Stephen Hagen

List of Publications by Year
in descending order

83 papers	5,633 citations	38 h-index	74 g-index
92 all docs	92 docs citations	92 times ranked	3878 citing authors

87888
76900

#	Article	IF	Citations
1	Wavelike propagation of quorum activation through a spatially distributed bacterial population under natural regulation. Physical Biology, 2021, 18, 046008.	1.8	0
2	Dimension-reduction simplifies the analysis of signal crosstalk in a bacterial quorum sensing pathway. Scientific Reports, 2021, 11, 19719.	3.3	1
3	Enhanced purification coupled with biophysical analyses shows cross-Î² structure as a core building block for Streptococcus mutans functional amyloids. Scientific Reports, 2020, 10, 5138.	3.3	20
4	Spatially propagating activation of quorum sensing in Vibrio fischeri and the transition to low population density. Physical Review E, 2020, 101, 062421.	2.1	5
5	Environmental Triggers of lrgA Expression in Streptococcus mutans. Frontiers in Microbiology, 2020, 11, 18.	3.5	11
6	Spatial Correlations and Distribution of Competence Gene Expression in Biofilms of Streptococcus mutans. Frontiers in Microbiology, 2020, 11, 627992.	3.5	2
7	Carbohydrate and PepO control bimodality in competence development by <i>Streptococcus mutans</i>. Molecular Microbiology, 2019, 112, 1388-1402.	2.5	17
8	Characterization of LrgAB as a stationary phase-specific pyruvate uptake system in Streptococcus mutans. BMC Microbiology, 2019, 19, 223.	3.3	30
9	Genome-Wide Screens Reveal New Gene Products That Influence Genetic Competence in Streptococcus mutans. Journal of Bacteriology, 2018, 200, .	2.2	18
10	Intracellular Signaling by the <i>comRS</i> System in <i>Streptococcus mutans</i> Genetic Competence. MSphere, 2018, 3, .	2.9	32
11	The quantitative measure and statistical distribution of fame. PLoS ONE, 2018, 13, e0200196.	2.5	5
12	Threshold regulation and stochasticity from the MecA/ClpCP proteolytic system in <i>Streptococcus mutans</i> competence. Molecular Microbiology, 2018, 110, 914-930.	2.5	7
13	Origins of heterogeneity in <i>Streptococcus mutans</i> competence: interpreting an environment-sensitive signaling pathway. Physical Biology, 2017, 14, 015001.	1.8	25
14	Intercellular Communication via the <i>comX</i> -Inducing Peptide (XIP) of Streptococcus mutans. Journal of Bacteriology, 2017, 199, .	2.2	22
15	Oxidative Stressors Modify the Response of Streptococcus mutans to Its Competence Signal Peptides. Applied and Environmental Microbiology, 2017, 83, .	3.1	23
16	Co-Assembly Tags Based on Charge Complementarity (CATCH) for Installing Functional Protein Ligands into Supramolecular Biomaterials. Cellular and Molecular Bioengineering, 2016, 9, 335-350.	2.1	26
17	Effects of Carbohydrate Source on Genetic Competence in Streptococcus mutans. Applied and Environmental Microbiology, 2016, 82, 4821-4834.	3.1	38
18	Modeling Analysis of Signal Sensitivity and Specificity by Vibrio fischeri LuxR Variants. PLoS ONE, 2015, 10, e0126474.	2.5	24

