Katrina T Forest

List of Publications by Year
in descending order

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65 papers	4,390 citations	136950 32 h-index	128289 60 g-index
68 all docs	68 docs citations	68 times ranked	4398 citing authors

#	Article	IF	Citations
1	A light-sensing knot revealed by the structure of the chromophore-binding domain of phytochrome. Nature, 2005, 438, 325-331.	27.8	495
2	Structure of the fibre-forming protein pilin at 2.6 Ã... resolution. Nature, 1995, 378, 32-38.	27.8	488
3	Type IV pili: dynamics, biophysics and functional consequences. Nature Reviews Microbiology, 2019, 17, 429-440.	28.6	297
4	Type IV Pilin Structure and Assembly. Molecular Cell, 2003, 11, 1139-1150.	9.7	260
5	High Resolution Structure of Deinococcus Bacteriophytochrome Yields New Insights into Phytochrome Architecture and Evolution. Journal of Biological Chemistry, 2007, 282, 12298-12309.	3.4	215
6	Bacterial phytochromes: More than meets the light. Critical Reviews in Biochemistry and Molecular Biology, 2011, 46, 67-88.	5.2	192
7	Mutational Analysis of Deinococcus radiodurans Bacteriophytochrome Reveals Key Amino Acids Necessary for the Photochromicity and Proton Exchange Cycle of Phytochromes. Journal of Biological Chemistry, 2008, 283, 12212-12226.	3.4	180
8	Comparative single-cell genomics reveals potential ecological niches for the freshwater acI Actinobacteria lineage. ISME Journal, 2014, 8, 2503-2516.	9.8	137
9	Recognition of microbial glycans by human intelectin-1. Nature Structural and Molecular Biology, 2015, 22, 603-610.	8.2	133
10	Consequences of the loss of O-linked glycosylation of meningococcal type IV pilin on piliation and pilus-mediated adhesion. Molecular Microbiology, 1998, 27, 705-715.	2.5	120
11	Crystal Structures of the Pilus Retraction Motor PilT Suggest Large Domain Movements and Subunit Cooperation Drive Motility. Structure, 2007, 15, 363-376.	3.3	120
12	Structure-guided Engineering Enhances a Phytochrome-based Infrared Fluorescent Protein. Journal of Biological Chemistry, 2012, 287, 7000-7009.	3.4	109
13	3D structure/function analysis of PilX reveals how minor pilins can modulate the virulence properties of type IV pili. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 15888-15893.	7.1	105
14	Conformational changes of glucose/galactose-binding protein illuminated by open, unliganded, and ultra-high-resolution ligand-bound structures. Protein Science, 2007, 16, 1032-1041.	7.6	103
15	Crystallographic structure reveals phosphorylated pilin from Neisseria: phosphoserine sites modify type IV pilus surface chemistry and fibre morphology. Molecular Microbiology, 1999, 31, 743-752.	2.5	93
16	Targeting diverse proteinâ€“protein interaction interfaces with Î±/Î²-peptides derived from the Z-domain scaffold. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 4552-4557.	7.1	93
17	P. aeruginosa PilT Structures with and without Nucleotide Reveal a Dynamic Type IV Pilus Retraction Motor. Journal of Molecular Biology, 2010, 400, 1011-1021.	4.2	77
18	Type IV Pilin Structures: Insights on Shared Architecture, Fiber Assembly, Receptor Binding and Type II Secretion. Journal of Molecular Microbiology and Biotechnology, 2006, 11, 192-207.	1.0	70

