure and statistical distribution of fame. <i>PLoS ONE</i> , 2018, 13, e0200196.	2.5	5

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73	Spatially propagating activation of quorum sensing in <i>Vibrio fischeri</i> and the transition to low population density. <i>Physical Review E</i> , 2020, 101, 062421.	2.1	5
74	Solvent Viscosity and Friction in Protein Folding Dynamics. <i>Current Protein and Peptide Science</i> , 2010, 999, 1-11.	1.4	4
75	Anomalous normal state magnetothermopower of electron-doped Nd <sub>1.85</sub> Ce <sub>0.15</sub> CuO <sub>4</sub> ±? crystals. <i>Journal of Superconductivity and Novel Magnetism</i> , 1994, 7, 773-775.	0.5	2
76	IA3, A Yeast Proteinase A Inhibitor, Is Intrinsically Unstructured in Solution. <i>Scientific World Journal</i> , The, 2002, 2, 99-101.	2.1	2
77	Laser Temperature-Jump Spectroscopy of Intrinsically Disordered Proteins. <i>Methods in Molecular Biology</i> , 2012, 896, 267-281.	0.9	2
78	Spatial Correlations and Distribution of Competence Gene Expression in Biofilms of <i>Streptococcus mutans</i> . <i>Frontiers in Microbiology</i> , 2020, 11, 627992.	3.5	2
79	Swimming in Information? Physical Limits to Learning by Quorum Sensing. <i>Biological and Medical Physics Series</i> , 2015, , 123-144.	0.4	1
80	Dimension-reduction simplifies the analysis of signal crosstalk in a bacterial quorum sensing pathway. <i>Scientific Reports</i> , 2021, 11, 19719.	3.3	1
81	Symposia lectures. <i>Journal of Biosciences</i> , 1999, 24, 5-31.	1.1	0
82	Wavelike propagation of quorum activation through a spatially distributed bacterial population under natural regulation. <i>Physical Biology</i> , 2021, 18, 046008.	1.8	0
83	Andreev Reflection, Thermal Conductivity, Torque Magnetometry, and Hall Effect Studies on High-T <sub>c</sub> Systems. <i>Springer Series in Solid-state Sciences</i> , 1989, , 204-212.	0.3	0