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19	Bidirectional signaling in the competence regulatory pathway ofStreptococcus mutans. FEMS Microbiology Letters, 2015, 362, fnv159.	1.8	35
20	Sharply Tuned pH Response of Genetic Competence Regulation in Streptococcus mutans: a Microfluidic Study of the Environmental Sensitivity of <i>comX</i>. Applied and Environmental Microbiology, 2015, 81, 5622-5631.	3.1	46
21	Swimming in Information? Physical Limits to Learning by Quorum Sensing. Biological and Medical Physics Series, 2015, , 123-144.	0.4	1
22	Entropy-driven motility of <i>Sinorhizobium meliloti</i> on a semi-solid surface. Proceedings of the Royal Society B: Biological Sciences, 2014, 281, 20132575.	2.6	21
23	Folding Dynamics and Pathways of the Trp-Cage Miniproteins. Biochemistry, 2014, 53, 6011-6021.	2.5	40
24	Traveling waves in response to a diffusing quorum sensing signal in spatially-extended bacterial colonies. Journal of Theoretical Biology, 2014, 363, 53-61.	1.7	31
25	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
26	Quorum Activation at a Distance: Spatiotemporal Patterns of Gene Regulation from Diffusion of an Autoinducer Signal. Journal of the American Chemical Society, 2012, 134, 5618-5626.	13.7	68
27	Analysis of gene expression levels in individual bacterial cells without image segmentation. Biochemical and Biophysical Research Communications, 2012, 421, 425-430.	2.1	19
28	Laser Temperature-Jump Spectroscopy of Intrinsically Disordered Proteins. Methods in Molecular Biology, 2012, 896, 267-281.	0.9	2
29	Noise and crosstalk in two quorum-sensing inputs of Vibrio fischeri. BMC Systems Biology, 2011, 5, 153.	3.0	38
30	Multi-Scaled Explorations of Binding-Induced Folding of Intrinsically Disordered Protein Inhibitor IA3 to its Target Enzyme. PLoS Computational Biology, 2011, 7, e1001118.	3.2	68
31	Bacterium in a box: sensing of quorum and environment by the LuxI/LuxR gene regulatory circuit. Journal of Biological Physics, 2010, 36, 317-327.	1.5	20
32	Heterogeneous Response to a Quorum-Sensing Signal in the Luminescence of Individual Vibrio fischeri. PLoS ONE, 2010, 5, e15473.	2.5	76
33	Solvent Viscosity and Friction in Protein Folding Dynamics. Current Protein and Peptide Science, 2010, 11, 385-395.	1.4	125
34	Exponential growth of bacteria: Constant multiplication through division. American Journal of Physics, 2010, 78, 1290-1296.	0.7	24
35	Solvent Viscosity and Friction in Protein Folding Dynamics. Current Protein and Peptide Science, 2010, 999, 1-11.	1.4	4
36	Solvent Friction Changes the Folding Pathway of the Tryptophan Zipper TZ2. Journal of Molecular Biology, 2009, 390, 538-546.	4.2	19

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37	Kinetics of Folding and Binding of an Intrinsically Disordered Protein: The Inhibitor of Yeast Aspartic Proteinase YPrA. Journal of the American Chemical Society, 2008, 130, 11477-11485.	13.7	55
38	Kinetics of Internal-Loop Formation in Polypeptide Chains: A Simulation Study. Biophysical Journal, 2007, 92, 2281-2289.	0.5	22
39	Probe-dependent and nonexponential relaxation kinetics: Unreliable signatures of downhill protein folding. Proteins: Structure, Function and Bioinformatics, 2007, 68, 205-217.	2.6	29
40	Do Protein Molecules Unfold in a Simple Shear Flow?. Biophysical Journal, 2006, 91, 3415-3424.	0.5	169
41	Characterizing the Residue Level Folding of the Intrinsically Unstructured IA3. Biochemistry, 2006, 45, 13585-13596.	2.5	14
42	Diffusional limits to the speed of protein folding: fact or friction?. Journal of Physics Condensed Matter, 2005, 17, S1503-S1514.	1.8	38
43	Protein folding: Defining a â€œstandardâ€•set of experimental conditions and a preliminary kinetic data set of two-state proteins. Protein Science, 2005, 14, 602-616.	7.6	207
44	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
45	Internal friction in the ultrafast folding of the tryptophan cage. Chemical Physics, 2004, 307, 243-249.	1.9	18
46	IA3, an Aspartic Proteinase Inhibitor from Saccharomyces cerevisiae, Is Intrinsically Unstructured in Solution. Biochemistry, 2004, 43, 4071-4081.	2.5	38
47	Internal Friction Controls the Speed of Protein Folding from a Compact Configurationâ€. Biochemistry, 2004, 43, 12532-12538.	2.5	89
48	A Limiting Speed for Protein Folding at Low Solvent Viscosity. Journal of the American Chemical Society, 2004, 126, 3398-3399.	13.7	76
49	Fast Chain Contraction during Protein Folding: â€œFoldabilityâ€•and Collapse Dynamics. Physical Review Letters, 2003, 90, 168103.	7.8	39
50	Smaller and Faster:Â The 20-Residue Trp-Cage Protein Folds in 4 Î¼s. Journal of the American Chemical Society, 2002, 124, 12952-12953.	13.7	323
51	Rapid Intrachain Binding of Histidine-26 and Histidine-33 to Heme in Unfolded Ferrocytochrome c. Biochemistry, 2002, 41, 1372-1380.	2.5	36
52	Laminar-Flow Fluid Mixer for Fast Fluorescence Kinetics Studies. Biophysical Journal, 2002, 83, 2872-2878.	0.5	70
53	IA3, A Yeast Proteinase A Inhibitor, Is Intrinsically Unstructured in Solution. Scientific World Journal, The, 2002, 2, 99-101.	2.1	2
54	Exponential decay kinetics in â€œdownhillâ€•protein folding. Proteins: Structure, Function and Bioinformatics, 2002, 50, 1-4.	2.6	46

