Ann M Stock

List of Publications by Year
in descending order

80 papers	11,442 citations	71102 41 h-index	82547 72 g-index
85 all docs	85 docs citations	85 times ranked	8636 citing authors

#	Article	IF	Citations
1	Two-Component Signal Transduction. Annual Review of Biochemistry, 2000, 69, 183-215.	11.1	2,860
2	The Catalytic Pathway of Cytochrome P450cam at Atomic Resolution. Science, 2000, 287, 1615-1622.	12.6	1,298
3	Histidine kinases and response regulator proteins in two-component signaling systems. Trends in Biochemical Sciences, 2001, 26, 369-376.	7.5	841
4	Signal transduction in bacteria. Nature, 1990, 344, 395-400.	27.8	697
5	Biological Insights from Structures of Two-Component Proteins. Annual Review of Microbiology, 2009, 63, 133-154.	7.3	675
6	Three-dimensional structure of CheY, the response regulator of bacterial chemotaxis. Nature, 1989, 337, 745-749.	27.8	397
7	Bacterial response regulators: versatile regulatory strategies from common domains. Trends in Biochemical Sciences, 2007, 32, 225-234.	7.5	286
8	Structural relationships in the OmpR family of winged-helix transcription factors 1 1Edited by M. Gottesman. Journal of Molecular Biology, 1997, 269, 301-312.	4.2	260
9	The DNA-binding domain of OmpR: crystal structures of a winged helix transcription factor. Structure, 1997, 5, 109-124.	3.3	237
10	Structure of the magnesium-bound form of CheY and mechanism of phosphoryl transfer in bacterial chemotaxis. Biochemistry, 1993, 32, 13375-13380.	2.5	229
11	Molecular Information Processing: Lessons from Bacterial Chemotaxis. Journal of Biological Chemistry, 2002, 277, 9625-9628.	3.4	197
12	A tale of two components: a novel kinase and a regulatory switch. Nature Structural Biology, 2000, 7, 626-633.	9.7	190
13	Divalent metal ion binding to the CheY protein and its significance to phosphotransfer in bacterial chemotaxis. Biochemistry, 1990, 29, 5436-5442.	2.5	189
14	Sensory transduction in bacterial chemotaxis involves phosphotransfer between CHE proteins. Biochemical and Biophysical Research Communications, 1988, 151, 891-896.	2.1	188
15	Molecular strategies for phosphorylation-mediated regulation of response regulator activity. Current Opinion in Microbiology, 2010, 13, 160-167.	5.1	149
16	Crystal structure of the chemotaxis receptor methyltransferase CheR suggests a conserved structural motif for binding S-adenosylmethionine. Structure, 1997, 5, 545-558.	3.3	138
17	Universally applicable methods for monitoring response regulator aspartate phosphorylation both in vitro and in vivo using Phos-tag-based reagents. Analytical Biochemistry, 2008, 376, 73-82.	2.4	130
18	Mechanism of Activation for Transcription Factor PhoB Suggested by Different Modes of Dimerization in the Inactive and Active States. Structure, 2005, 13, 1353-1363.	3.3	119

