Kevin H Gardner

List of Publications by Year
in descending order

117 papers	10,547 citations	31976 53 h-index	32842 100 g-index
129 all docs	129 docs citations	129 times ranked	9493 citing authors

#	Article	IF	Citations
1	Designing Single-Component Optogenetic Membrane Recruitment Systems: The Rho-Family GTPase Signaling Toolbox. ACS Synthetic Biology, 2022, 11, 515-521.	3.8	10
2	Lighting the way: Recent insights into the structure and regulation of phototropin blue light receptors. Journal of Biological Chemistry, 2021, 296, 100594.	3.4	20
3	TAEL 2.0: An Improved Optogenetic Expression System for Zebrafish. Zebrafish, 2021, 18, 20-28.	1.1	9
4	Volume and compressibility differences between protein conformations revealed by high-pressure NMR. Biophysical Journal, 2021, 120, 924-935.	0.5	10
5	Fragile protein folds: sequence and environmental factors affecting the equilibrium of two interconverting, stably folded protein conformations. Magnetic Resonance, 2021, 2, 63-76.	1.9	1
6	Two steps, one ligand: How PPARÎ³ binds small-molecule agonists. Structure, 2021, 29, 935-936.	3.3	1
7	Unraveling the Mechanism of a LOV Domain Optogenetic Sensor: A Glutamine Lever Induces Unfolding of the JÎ± Helix. ACS Chemical Biology, 2020, 15, 2752-2765.	3.4	29
8	Shining light on the alphaproteobacterial general stress response. Molecular Microbiology, 2019, 112, 438-441.	2.5	0
9	Insights into histidine kinase activation mechanisms from the monomeric blue light sensor EL346. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 4963-4972.	7.1	19
10	Isotopic Labeling of Eukaryotic Membrane Proteins for NMR Studies of Interactions and Dynamics. Methods in Enzymology, 2019, 614, 37-65.	1.0	8
11	Directly light-regulated binding of RGS-LOV photoreceptors to anionic membrane phospholipids. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E7720-E7727.	7.1	52
12	Blue-Light Receptors for Optogenetics. Chemical Reviews, 2018, 118, 10659-10709.	47.7	176
13	On the use of Pichia pastoris for isotopic labeling of human GPCRs for NMR studies. Journal of Biomolecular NMR, 2018, 71, 203-211.	2.8	31
14	Converting Nature's Switches Into Scientists' Tools: How Biophysical Insights Lay The Foundation For Artificial Control Of Protein Activity. FASEB Journal, 2018, 32, 533.98.	0.5	0
15	TAEL: A zebrafish-optimized optogenetic gene expression system with fine spatial and temporal control. Development (Cambridge), 2017, 144, 345-355.	2.5	67
16	Ligand modulation of sidechain dynamics in a wild-type human GPCR. ELife, 2017, 6, .	6.0	75
17	Functional and topological diversity of LOV domain photoreceptors. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, E1442-51.	7.1	125
18	Targeting renal cell carcinoma with a HIF-2 antagonist. Nature, 2016, 539, 112-117.	27.8	521