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55	Rate of intrachain contact formation in an unfolded protein: temperature and denaturant effects. Journal of Molecular Biology, 2001, 305, 1161-1171.	4.2	40
56	Two-state expansion and collapse of a polypeptide. Journal of Molecular Biology, 2000, 297, 781-789.	4.2	69
57	Two-state expansion and collapse of a polypeptide 1 1Edited by A. R. Fersht. Journal of Molecular Biology, 2000, 301, 1019-1027.	4.2	87
58	Fast Kinetics and Mechanisms in Protein Folding. Annual Review of Biophysics and Biomolecular Structure, 2000, 29, 327-359.	18.3	459
59	Symposia lectures. Journal of Biosciences, 1999, 24, 5-31.	1.1	0
60	Rate of Intrachain Diffusion of Unfolded Cytochromec. Journal of Physical Chemistry B, 1997, 101, 2352-2365.	2.6	119
61	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
62	Nonexponential structural relaxations in proteins. Journal of Chemical Physics, 1996, 104, 3395-3398.	3.0	76
63	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
64	Protein reaction kinetics in a room-temperature glass. Science, 1995, 269, 959-962.	12.6	231
65	Comments on the physics and chemistry of trehalose as a storage medium for hemoglobin-based blood substitutes: â€œFrom kramers theory to the battlefieldâ€• Transfusion Clinique Et Biologique, 1995, 2, 423-426.	0.4	10
66	Asymmetric current-voltage characteristics in type-II superconductors. Physical Review B, 1994, 49, 9244-9247.	3.2	10
67	Anomalous normal state magnetothermopower of electron-doped Nd1.85Ce0.15CuO4+? crystals. Journal of Superconductivity and Novel Magnetism, 1994, 7, 773-775.	0.5	2
68	Anomalous flux-flow Hall effect:Nd1.85Ce0.15CuO4â^'yand evidence for vortex dynamics. Physical Review B, 1993, 47, 1064-1068.	3.2	195
69	Anisotropic normal-state magnetothermopower of superconductingNd1.85Ce0.15CuO4crystals. Physical Review B, 1993, 48, 657-660.	3.2	11
70	Thermoelectric power ofNd2â^'xCexCuO4crystals. Physical Review B, 1992, 45, 7356-7359.	3.2	60
71	Transport and localization inNd2â^'xCexCuO4â^'ycrystals at low doping. Physical Review B, 1992, 45, 515-518.	3.2	64
72	Effects of dimensional crossover on flux pinning in a model high-Tcsuperconductor:YBa2Cu3O7â^'Î´/(PrxY1â^'x)Ba2Cu3O7â^'Î´superlattices. Physical Review Letters, 1992, 69, 2713-2716.	7.8	51

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73	Hall-effect studies ofY1â^ˆ'xPrxBa2Cu3O7crystals. Physical Review B, 1992, 46, 8694-8697.	3.2	51
74	In-plane transport properties of single-crystalR2âˆ'xCexCuO4âˆ'y(R=Nd,Sm). Physical Review B, 1991, 43, 13606-13609.	3.2	54
75	Flux-flow Hall effect in superconductingTl2Ba2CaCu2O8films. Physical Review B, 1991, 43, 6246-6248.	3.2	131
76	Effect of stress along theabplane on theJcandTcofYBa2Cu3O7thin films. Physical Review B, 1991, 44, 10117-10120.	3.2	39
77	Anomalous Hall effect in superconductors near their critical temperatures. Physical Review B, 1990, 41, 11630-11633.	3.2	198
78	Flux-flow Nernst effect in epitaxialYBa2Cu3O7. Physical Review B, 1990, 42, 6777-6780.	3.2	87
79	Approaching the Mott-Hubbard insulator in the 85-K superconductorBi2(Sr,Ca)3Cu2O8+dby doping with Tm. Physical Review B, 1989, 39, 7320-7323.	3.2	51
80	Anisotropy of the thermal conductivity ofYBa2Cu3O7âˆ'y. Physical Review B, 1989, 40, 9389-9392.	3.2	192
81	Andreev Reflection, Thermal Conductivity, Torque Magnetometry, and Hall Effect Studies on High-Tc Systems. Springer Series in Solid-state Sciences, 1989, , 204-212.	0.3	0
82	Out-of-plane conductivity in single-crystalYBa2Cu3O7. Physical Review B, 1988, 37, 7928-7931.	3.2	208
83	Anomalous in-plane paraconductivity in single-crystal YBa2Cu3O7. Physical Review B, 1988, 38, 7137-7140.	3.2	89