Zhao-Xun Liang

List of Publications by Year
in descending order

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78	3,402	117453	155451
papers	citations	34 h-index	55 g-index

84	84	84	3274
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	YybT Is a Signaling Protein That Contains a Cyclic Dinucleotide Phosphodiesterase Domain and a GGDEF Domain with ATPase Activity. Journal of Biological Chemistry, 2010, 285, 473-482.	1.6	231
2	Catalytic Mechanism of Cyclic Di-GMP-Specific Phosphodiesterase: a Study of the EAL Domain-Containing RocR fromPseudomonas aeruginosa. Journal of Bacteriology, 2008, 190, 3622-3631.	1.0	224
3	MrkH, a Novel c-di-GMP-Dependent Transcriptional Activator, Controls Klebsiella pneumoniae Biofilm Formation by Regulating Type 3 Fimbriae Expression. PLoS Pathogens, 2011, 7, e1002204.	2.1	195
4	Thermal-activated protein mobility and its correlation with catalysis in thermophilic alcohol dehydrogenase. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 9556-9561.	3.3	134
5	Structural bases of hydrogen tunneling in enzymes: progress and puzzles. Current Opinion in Structural Biology, 2004, 14, 648-655.	2.6	104
6	The Functional Role of a Conserved Loop in EAL Domain-Based Cyclic di-GMP-Specific Phosphodiesterase. Journal of Bacteriology, 2009, 191, 4722-4731.	1.0	100
7	Dynamic Docking and Electron Transfer between Zn-myoglobin and Cytochromeb5. Journal of the American Chemical Society, 2002, 124, 6849-6859.	6.6	98
8	Dynamic Docking and Electron-Transfer between Cytochromeb5and a Suite of Myoglobin Surface-Charge Mutants. Introduction of a Functional-Docking Algorithm for Proteinâ^'Protein Complexes. Journal of the American Chemical Society, 2004, 126, 2785-2798.	6.6	88
9	Enzymatic synthesis of c-di-GMP using a thermophilic diguanylate cyclase. Analytical Biochemistry, 2009, 389, 138-142.	1.1	83
10	The expanding roles of c-di-GMP in the biosynthesis of exopolysaccharides and secondary metabolites. Natural Product Reports, 2015, 32, 663-683.	5.2	81
11	A Flavin Cofactor-Binding PAS Domain Regulates c-di-GMP Synthesis in AxDGC2 from Acetobacter xylinum. Biochemistry, 2009, 48, 10275-10285.	1.2	79
12	Binding of Cyclic Diguanylate in the Non-catalytic EAL Domain of FimX Induces a Long-range Conformational Change. Journal of Biological Chemistry, 2011, 286, 2910-2917.	1.6	73
13	Crystal Structure and Amide H/D Exchange of Binary Complexes of Alcohol Dehydrogenase fromBacillus stearothermophilus:Â Insight into Thermostability and Cofactor Bindingâ€,â€¡. Biochemistry, 2004, 43, 5266-5277.	1.2	69
14	Multifunctional Antimicrobial Nanofiber Dressings Containing Îµ-Polylysine for the Eradication of Bacterial Bioburden and Promotion of Wound Healing in Critically Colonized Wounds. ACS Applied Materials & Interfaces, 2020, 12, 15989-16005.	4.0	69
15	Complexity and simplicity in the biosynthesis of enediyne natural products. Natural Product Reports, 2010, 27, 499.	5.2	68
16	Evidence for Increased Local Flexibility in Psychrophilic Alcohol Dehydrogenase Relative to Its Thermophilic Homologue. Biochemistry, 2004, 43, 14676-14683.	1.2	62
17	A cyclic di-GMPâ€“binding adaptor protein interacts with a chemotaxis methyltransferase to control flagellar motor switching. Science Signaling, 2016, 9, ra102.	1.6	61
18	Cyclicâ€diâ€‹<scp>AMP</scp> synthesis by the diadenylate cyclase <scp>CdaA</scp> is modulated by the peptidoglycan biosynthesis enzyme <scp>GlmM</scp> in <scp>L</scp>actococcus lactis. Molecular Microbiology, 2016, 99, 1015-1027.	1.2	61