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19	Structural Basis of Response Regulator Function. Annual Review of Microbiology, 2019, 73, 175-197.	7.3	118
20	Structure of the Staphylococcus aureus AgrA LytTR Domain Bound to DNA Reveals a Beta Fold with an Unusual Mode of Binding. Structure, 2008, 16, 727-735.	3.3	117
21	Structural Analysis and Solution Studies of the Activated Regulatory Domain of the Response Regulator ArcA: A Symmetric Dimer Mediated by the Î±4-Î²5-Î±5 Face. Journal of Molecular Biology, 2005, 349, 11-26.	4.2	114
22	Evidence of Intradomain and Interdomain Flexibility in an OmpR/PhoB Homolog from Thermotoga maritima. Structure, 2002, 10, 153-164.	3.3	100
23	N-terminal methylation of proteins: Structure, function and specificity. FEBS Letters, 1987, 220, 8-14.	2.8	97
24	Structural Analysis of the Domain Interface in DrrB, a Response Regulator of the OmpR/PhoB Subfamily. Journal of Bacteriology, 2003, 185, 4186-4194.	2.2	97
25	Structural basis for drug-induced allosteric changes to human Î²-cardiac myosin motor activity. Nature Communications, 2015, 6, 7974.	12.8	94
26	Chemotaxis receptor recognition by protein methyltransferase CheR. Nature Structural Biology, 1998, 5, 446-450.	9.7	88
27	Phosphorylation-dependent conformational changes and domain rearrangements in <i>Staphylococcus aureus</i> VraR activation. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 8525-8530.	7.1	83
28	A common dimerization interface in bacterial response regulators KdpE and TorR. Protein Science, 2005, 14, 3077-3088.	7.6	80
29	Domain Orientation in the Inactive Response RegulatorMycobacterium tuberculosisMtrA Provides a Barrier to Activationâ€,â€¡. Biochemistry, 2007, 46, 6733-6743.	2.5	76
30	Crystal Structures of the Receiver Domain of the Response Regulator PhoP from Escherichia coli in the Absence and Presence of the Phosphoryl Analog Beryllofluoride. Journal of Bacteriology, 2007, 189, 5987-5995.	2.2	74
31	Probing kinase and phosphatase activities of two-component systems in vivo with concentration-dependent phosphorylation profiling. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 672-677.	7.1	67
32	Activation of Methylesterase CheB:Â Evidence of a Dual Role for the Regulatory Domainâ€. Biochemistry, 1998, 37, 14038-14047.	2.5	66
33	Domain Arrangement of Der, a Switch Protein Containing Two GTPase Domains. Structure, 2002, 10, 1649-1658.	3.3	64
34	Regulation of Response Regulator Autophosphorylation through Interdomain Contacts. Journal of Biological Chemistry, 2010, 285, 32325-32335.	3.4	62
35	Phosphorylation causes subtle changes in solvent accessibility at the interdomain interface of methylesterase CheB 1 1Edited by P. E. Wright. Journal of Molecular Biology, 2001, 307, 967-976.	4.2	60
36	A New Perspective on Response Regulator Activation. Journal of Bacteriology, 2006, 188, 7328-7330.	2.2	57

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37	Identification of a Hydrophobic Cleft in the LytTR Domain of AgrA as a Locus for Small Molecule Interactions That Inhibit DNA Binding. Biochemistry, 2012, 51, 10035-10043.	2.5	53
38	Systemâ€level mapping of <i>Escherichia coli</i> response regulator dimerization with FRET hybrids. Molecular Microbiology, 2008, 69, 1358-1372.	2.5	50
39	Orientation of OmpR monomers within an OmpR:DNA complex determined by DNA affinity cleaving 1 1Edited by K. Yamamoto. Journal of Molecular Biology, 1999, 285, 555-566.	4.2	49
40	Inhibition of Bacterial Virulence: Drugâ€Like Molecules Targeting the <i>Salmonella enterica</i> PhoP Response Regulator. Chemical Biology and Drug Design, 2012, 79, 1007-1017.	3.2	49
41	Two-component systems. Current Biology, 2019, 29, R724-R725.	3.9	46
42	Crystal Structures of Beryllium Fluoride-free and Beryllium Fluoride-bound CheY in Complex with the Conserved C-terminal Peptide of CheZ Reveal Dual Binding Modes Specific to CheY Conformation. Journal of Molecular Biology, 2006, 359, 624-645.	4.2	45
43	Comprehensive Analysis of OmpR Phosphorylation, Dimerization, and DNA Binding Supports a Canonical Model for Activation. Journal of Molecular Biology, 2013, 425, 1612-1626.	4.2	45
44	Temporal Hierarchy of Gene Expression Mediated by Transcription Factor Binding Affinity and Activation Dynamics. MBio, 2015, 6, e00686-15.	4.1	40
45	Probing the Roles of the Two Different Dimers Mediated by the Receiver Domain of the Response Regulator PhoB. Journal of Molecular Biology, 2009, 389, 349-364.	4.2	39
46	Evolutionary Tuning of Protein Expression Levels of a Positively Autoregulated Two-Component System. PLoS Genetics, 2013, 9, e1003927.	3.5	32
47	Quantitative Kinetic Analyses of Shutting Off a Two-Component System. MBio, 2017, 8, .	4.1	27
48	Kinetic Basis for the Stimulatory Effect of Phosphorylation on the Methylesterase Activity of CheBâ€. Biochemistry, 2002, 41, 6752-6760.	2.5	25
49	Overcoming the Cost of Positive Autoregulation by Accelerating the Response with a Coupled Negative Feedback. Cell Reports, 2018, 24, 3061-3071.e6.	6.4	24
50	Drug-like Fragments Inhibit agr-Mediated Virulence Expression in Staphylococcus aureus. Scientific Reports, 2019, 9, 6786.	3.3	24
51	Discrimination between Different Methylation States of Chemotaxis Receptor Tar by Receptor Methyltransferase CheR. Biochemistry, 2004, 43, 953-961.	2.5	21
52	Stabilization of the Phospho-aspartyl Residue in a Two-Component Signal Transduction System inThermotogamaritimaâ€. Biochemistry, 1998, 37, 14575-14584.	2.5	20
53	Identification of Methylation Sites in Thermotoga maritima Chemotaxis Receptors. Journal of Bacteriology, 2006, 188, 4093-4100.	2.2	20
54	Relating dynamics to function. Nature, 1999, 400, 221-222.	27.8	19