#	ARTICLE	IF	CITATIONS
19	Computational Repacking of HIF-2Î± Cavity Replaces Water-Based Stabilized Core. Structure, 2016, 24, 1918-1927.	3.3	6
20	Basis of Mutual Domain Inhibition in a Bacterial Response Regulator. Cell Chemical Biology, 2016, 23, 945-954.	5.2	12
21	On the acquisition and analysis of microscale thermophoresis data. Analytical Biochemistry, 2016, 496, 79-93.	2.4	130
22	Coiled-coil Coactivators Play a Structural Role Mediating Interactions in Hypoxia-inducible Factor Heterodimerization. Journal of Biological Chemistry, 2015, 290, 7707-7721.	3.4	26
23	Ligand-Induced Folding of a Two-Component Signaling Receiver Domain. Biochemistry, 2015, 54, 1353-1363.	2.5	15
24	Methyl labeling and TROSY NMR spectroscopy of proteins expressed in the eukaryote Pichia pastoris. Journal of Biomolecular NMR, 2015, 62, 239-245.	2.8	42
25	Isoform-Selective and Stereoselective Inhibition of Hypoxia Inducible Factor-2. Journal of Medicinal Chemistry, 2015, 58, 5930-5941.	6.4	59
26	Full-length structure of a monomeric histidine kinase reveals basis for sensory regulation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 17839-17844.	7.1	80
27	An optogenetic gene expression system with rapid activation and deactivation kinetics. Nature Chemical Biology, 2014, 10, 196-202.	8.0	317
28	Development of Inhibitors of the PAS-B Domain of the HIF-2Î± Transcription Factor. Journal of Medicinal Chemistry, 2013, 56, 1739-1747.	6.4	101
29	Solution Structure of the WNK1 Autoinhibitory Domain, a WNK-Specific PF2 Domain. Journal of Molecular Biology, 2013, 425, 1245-1252.	4.2	13
30	Effectors of animal and plant pathogens use a common domain to bind host phosphoinositides. Nature Communications, 2013, 4, 2973.	12.8	62
31	Regulating the ARNT/TACC3 Axis: Multiple Approaches to Manipulating Protein/Protein Interactions with Small Molecules. ACS Chemical Biology, 2013, 8, 626-635.	3.4	37
32	Signaling mechanisms of LOV domains: new insights from molecular dynamics studies. Photochemical and Photobiological Sciences, 2013, 12, 1158-1170.	2.9	97
33	Allosteric inhibition of hypoxia inducible factor-2 with small molecules. Nature Chemical Biology, 2013, 9, 271-276.	8.0	234
34	Blue Light Regulated Two-Component Systems: Enzymatic and Functional Analyses of Light-Oxygen-Voltage (LOV)-Histidine Kinases and Downstream Response Regulators. Biochemistry, 2013, 52, 4656-4666.	2.5	32
35	Blue Light-Induced Dimerization of a Bacterial LOVâ€“HTH DNA-Binding Protein. Biochemistry, 2013, 52, 6653-6661.	2.5	75
36	Enlightening molecular mechanisms through study of protein interactions. Journal of Molecular Cell Biology, 2012, 4, 270-283.	3.3	26

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37	Hemerythrin-like Domain within F-box and Leucine-rich Repeat Protein 5 (FBXL5) Communicates Cellular Iron and Oxygen Availability by Distinct Mechanisms. Journal of Biological Chemistry, 2012, 287, 23710-23717.	3.4	35
38	How Plants See the Invisible. Science, 2012, 335, 1451-1452.	12.6	6
39	Identification of Natural and Artificial DNA Substrates for Light-Activated LOVâ€"HTH Transcription Factor EL222. Biochemistry, 2012, 51, 10024-10034.	2.5	59
40	In support of the BMRB. Nature Structural and Molecular Biology, 2012, 19, 854-860.	8.2	6
41	Tripping the Light Fantastic: Blue-Light Photoreceptors as Examples of Environmentally Modulated Proteinâ^'Protein Interactions. Biochemistry, 2011, 50, 4-16.	2.5	144
42	Modulating LOV Domain Photodynamics with a Residue Alteration outside the Chromophore Binding Site. Biochemistry, 2011, 50, 2411-2423.	2.5	44
43	Variations in Proteinâ€"Flavin Hydrogen Bonding in a Light, Oxygen, Voltage Domain Produce Non-Arrhenius Kinetics of Adduct Decay. Biochemistry, 2011, 50, 8771-8779.	2.5	45
44	Mutational and Structural Studies of the PixD BLUF Output Signal That Affects Light-Regulated Interactions with PixE. Biochemistry, 2011, 50, 6365-6375.	2.5	37
45	A tribute to Lewis E Kay on his 50th birthday. Journal of Biomolecular NMR, 2011, 51, 3-4.	2.8	0
46	Coactivators necessary for transcriptional output of the hypoxia inducible factor, HIF, are directly recruited by ARNT PAS-B. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7739-7744.	7.1	58
47	Structural basis of photosensitivity in a bacterial light-oxygen-voltage/helix-turn-helix (LOV-HTH) DNA-binding protein. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9449-9454.	7.1	164
48	Modulation of HIF-2 Function with Small Molecules: Did Nature Beat Us to It?. Blood, 2011, 118, SCI-39-SCI-39.	1.4	0
49	The Third Conformation of p38Î± MAP Kinase Observed in Phosphorylated p38Î± and in Solution. Structure, 2010, 18, 1571-1578.	3.3	37
50	Coactivator recruitment: A new role for PAS domains in transcriptional regulation by the bHLHâ€PAS family. Journal of Cellular Physiology, 2010, 223, 553-557.	4.1	47
51	Rationally improving LOV domainâ€"based photoswitches. Nature Methods, 2010, 7, 623-626.	19.0	180
52	Molecular basis for peptidoglycan recognition by a bactericidal lectin. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 7722-7727.	7.1	121
53	The Three Rs of Transcription: Recruit, Retain, and Recycle. Molecular Cell, 2010, 40, 855-858.	9.7	4
54	Molecular Basis of Coiled Coil Coactivator Recruitment by the Aryl Hydrocarbon Receptor Nuclear Translocator (ARNT). Journal of Biological Chemistry, 2009, 284, 15184-15192.	3.4	32