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19	Enhanced uptake of potassium or glycine betaine or export of cyclic-di-AMP restores osmoresistance in a high cyclic-di-AMP Lactococcus lactis mutant. PLoS Genetics, 2018, 14, e1007574.	1.5	61
20	Unusual Heme-Binding PAS Domain from YybT Family Proteins. Journal of Bacteriology, 2011, 193, 1543-1551.	1.0	60
21	Sequencing and functional annotation of the whole genome of the filamentous fungus Aspergillus westerdijkiae. BMC Genomics, 2016, 17, 633.	1.2	58
22	Structural Insights into the Regulatory Mechanism of the Response Regulator RocR from Pseudomonas aeruginosa in Cyclic Di-GMP Signaling. Journal of Bacteriology, 2012, 194, 4837-4846.	1.0	57
23	Synthesis of (R)-Mellein by a Partially Reducing Iterative Polyketide Synthase. Journal of the American Chemical Society, 2012, 134, 11924-11927.	6.6	49
24	The structure and inhibition of a GGDEF diguanylate cyclase complexed with (c-di-GMP)₂at the active site. Acta Crystallographica Section D: Biological Crystallography, 2011, 67, 997-1008.	2.5	48
25	Structural Insights into the Distinct Binding Mode of Cyclic Di-AMP with SaCpaA_RCK. Biochemistry, 2015, 54, 4936-4951.	1.2	48
26	Impact of Protein Flexibility on Hydride-Transfer Parameters in Thermophilic and Psychrophilic Alcohol Dehydrogenases. Journal of the American Chemical Society, 2004, 126, 9500-9501.	6.6	47
27	Identification of a biosynthetic gene cluster for the polyene macrolactam sceliphrolactam in a Streptomyces strain isolated from mangrove sediment. Scientific Reports, 2018, 8, 1594.	1.6	46
28	Structure and Catalytic Mechanism of the Thioesterase CalE7 in Enediyne Biosynthesis. Journal of Biological Chemistry, 2009, 284, 15739-15749.	1.6	42
29	Progress in Understanding the Molecular Basis Underlying Functional Diversification of Cyclic Dinucleotide Turnover Proteins. Journal of Bacteriology, 2017, 199, .	1.0	41
30	Electrostatic Control of Electron Transfer between Myoglobin and Cytochrome b5:â€‰ Effect of Methylating the Heme Propionates of Zn-Myoglobin. Journal of the American Chemical Society, 2000, 122, 3552-3553.	6.6	40
31	A Cyclic di-GMP-binding Adaptor Protein Interacts with Histidine Kinase to Regulate Two-component Signaling. Journal of Biological Chemistry, 2016, 291, 16112-16123.	1.6	40
32	Crystal Structure of the Acyltransferase Domain of the Iterative Polyketide Synthase in Enediyne Biosynthesis. Journal of Biological Chemistry, 2012, 287, 23203-23215.	1.6	38
33	The <scp>EAL</scp>â€like protein <scp>STM</scp>1697 regulates virulence phenotypes, motility and biofilm formation in <scp>S</scp>almonella typhimurium. Molecular Microbiology, 2013, 90, 1216-1232.	1.2	38
34	Characterization of a Carbonyl-Conjugated Polyene Precursor in 10-Membered Enediyne Biosynthesis. Journal of the American Chemical Society, 2008, 130, 8142-8143.	6.6	37
35	Visualizing the Perturbation of Cellular Cyclic di-GMP Levels in Bacterial Cells. Journal of the American Chemical Society, 2013, 135, 566-569.	6.6	37
36	Insights into Biofilm Dispersal Regulation from the Crystal Structure of the PAS-GGDEF-EAL Region of RbdA from Pseudomonas aeruginosa. Journal of Bacteriology, 2018, 200, .	1.0	37

