Robert B Bourret

List of Publications by Year
in descending order

44 papers	1,733 citations	304743 22 h-index	276875 41 g-index
47 all docs	47 docs citations	47 times ranked	1291 citing authors

#	Article	IF	Citations
1	Receiver domain structure and function in response regulator proteins. Current Opinion in Microbiology, 2010, 13, 142-149.	5.1	217
2	Molecular Information Processing: Lessons from Bacterial Chemotaxis. Journal of Biological Chemistry, 2002, 277, 9625-9628.	3.4	197
3	Intermolecular complementation of the kinase activity of CheA. Molecular Microbiology, 1993, 8, 435-441.	2.5	123
4	Two-component signal transduction. Current Opinion in Microbiology, 2010, 13, 113-115.	5.1	112
5	Structure and catalytic mechanism of the E. coli chemotaxis phosphatase CheZ. Nature Structural Biology, 2002, 9, 570-5.	9.7	104
6	[15] Phosphorylation assays for proteins of the two-component regulatory system controlling chemotaxis in Escherichia coli. Methods in Enzymology, 1991, 200, 188-204.	1.0	70
7	Proposed Signal Transduction Role for Conserved CheY Residue Thr87, a Member of the Response Regulator Active-Site Quintet. Journal of Bacteriology, 1998, 180, 3563-3569.	2.2	67
8	Two variable active site residues modulate response regulator phosphoryl group stability. Molecular Microbiology, 2008, 69, 453-465.	2.5	66
9	Catalytic Mechanism of Phosphorylation and Dephosphorylation of CheY:Â Kinetic Characterization of Imidazole Phosphates as Phosphodonors and the Role of Acid Catalysisâ€. Biochemistry, 1997, 36, 14965-14974.	2.5	63
10	CheX Is a Phosphorylated CheY Phosphatase Essential for Borrelia burgdorferi Chemotaxis. Journal of Bacteriology, 2005, 187, 7963-7969.	2.2	59
11	Throwing the switch in bacterial chemotaxis. Trends in Microbiology, 1999, 7, 16-22.	7.7	51
12	A search for amino acid substitutions that universally activate response regulators. Molecular Microbiology, 2003, 51, 887-901.	2.5	47
13	Mutations in the chemotactic response regulator, CheY, that confer resistance to the phosphatase activity of CheZ. Molecular Microbiology, 1995, 15, 1069-1079.	2.5	45
14	Isolation and Characterization of Nonchemotactic CheZ Mutants of Escherichia coli. Journal of Bacteriology, 2000, 182, 3544-3552.	2.2	45
15	A Link between Dimerization and Autophosphorylation of the Response Regulator PhoB. Journal of Biological Chemistry, 2013, 288, 21755-21769.	3.4	42
16	Alteration of a Nonconserved Active Site Residue in the Chemotaxis Response Regulator CheY Affects Phosphorylation and Interaction with CheZ. Journal of Biological Chemistry, 2001, 276, 18478-18484.	3.4	36
17	Kinetic Characterization of Catalysis by the Chemotaxis Phosphatase CheZ. Journal of Biological Chemistry, 2008, 283, 756-765.	3.4	35
18	Activation of CheY mutant D57N by phosphorylation at an alternative site, Ser-56. Molecular Microbiology, 1999, 34, 915-925.	2.5	31