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55	Artificial ligand binding within the HIF2Î± PAS-B domain of the HIF2 transcription factor. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 450-455.	7.1	248
56	ARNT PAS-B has a fragile native state structure with an alternative Î²-sheet register nearby in sequence space. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 2617-2622.	7.1	29
57	Regulation of C-type Lectin Antimicrobial Activity by a Flexible N-terminal Prosegment. Journal of Biological Chemistry, 2009, 284, 4881-4888.	3.4	84
58	Structure and Insight into Blue Light-Induced Changes in the BlrP1 BLUF Domain[,]. Biochemistry, 2009, 48, 2620-2629.	2.5	72
59	Slow Transition between Two Î²-Strand Registers Is Dictated by Protein Unfolding. Journal of the American Chemical Society, 2009, 131, 11306-11307.	13.7	12
60	Principles of Ligand Binding within a Completely Buried Cavity in HIF2Î± PAS-B. Journal of the American Chemical Society, 2009, 131, 17647-17654.	13.7	102
61	Blue light photosensors: Examples of environmentallyâ€regulated protein/protein interactions. FASEB Journal, 2009, 23, 432.2.	0.5	0
62	Molecular biophysics at UT Southwestern Medical Center: Strength through breadth. Biopolymers, 2008, 89, 244-247.	2.4	0
63	Estimation of the available free energy in a LOV2-JÎ± photoswitch. Nature Chemical Biology, 2008, 4, 491-497.	8.0	132
64	Changes at the KinA PAS-A Dimerization Interface Influence Histidine Kinase Function[,]. Biochemistry, 2008, 47, 4051-4064.	2.5	59
65	Structural Requirements for Key Residues and Auxiliary Portions of a BLUF Domain. Biochemistry, 2008, 47, 10271-10280.	2.5	46
66	A Conserved Glutamine Plays a Central Role in LOV Domain Signal Transmission and Its Duration. Biochemistry, 2008, 47, 13842-13849.	2.5	99
67	Regulation of Nuclear Import/Export of Carbohydrate Response Element-binding Protein (ChREBP). Journal of Biological Chemistry, 2008, 283, 24899-24908.	3.4	87
68	Molecular basis of transcriptional coactivator recruitment by ARNT PAS domains. FASEB Journal, 2008, 22, 825.2.	0.5	0
69	Hypoxiaâ€Inducible Factors Per/ARNT/Sim Domains: Structure and Function. Methods in Enzymology, 2007, 435, 1-24.	1.0	18
70	A LOVely view of blue light photosensing. Nature Chemical Biology, 2007, 3, 372-374.	8.0	7
71	O Acetylation of the Enterobacterial Common Antigen Polysaccharide Is Catalyzed by the Product of the yiaH Gene of Escherichia coli K-12. Journal of Bacteriology, 2006, 188, 7542-7550.	2.2	23
72	Mechanism of substrate specificity in Bacillus subtilis ResA, a thioredoxin-like protein involved in cytochrome c maturation. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4410-4415.	7.1	37

