Steffen P Graether

List of Publications by Year
in descending order

64 papers	2,116 citations	257101 24 h-index	243296 44 g-index
66 all docs	66 docs citations	66 times ranked	2094 citing authors

#	Article	IF	Citations
1	Î²-Helix structure and ice-binding properties of a hyperactive antifreeze protein from an insect. Nature, 2000, 406, 325-328.	13.7	410
2	Disorder and function: a review of the dehydrin protein family. Frontiers in Plant Science, 2014, 5, 576.	1.7	246
3	Cold survival in freeze-intolerant insects. FEBS Journal, 2004, 271, 3285-3296.	0.2	117
4	The Importance of Size and Disorder in the Cryoprotective Effects of Dehydrins Â Â. Plant Physiology, 2013, 163, 1376-1386.	2.3	97
5	Cryoprotective mechanism of a small intrinsically disordered dehydrin protein. Protein Science, 2011, 20, 42-50.	3.1	94
6	Modeling Pseudomonas syringae Ice-Nucleation Protein as aÎ²-Helical Protein. Biophysical Journal, 2001, 80, 1169-1173.	0.2	87
7	Quantitative and Qualitative Analysis of Type III Antifreeze Protein Structure and Function. Journal of Biological Chemistry, 1999, 274, 11842-11847.	1.6	72
8	Structure-function relationships in spruce budworm antifreeze protein revealed by isoform diversity. FEBS Journal, 2000, 267, 6082-6088.	0.2	58
9	Obtaining highly purified intrinsically disordered protein by boiling lysis and single step ion exchange. Analytical Biochemistry, 2009, 392, 70-76.	1.1	56
10	A dehydrin-dehydrin interaction: the case of SK3 from Opuntia streptacantha. Frontiers in Plant Science, 2014, 5, 520.	1.7	51
11	Genome Analysis of Conserved Dehydrin Motifs in Vascular Plants. Frontiers in Plant Science, 2017, 8, 709.	1.7	48
12	Structural and Functional Insights into the Cryoprotection of Membranes by the Intrinsically Disordered Dehydrins. Journal of Biological Chemistry, 2015, 290, 26900-26913.	1.6	45
13	In vivo evidence for homo- and heterodimeric interactions of Arabidopsis thaliana dehydrins AtCOR47, AtERD10, and AtRAB18. Scientific Reports, 2017, 7, 17036.	1.6	39
14	Properties and biotechnological applications of ice-binding proteins in bacteria. FEMS Microbiology Letters, 2016, 363, fnw099.	0.7	38
15	Structure of Type I Antifreeze Protein and Mutants in Supercooled Water. Biophysical Journal, 2001, 81, 1677-1683.	0.2	36
16	Freezing of a Fish Antifreeze Protein Results in Amyloid Fibril Formation. Biophysical Journal, 2003, 84, 552-557.	0.2	35
17	Spruce Budworm Antifreeze Protein: Changes in Structure and Dynamics at Low Temperature. Journal of Molecular Biology, 2003, 327, 1155-1168.	2.0	32
18	Differential stability of the bovine prion protein upon urea unfolding. Protein Science, 2009, 18, 2172-2182.	3.1	30

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19	Tryptophan Residues in Caldesmon Are Major Determinants for Calmodulin Binding. Biochemistry, 1997, 36, 364-369.	1.2	28
20	Evolution of the modular, disordered stress proteins known as dehydrins. PLoS ONE, 2019, 14, e0211813.	1.1	28
21	Structures and ice-binding faces of the alanine-rich type I antifreeze proteinsThis paper is one of a selection of papers published in this special issue entitled â€œCanadian Society of Biochemistry, Molecular & Cellular Biology 52nd Annual Meeting â€" Protein Folding: Principles and Diseasesâ€• and has undergone the Journal's usual peer review process.. Biochemistry and Cell Biology, 2010, 88, 223-229.	0.9	27
22	Bacterial community structures and ice recrystallization inhibition activity of bacteria isolated from the phyllosphere of the Antarctic vascular plant Deschampsia antarctica. Polar Biology, 2017, 40, 1319-1331.	0.5	27
23	Editorial: Bioprospecting and Biotechnology of Extremophiles. Frontiers in Bioengineering and Biotechnology, 2019, 7, 204.	2.0	27
24	Nuclear localization of the dehydrin OpsDHN1 is determined by histidine-rich motif. Frontiers in Plant Science, 2015, 6, 702.	1.7	26
25	Binding of a Vitis riparia dehydrin to DNA. Plant Science, 2019, 287, 110172.	1.7	25
26	The Disordered Dehydrin and Its Role in Plant Protection: A Biochemical Perspective. Biomolecules, 2022, 12, 294.	1.8	24
27	LEAfing through literature: late embryogenesis abundant proteins coming of ageâ€"achievements and perspectives. Journal of Experimental Botany, 2022, 73, 6525-6546.	2.4	24
28	NMR assignments of the intrinsically disordered K2 and YSK2 dehydrins. Biomolecular NMR Assignments, 2009, 3, 273-275.	0.4	23
29	Effect of an Intrinsically Disordered Plant Stress Protein on the Properties of Water. Biophysical Journal, 2018, 115, 1696-1706.	0.2	23
30	Structure of an Intrinsically Disordered Stress Protein Alone and Bound to a Membrane Surface. Biophysical Journal, 2016, 111, 480-491.	0.2	22
31	An Analysis of the Perceptions and Resources of Large University Classes. CBE Life Sciences Education, 2017, 16, ar33.	1.1	22
32	Draft genome sequences of bacteria isolated from the Deschampsia antarctica phyllosphere. Extremophiles, 2018, 22, 537-552.	0.9	19
33	Cold tolerance mechanisms of two arthropods from the Andean Range of Central Chile: Agathemera crassa (Insecta: Agathemeridae) and Euathlus condorito (Arachnida: Theraphosidae). Journal of Thermal Biology, 2018, 74, 133-139.	1.1	16
34	Hydrogen Bonding on the Ice-Binding Face of a Î²-Helical Antifreeze Protein Indicated by Amide Proton NMR Chemical Shiftsâ€. Biochemistry, 2004, 43, 13012-13017.	1.2	14
35	Troubleshooting Guide to Expressing Intrinsically Disordered Proteins for Use in NMR Experiments. Frontiers in Molecular Biosciences, 2019, 5, 118.	1.6	14
36	Conserved sequence motifs in the abiotic stress response protein late embryogenesis abundant 3. PLoS ONE, 2020, 15, e0237177.	1.1	12