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37	Novel c-di-GMP recognition modes of the mouse innate immune adaptor protein STING. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 352-366.	2.5	36
38	Photoinduced Electron Transfer in a Supramolecular Species Building of Mono-6-p-nitrobenzoyl-Î²-cyclodextrin with Naphthalene Derivatives. Journal of Organic Chemistry, 2002, 67, 2429-2434.	1.7	31
39	Replenishing the cyclic-di-AMP pool: regulation of diadenylate cyclase activity in bacteria. Current Genetics, 2016, 62, 731-738.	0.8	31
40	Biosynthesis of Tasikamides via Pathway Coupling and Diazonium-Mediated Hydrazone Formation. Journal of the American Chemical Society, 2022, 144, 1622-1633.	6.6	31
41	Dynamic docking and electron transfer between myoglobin and cytochrome b 5. Journal of Biological Inorganic Chemistry, 2002, 7, 580-588.	1.1	30
42	Products of the iterative polyketide synthases in 9- and 10-membered enediyne biosynthesis. Chemical Communications, 2009, , 7399.	2.2	30
43	Insight into Enzymatic Nitrile Reduction: QM/MM Study of the Catalytic Mechanism of QueF Nitrile Reductase. ACS Catalysis, 2015, 5, 3740-3751.	5.5	28
44	Solution Structure of the PAS Domain of a Thermophilic YybT Protein Homolog Reveals a Potential Ligand-binding Site. Journal of Biological Chemistry, 2013, 288, 11949-11959.	1.6	27
45	Structural analyses unravel the molecular mechanism of cyclic di-GMP regulation of bacterial chemotaxis via a PilZ adaptor protein. Journal of Biological Chemistry, 2018, 293, 100-111.	1.6	25
46	Solution Structures of the Acyl Carrier Protein Domain from the Highly Reducing Type I Iterative Polyketide Synthase CalE8. PLoS ONE, 2011, 6, e20549.	1.1	25
47	Evidence for a novel phosphopantetheinyl transferase domain in the polyketide synthase for enediyne biosynthesis. FEBS Letters, 2008, 582, 1097-1103.	1.3	24
48	Sungeidines from a Non-canonical Enediyne Biosynthetic Pathway. Journal of the American Chemical Society, 2020, 142, 1673-1679.	6.6	24
49	Expression, purification and characterization of the acyl carrier protein phosphodiesterase from Pseudomonas Aeruginosa. Protein Expression and Purification, 2010, 71, 132-138.	0.6	23
50	Nitrile reductase as a biocatalyst: opportunities and challenges. Catalysis Science and Technology, 2014, 4, 2871-2876.	2.1	23
51	Functional Divergence of FimX in PilZ Binding and Type IV Pilus Regulation. Journal of Bacteriology, 2012, 194, 5922-5931.	1.0	22
52	Structure of a Diguanylate Cyclase from Thermotoga maritima: Insights into Activation, Feedback Inhibition and Thermostability. PLoS ONE, 2014, 9, e110912.	1.1	22
53	Emerging paradigms for PilZ domain-mediated C-di-GMP signaling. Biochemical Society Transactions, 2019, 47, 381-388.	1.6	22
54	Induced-fit upon Ligand Binding Revealed by Crystal Structures of the Hot-dog Fold Thioesterase in Dynemicin Biosynthesis. Journal of Molecular Biology, 2010, 404, 291-306.	2.0	21