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73	Evolutionary information for specifying a protein fold. Nature, 2005, 437, 512-518.	27.8	374
74	Identification and Optimization of Protein Domains for NMR Studies. Methods in Enzymology, 2005, 394, 3-16.	1.0	19
75	Functions of the Per/ARNT/Sim Domains of the Hypoxia-inducible Factor. Journal of Biological Chemistry, 2005, 280, 36047-36054.	3.4	72
76	Structure of a bacterial BLUF photoreceptor: Insights into blue light-mediated signal transduction. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 12350-12355.	7.1	155
77	Can You Hear Me Now? Regulating Transcriptional Activators by Phosphorylation. Science Signaling, 2005, 2005, pe44-pe44.	3.6	17
78	Structural Basis of ARNT PAS-B Dimerization: Use of a Common Beta-sheet Interface for Hetero- and Homodimerization. Journal of Molecular Biology, 2005, 353, 664-677.	4.2	122
79	Identification of small-molecule antagonists that inhibit an activator:coactivator interaction. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 17622-17627.	7.1	180
80	Cyclic enterobacterial common antigen: Potential contaminant of bacterially expressed protein preparations. Journal of Biomolecular NMR, 2004, 29, 199-204.	2.8	12
81	Conformational Changes in a Photosensory LOV Domain Monitored by Time-Resolved NMR Spectroscopy. Journal of the American Chemical Society, 2004, 126, 3390-3391.	13.7	86
82	Disruption of the LOVâ˘'JÎ± Helix Interaction Activates Phototropin Kinase Activityâ€. Biochemistry, 2004, 43, 16184-16192.	2.5	276
83	Identification and Biosynthesis of Cyclic Enterobacterial Common Antigen in Escherichia coli. Journal of Bacteriology, 2003, 185, 1995-2004.	2.2	53
84	Structural Basis of a Phototropin Light Switch. Science, 2003, 301, 1541-1544.	12.6	708
85	Structural basis for PAS domain heterodimerization in the basic helix-loop-helix-PAS transcription factor hypoxia-inducible factor. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 15504-15509.	7.1	211
86	Cosolvent-induced transformation of a death domain tertiary structure. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 11151-11156.	7.1	11
87	PAS Domain-Mediated WC-1/WC-2 Interaction Is Essential for Maintaining the Steady-State Level of WC-1 and the Function of Both Proteins in Circadian Clock and Light Responses of Neurospora. Molecular and Cellular Biology, 2002, 22, 517-524.	2.3	160
88	Multidimensional 2H-Based NMR Methods for Resonance Assignment, Structure Determination, and The Study of Protein Dynamics. , 2002, , 27-74.		2
89	White Collar-1, a DNA Binding Transcription Factor and a Light Sensor. Science, 2002, 297, 840-843.	12.6	401
90	Structure and Interactions of PAS Kinase N-Terminal PAS Domain. Structure, 2002, 10, 1349-1361.	3.3	140