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37	A 1H/19F minicoil NMR probe for solid-state NMR: Application to 5-fluoroindoles. Journal of Magnetic Resonance, 2006, 178, 65-71.	1.2	11
38	Conway crossover to create hyperdimensional point packings, with applications. , 2016, , .		11
39	Increased flexibility decreases antifreeze protein activity. Protein Science, 2010, 19, 2356-2365.	3.1	10
40	Sequence composition versus sequence order in the cryoprotective function of an intrinsically disordered stressâ€response protein. Protein Science, 2019, 28, 1448-1459.	3.1	10
41	CRISPR-induced null alleles show that <i>Frost</i> protects <i>Drosophila melanogaster</i> reproduction after cold exposure. Journal of Experimental Biology, 2017, 220, 3344-3354.	0.8	9
42	Effect of a mutation on the structure and dynamics of an Î±-helical antifreeze protein in water and ice. Proteins: Structure, Function and Bioinformatics, 2006, 63, 603-610.	1.5	7
43	Phosphorylationâ€dependent control of Activityâ€regulated cytoskeletonâ€associated protein (Arc) protein by TNIK. Journal of Neurochemistry, 2021, 158, 1058-1073.	2.1	7
44	Surviving winter with antifreeze proteins. , 2001, , 199-211.		6
45	Early detection of inflammation-associated amyloid in murine spleen using thioflavin T fluorescence of spleen homogenates: Implications for amyloidogenesis. Amyloid: the International Journal of Experimental and Clinical Investigation: the Official Journal of the International Society of Amyloidosis, 1996, 3, 20-27.	1.4	5
46	Crystallization and Preliminary X-Ray Crystallographic Analysis of Spruce Budworm Antifreeze Protein. Journal of Structural Biology, 1999, 126, 72-75.	1.3	5
47	Perception of Biology Instructors on Using Student Evaluations to Inform Their Teaching. International Journal of Higher Education, 2019, 8, 133.	0.2	5
48	Effect of in vitro cold acclimation of Deschampsia antarctica on the accumulation of proteins with antifreeze activity. Journal of Experimental Botany, 2020, 71, 2933-2942.	2.4	5
49	The in vitro structure and functions of the disordered late embryogenesis abundant three proteins. Protein Science, 2021, 30, 678-692.	3.1	5
50	The Halophyte Dehydrin Sequence Landscape. Biomolecules, 2022, 12, 330.	1.8	5
51	Physiological, Structural, and Functional Insights Into the Cryoprotection of Membranes by the Dehydrins. Frontiers in Plant Science, 2022, 13, 886525.	1.7	5
52	Structural Characterization of Amyloidotic Antifreeze Protein Fibrils and Intermediates. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2009, 72, 1030-1033.	1.1	4
53	Monitoring Prion Protein Stability by NMR. Journal of Toxicology and Environmental Health - Part A: Current Issues, 2009, 72, 1069-1074.	1.1	4
54	Expression and Purification of an Intrinsically Disordered Protein. Methods in Molecular Biology, 2020, 2141, 181-194.	0.4	4

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55	Data driven point packing for fast clustering. , 2018, , .		3
56	Testing the rogue taxa hypothesis for clustering instability. Journal of Theoretical Biology, 2019, 472, 36-45.	0.8	1
57	The Importance of Sequence Order Versus Composition in the Cryoprotective Function of an Intrinsically Disordered Protein. Biophysical Journal, 2019, 116, 201a.	0.2	0
58	The Sequence, Structure and Function of the Plant Stress Protein LEA3. Biophysical Journal, 2021, 120, 32a.	0.2	0
59	Methods for recombinant production and purification of intrinsically disordered proteins. , 2022, , 41-48.		0
60	Changing Bimodal Grade Distributions â€“ A Missed Opportunity?. International Journal of Higher Education, 2022, 11, 70.	0.2	0
61	Conserved sequence motifs in the abiotic stress response protein late embryogenesis abundant 3. , 2020, 15, e0237177.		0
62	Conserved sequence motifs in the abiotic stress response protein late embryogenesis abundant 3. , 2020, 15, e0237177.		0
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