#	Article	IF	Citations
19	Matching Biochemical Reaction Kinetics to the Timescales of Life: Structural Determinants That Influence the Autodephosphorylation Rate of Response Regulator Proteins. Journal of Molecular Biology, 2009, 392, 1205-1220.	4.2	28
20	CheZ-Mediated Dephosphorylation of the Escherichia coli Chemotaxis Response Regulator CheY: Role for CheY Glutamate 89. Journal of Bacteriology, 2003, 185, 1495-1502.	2.2	27
21	Nonconserved Active Site Residues Modulate CheY Autophosphorylation Kinetics and Phosphodonor Preference. Biochemistry, 2013, 52, 2262-2273.	2.5	27
22	Investigation of the Role of Electrostatic Charge in Activation of the Escherichia coli Response Regulator CheY. Journal of Bacteriology, 2003, 185, 6385-6391.	2.2	23
23	Phosphoryl Group Flow within the Pseudomonas aeruginosa Pil-Chp Chemosensory System. Journal of Biological Chemistry, 2016, 291, 17677-17691.	3.4	22
24	Chemotactic response regulator mutant CheY95IV exhibits enhanced binding to the flagellar switch and phosphorylationâ€dependent constitutive signalling. Molecular Microbiology, 1998, 27, 1065-1075.	2.5	20
25	Measurement of Response Regulator Autodephosphorylation Rates Spanning Six Orders of Magnitude. Methods in Enzymology, 2010, 471, 89-114.	1.0	19
26	Experimental Analysis of Functional Variation within Protein Families: Receiver Domain Autodephosphorylation Kinetics. Journal of Bacteriology, 2016, 198, 2483-2493.	2.2	19
27	A Variable Active Site Residue Influences the Kinetics of Response Regulator Phosphorylation and Dephosphorylation. Biochemistry, 2016, 55, 5595-5609.	2.5	16
28	Action at a Distance: Amino Acid Substitutions That Affect Binding of the Phosphorylated CheY Response Regulator and Catalysis of Dephosphorylation Can Be Far from the CheZ Phosphatase Active Site. Journal of Bacteriology, 2011, 193, 4709-4718.	2.2	13
29	Signal transduction meets systems biology: deciphering specificity determinants for proteinâ€“protein interactions. Molecular Microbiology, 2008, 69, 1336-1340.	2.5	11
30	Probing Mechanistic Similarities between Response Regulator Signaling Proteins and Haloacid Dehalogenase Phosphatases. Biochemistry, 2015, 54, 3514-3527.	2.5	10
31	Modulation of Response Regulator CheY Reaction Kinetics by Two Variable Residues That Affect Conformation. Journal of Bacteriology, 2020, 202, .	2.2	10
32	A Radical Reimagining of Fungal Two-Component Regulatory Systems. Trends in Microbiology, 2021, 29, 883-893.	7.7	9
33	Azorhizobium caulinodans Chemotaxis Is Controlled by an Unusual Phosphorelay Network. Journal of Bacteriology, 2022, 204, JB0052721.	2.2	9
34	Census of Prokaryotic Senses. Journal of Bacteriology, 2006, 188, 4165-4168.	2.2	8
35	Imidazole as a Small Molecule Analogue in Two-Component Signal Transduction. Biochemistry, 2015, 54, 7248-7260.	2.5	8
36	Role of Position K+4 in the Phosphorylation and Dephosphorylation Reaction Kinetics of the CheY Response Regulator. Biochemistry, 2021, 60, 2130-2151.	2.5	4

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37	Fluorescence Measurement of Kinetics of CheY Autophosphorylation with Small Molecule Phosphodonors. Methods in Molecular Biology, 2018, 1729, 321-335.	0.9	3
38	Measuring the Activities of Two-Component Regulatory System Phosphatases. Methods in Enzymology, 2018, 607, 321-351.	1.0	3
39	Generalizable strategy to analyze domains in the context of parent protein architecture: A <scp>CheW</scp> case study. Proteins: Structure, Function and Bioinformatics, 2022, 90, 1973-1986.	2.6	2
40	Learning from Adversity?. Journal of Bacteriology, 2017, 199, .	2.2	1
41	Predicted Functional and Structural Diversity of Receiver Domains in Fungal Two-Component Regulatory Systems. MSphere, 2021, 6, e0072221.	2.9	1
42	Chemotactic response regulator mutant CheY95IV exhibits enhanced binding to the flagellar switch and phosphorylation-dependent constitutive signalling. Molecular Microbiology, 2002, 28, 863-863.	2.5	0
43	Editorial: An Inaugural Series of Thematic MicroReviews from the BLAST Meeting. Molecular Microbiology, 2017, 103, 195-196.	2.5	0
44	Announcement of the 2019 BLAST Conference: â€œBLAST XV: 15th International Conference on Bacterial Locomotion and Signal Transductionâ€. MSystems, 2018, 3, .	3.8	0