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91	1H, 13C and 15N chemical shift assignments of the N-terminal PAS domain of mNPAS2. Journal of Biomolecular NMR, 2001, 21, 383-384.	2.8	9
92	The plug domain of FepA, a TonB-dependent transport protein from Escherichia coli, binds its siderophore in the absence of the transmembrane barrel domain. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 10676-10681.	7.1	59
93	PAS kinase: An evolutionarily conserved PAS domain-regulated serine/threonine kinase. Proceedings of the National Academy of Sciences of the United States of America, 2001, 98, 8991-8996.	7.1	98
94	1021 Preparation and analysis of penicilloic acid and penilloic acid using high resolution nuclear magnetic resonance. Journal of Allergy and Clinical Immunology, 2000, 105, S346.	2.9	2
95	A robust and cost-effective method for the production of Val, Leu, Ile (delta 1) methyl-protonated 15N-, 13C-, 2H-labeled proteins. Journal of Biomolecular NMR, 1999, 13, 369-374.	2.8	461
96	The Use of ³¹P Relaxation Experiments to Probe the Effects of Nucleoside Analogs on DNA Dynamics. Phosphorus, Sulfur and Silicon and the Related Elements, 1999, 144, 301-304.	1.6	0
97	Subunit-specific backbone NMR assignments of a 64 kDa trp repressor/DNA complex: a role for N-terminal residues in tandem binding. Journal of Biomolecular NMR, 1998, 11, 307-318.	2.8	19
98	A Sensitive Pulse Scheme for Measuring the Backbone Dihedral Angle psi Based on Cross-correlation Between (13)C (alpha)- (1)Halpha Dipolar and Carbonyl Chemical Shift Anisotropy Relaxation Interactions. Journal of Biomolecular NMR, 1998, 11, 213-220.	2.8	43
99	Significantly Improved Resolution for NOE Correlations from Valine and Isoleucine (CÎ³2) Methyl Groups in15N,13C- and15N,13C,2H-Labeled Proteins. Journal of the American Chemical Society, 1998, 120, 4825-4831.	13.7	29
100	An NMR Experiment for Measuring Methylâˆ'Methyl NOEs in13C-Labeled Proteins with High Resolution. Journal of the American Chemical Society, 1998, 120, 7617-7625.	13.7	86
101	Solution NMR Studies of a 42 KDaEscherichiaColiMaltose Binding Protein/Î²-Cyclodextrin Complex:Â Chemical Shift Assignments and Analysis. Journal of the American Chemical Society, 1998, 120, 11738-11748.	13.7	142
102	THE USE OF2H,13C,15N MULTIDIMENSIONAL NMR GTO STUDY THE STRUCTURE AND DYNAMICS OF PROTEINS. Annual Review of Biophysics and Biomolecular Structure, 1998, 27, 357-406.	18.3	561
103	Global Folds of Highly Deuterated, Methyl-Protonated Proteins by Multidimensional NMR. Biochemistry, 1997, 36, 1389-1401.	2.5	244
104	Production and Incorporation of15N,13C,2H (1H-Î´1 Methyl) Isoleucine into Proteins for Multidimensional NMR Studies. Journal of the American Chemical Society, 1997, 119, 7599-7600.	13.7	248
105	Solution NMR spectroscopy beyond 25 kDa. Current Opinion in Structural Biology, 1997, 7, 722-731.	5.7	162
106	Zinc as a structural and folding element of proteins which interact with DNA. Journal of Inorganic Biochemistry, 1997, 67, 342.	3.5	0
107	Internet conferences in NMR spectroscopy. Progress in Nuclear Magnetic Resonance Spectroscopy, 1997, 31, 107-117.	7.5	4
108	Assignment of 15N, 13CÎ±, 13CÎ², and HN Resonances in an 15N,13C,2H Labeled 64 kDa Trp Repressorâˆ'Operator Complex Using Triple-Resonance NMR Spectroscopy and 2H-Decoupling. Journal of the American Chemical Society, 1996, 118, 6570-6579.	13.7	131

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109	Selective Methyl Group Protonation of Perdeuterated Proteins. Journal of Molecular Biology, 1996, 263, 627-636.	4.2	292
110	An (H)C(CO)NH-TOCSY pulse scheme for sequential assignment of protonated methyl groups in otherwise deuterated 15N, 13C-labeled proteins. Journal of Biomolecular NMR, 1996, 8, 351-356.	2.8	85
111	HeteroTOCSY-based experiments for measuring heteronuclear relaxation in nucleic acids and proteins. Journal of Biomolecular NMR, 1995, 6, 180-188.	2.8	15
112	Novel metal-binding proteins by design. Nature Structural and Molecular Biology, 1995, 2, 368-373.	8.2	100
113	Solution structure of the Kluyveromyces lactis LAC9 Cd2Cys6 DNA-binding domain. Nature Structural Biology, 1995, 2, 898-905.	9.7	29
114	113Cd-1H hetero TOCSY: A method for determining metal?protein connectivities. Journal of Biomolecular NMR, 1994, 4, 761-774.	2.8	16
115	Solution Structure of a DNA Dodecamer Containing the Anti-Neoplastic Agent Arabinosylcytosine: Combined Use of NMR, Restrained Molecular Dynamics, and Full Relaxation Matrix Refinement. Biochemistry, 1994, 33, 11460-11475.	2.5	55
116	Structure of the binuclear metal-binding site in the GAL4 transcription factor. Biochemistry, 1991, 30, 11292-11302.	2.5	61
117	Transcription factor TFIIIA stimulates DNA supercoiling promoted by a fractionated cell-free extract from Xenopus laevis. FEBS Journal, 1990, 192, 311-320.	0.2	1