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55	High energy exchange: proteins that make or break phosphoramidate bonds. Structure, 1999, 7, R47-R53.	3.3	18
56	Synthesis of [32P]Phosphoramidate for Use as a Low Molecular Weight Phosphodonor Reagent. Analytical Biochemistry, 2000, 283, 222-227.	2.4	18
57	Characterization of theThermotoga maritimachemotaxis methylation system that lacks pentapeptide-dependent methyltransferase CheR:MCP tethering. Molecular Microbiology, 2007, 63, 363-378.	2.5	18
58	Crystallization, Xâ€ray studies, and siteâ€directed cysteine mutagenesis of the DNAâ€binding domain of OmpR. Protein Science, 1996, 5, 1429-1433.	7.6	15
59	Evidence for phosphorylationâ€dependent conformational changes in methylesterase CheB. Protein Science, 2000, 9, 898-906.	7.6	15
60	Interaction of CheY with the C-Terminal Peptide of CheZ. Journal of Bacteriology, 2008, 190, 1419-1428.	2.2	13
61	Purification, crystallization, and preliminary X-ray diffraction analyses of the bacterial chemotaxis receptor modifying enzymes. Proteins: Structure, Function and Bioinformatics, 1995, 21, 345-350.	2.6	11
62	Synthesis and Biochemical Characterization of a Phosphorylated Analogue of the Response Regulator CheBâ€. Biochemistry, 2001, 40, 12896-12903.	2.5	11
63	Quantitative Analysis of Intracellular Response Regulator Phosphatase Activity of Histidine Kinases. Methods in Enzymology, 2018, 607, 301-319.	1.0	11
64	A balancing act in transcription regulation by response regulators: titration of transcription factor activity by decoy DNA binding sites. Nucleic Acids Research, 2021, 49, 11537-11549.	14.5	11
65	Thiol-based functional mimicry of phosphorylation of the two-component system response regulator ArcA promotes pathogenesis in enteric pathogens. Cell Reports, 2021, 37, 110147.	6.4	11
66	What do archaeal and eukaryotic histidine kinases sense?. F1000Research, 2019, 8, 2145.	1.6	10
67	Response Regulator Proteins and Their Interactions with Histidine Protein Kinases. , 2003, , 237-271.		9
68	Counterbalancing Regulation in Response Memory of a Positively Autoregulated Two-Component System. Journal of Bacteriology, 2017, 199, .	2.2	7
69	Structural asymmetry does not indicate hemiphosphorylation in the bacterial histidine kinase CpxA. Journal of Biological Chemistry, 2020, 295, 8106-8117.	3.4	4
70	Cytokinin Sensing in Bacteria. Biomolecules, 2020, 10, 186.	4.0	4
71	PROTEIN METHYLTRANSFERASES INVOLVED IN SIGNAL TRANSDUCTION. , 1999, , 149-183.		2
72	Classic Spotlight: Crowd Sourcing Provided Penicillium Strains for the War Effort. Journal of Bacteriology, 2016, 198, 877-877.	2.2	2

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73	Two-Component Signal Transduction and Chemotaxis. , 0, , 17-36.		2
74	The PLOS Biology XV Collection: 15 Years of Exceptional Science Highlighted across 12 Months. PLoS Biology, 2019, 17, e3000180.	5.6	1
75	Classic Spotlight: a Window on Multicellular Development. Journal of Bacteriology, 2016, 198, 602-602.	2.2	0
76	Classic Spotlight: Managing Stress. Journal of Bacteriology, 2016, 198, 2549-2549.	2.2	0
77	Classic Spotlight: Selected Highlights from the First 100 Years of the <i>Journal of Bacteriology</i>. Journal of Bacteriology, 2017, 199, .	2.2	0
78	Two-Component Signal Transduction: a Special Issue in the <i>Journal of Bacteriology</i>. Journal of Bacteriology, 2017, 199, .	2.2	0
79	Call for Original Research Papers for a Special Collection in <i>Journal of Bacteriology</i> : Two-Component Signal Transduction. Journal of Bacteriology, 2017, 199, .	2.2	0
80	Physical Models of transcription factors activated via histidine kinase twoâ€component signal transduction signaling pathways. FASEB Journal, 2009, 23, 495.18.	0.5	0