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55	Regulation of flagellar motor switching by c-di-GMP phosphodiesterases in Pseudomonas aeruginosa. Journal of Biological Chemistry, 2019, 294, 13789-13799.	1.6	20
56	Solâ€“gel immobilization of a thermophilic diguanylate cyclase for enzymatic production of cyclic-di-GMP. Journal of Molecular Catalysis B: Enzymatic, 2010, 67, 98-103.	1.8	19
57	Integrated Genomic and Metabolomic Approach to the Discovery of Potential Anti-Quorum Sensing Natural Products from Microbes Associated with Marine Samples from Singapore. Marine Drugs, 2019, 17, 72.	2.2	16
58	Discovery, biosynthesis and antifungal mechanism of the polyene-polyol meijiemycin. Chemical Communications, 2020, 56, 822-825.	2.2	16
59	A study on the laser flash photolysis of phenothiazine and its N-alkyl derivatives. Journal of Photochemistry and Photobiology A: Chemistry, 1996, 93, 27-31.	2.0	15
60	MS/MS-Based Molecular Networking Approach for the Detection of Aplysiatoxin-Related Compounds in Environmental Marine Cyanobacteria. Marine Drugs, 2018, 16, 505.	2.2	14
61	Pathway Retrofitting Yields Insights into the Biosynthesis of Anthraquinone-Fused Enediynes. Journal of the American Chemical Society, 2021, 143, 11500-11509.	6.6	13
62	Dynamic swimming pattern of Pseudomonas aeruginosa near a vertical wall during initial attachment stages of biofilm formation. Scientific Reports, 2021, 11, 1952.	1.6	12
63	Rigidifying Acyl Carrier Protein Domain in Iterative Type I PKS CalE8 Does Not Affect Its Function. Biophysical Journal, 2012, 103, 1037-1044.	0.2	10
64	Complete Genome Sequence of the Filamentous Fungus Aspergillus westerdijkiae Reveals the Putative Biosynthetic Gene Cluster of Ochratoxin A. Genome Announcements, 2016, 4, .	0.8	10
65	Cyclic di-AMP Oversight of Counter-Ion Osmolyte Pools Impacts Intrinsic Cefuroxime Resistance in Lactococcus lactis. MBio, 2021, 12, .	1.8	10
66	Crystallization studies of the murine c-di-GMP sensor protein STING. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 906-910.	0.7	9
67	Insights into the programmed ketoreduction of partially reducing polyketide synthases: stereo- and substrate-specificity of the ketoreductase domain. Organic and Biomolecular Chemistry, 2014, 12, 8542-8549.	1.5	9
68	The MapZ-Mediated Methylation of Chemoreceptors Contributes to Pathogenicity of Pseudomonas aeruginosa. Frontiers in Microbiology, 2019, 10, 67.	1.5	8
69	Taming the flagellar motor of pseudomonads with a nucleotide messenger. Environmental Microbiology, 2020, 22, 2496-2513.	1.8	8
70	Finally! The structural secrets of a <scp>HD</scp>â€<scp>GYP</scp> phosphodiesterase revealed. Molecular Microbiology, 2014, 91, 1-5.	1.2	6
71	Rational Design of Fluorescent Biosensor for Cyclic diâ€GMP. ChemBioChem, 2011, 12, 2753-2758.	1.3	5
72	Crystallization and preliminary X-ray diffraction studies ofXanthomonas campestrisPNPase in the presence of c-di-GMP. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 1247-1250.	0.7	5

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73	Crystallization and preliminary X-ray diffraction characterization of theXccFimXEALâ€“c-di-GMP andXccFimXEALâ€“c-di-GMPâ€“XccPilZ complexes fromXanthomonas campestris. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 301-305.	0.7	5
74	Expression, purification and preliminary crystallographic analysis ofPseudomonas aeruginosaRocR protein. Acta Crystallographica Section F: Structural Biology Communications, 2009, 65, 1035-1038.	0.7	4
75	Enzymatic Production of c-di-GMP Using a Thermophilic Diguanylate Cyclase. Methods in Molecular Biology, 2017, 1657, 11-22.	0.4	4
76	Draft Genome Sequence of Nocardia jinanensis , an Opportunistic Bacterial Pathogen That Causes Cellulitis. Genome Announcements, 2016, 4, .	0.8	2
77	Osmoregulation via Cyclic di-AMP Signaling. , 2020, , 177-189.		1
78	YybT is a signaling protein that contains a cyclic dinucleotide phosphodiesterase domain and a GGDEF domain with ATPase activity.. Journal of Biological Chemistry, 2011, 286, 29441.	1.6	0