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19	Tightening the Knot in Phytochrome by Single-Molecule Atomic Force Microscopy. Biophysical Journal, 2009, 96, 1508-1514.	0.5	69
20	Aquifex aeolicus PilT, Homologue of a Surface Motility Protein, Is a Thermostable Oligomeric NTPase. Journal of Bacteriology, 2002, 184, 6465-6471.	2.2	61
21	Structural insights into the Type II secretion nanomachine. Current Opinion in Structural Biology, 2012, 22, 208-216.	5.7	59
22	Origins of Fluorescence in Evolved Bacteriophytochromes. Journal of Biological Chemistry, 2014, 289, 32144-32152.	3.4	59
23	Cu, Zn superoxide dismutase structure from a microbial pathogen establishes a class with a conserved dimer interface 1 1Edited by D. C. Rees. Journal of Molecular Biology, 2000, 296, 145-153.	4.2	51
24	X-ray Crystallography Reveals a Reduced Substrate Complex of UDP-Galactopyranose Mutase Poised for Covalent Catalysis by Flavin,. Biochemistry, 2009, 48, 9171-9173.	2.5	46
25	Ligand Binding and Substrate Discrimination by UDP-Galactopyranose Mutase. Journal of Molecular Biology, 2009, 391, 327-340.	4.2	43
26	Evidence of a Bacterial Receptor for Lysozyme: Binding of Lysozyme to the Anti-Ïƒ Factor RsiV Controls Activation of the ECF Ïƒ Factor ÏƒV. PLoS Genetics, 2014, 10, e1004643.	3.5	40
27	The pilus-retraction protein PilT: ultrastructure of the biological assembly. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 978-982.	2.5	38
28	Effects of Single Î±-to-Î² Residue Replacements on Structure and Stability in a Small Protein: Insights from Quasiracemic Crystallization. Journal of the American Chemical Society, 2016, 138, 6498-6505.	13.7	38
29	Functional Dissection of a Conserved Motif within the Pilus Retraction Protein PilT. Journal of Bacteriology, 2005, 187, 611-618.	2.2	37
30	Quasiracemic Crystallization as a Tool To Assess the Accommodation of Noncanonical Residues in Nativelike Protein Conformations. Journal of the American Chemical Society, 2012, 134, 2473-2476.	13.7	34
31	Evidence for Phenylalanine Zipper-Mediated Dimerization in the X-ray Crystal Structure of a Magainin 2 Analogue. Journal of the American Chemical Society, 2013, 135, 15738-15741.	13.7	34
32	Virtual Screening for UDP-Galactopyranose Mutase Ligands Identifies a New Class of Antimycobacterial Agents. ACS Chemical Biology, 2015, 10, 2209-2218.	3.4	34
33	High-resolution structures of a heterochiral coiled coil. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13144-13149.	7.1	33
34	Structures of Xenopus Embryonic Epidermal Lectin Reveal a Conserved Mechanism of Microbial Glycan Recognition. Journal of Biological Chemistry, 2016, 291, 5596-5610.	3.4	33
35	A Widespread Bacterial Secretion System with Diverse Substrates. MBio, 2021, 12, e0195621.	4.1	30
36	Structure-Based Design of a Periplasmic Binding Protein Antagonist that Prevents Domain Closure. ACS Chemical Biology, 2009, 4, 447-456.	3.4	25

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37	Stilbene Boronic Acids Form a Covalent Bond with Human Transthyretin and Inhibit Its Aggregation. Journal of Medicinal Chemistry, 2017, 60, 7820-7834.	6.4	25
38	Removal of Chromophore-Proximal Polar Atoms Decreases Water Content and Increases Fluorescence in a Near Infrared Phytofluor. Frontiers in Molecular Biosciences, 2015, 2, 65.	3.5	24
39	Reconstitution of a minimal machinery capable of assembling periplasmic type IV pili. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E4978-E4986.	7.1	23
40	A Polyketide Synthase Acyltransferase Domain Structure Suggests a Recognition Mechanism for Its Hydroxymalonyl-Acyl Carrier Protein Substrate. PLoS ONE, 2014, 9, e110965.	2.5	23
41	Cellâ€free production of integral membrane aspartic acid proteases reveals zincâ€dependent methyltransferase activity of the <scp>P</scp>seudomonas aeruginosa prepilin peptidase PilD. MicrobiologyOpen, 2013, 2, 94-104.	3.0	21
42	Metabolic Network Analysis and Metatranscriptomics Reveal Auxotrophies and Nutrient Sources of the Cosmopolitan Freshwater Microbial Lineage acI. MSystems, 2017, 2, .	3.8	21
43	Quasiracemate Crystal Structures of Magainin 2 Derivatives Support the Functional Significance of the Phenylalanine Zipper Motif. Journal of the American Chemical Society, 2015, 137, 11884-11887.	13.7	20
44	Structural interactions define assembly adapter function of a type II secretion system pseudopilin. Structure, 2021, 29, 1116-1127.e8.	3.3	20
45	Retention of Native Quaternary Structure in Racemic Melittin Crystals. Journal of the American Chemical Society, 2019, 141, 7704-7708.	13.7	19
46	A Hendecad Motif Is Preferred for Heterochiral Coiled-Coil Formation. Journal of the American Chemical Society, 2019, 141, 1583-1592.	13.7	19
47	Structure of the minor pseudopilin XcpW from thePseudomonas aeruginosatype II secretion system. Acta Crystallographica Section D: Biological Crystallography, 2011, 67, 124-130.	2.5	18
48	Evaluation of Î²â€Amino Acid Replacements in Protein Loops: Effects on Conformational Stability and Structure. ChemBioChem, 2018, 19, 604-612.	2.6	18
49	The type II secretion arrowhead: the structure of Gspâ€“Gspâ€“GspK. Nature Structural and Molecular Biology, 2008, 15, 428-430.	8.2	15
50	acI Actinobacteria Assemble a Functional Actinorhodopsin with Natively Synthesized Retinal. Applied and Environmental Microbiology, 2018, 84, .	3.1	15
51	Evidence for small-molecule-mediated loop stabilization in the structure of the isolated Pin1 WW domain. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 2506-2512.	2.5	10
52	Light on the cell cycle of the non-photosynthetic bacterium Ramlibacter tataouinensis. Scientific Reports, 2019, 9, 16505.	3.3	8
53	Arm-in-Arm Response Regulator Dimers Promote Intermolecular Signal Transduction. Journal of Bacteriology, 2016, 198, 1218-1229.	2.2	7
54	Vivid watercolor paintbox for eukaryotic algae. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 5448-5449.	7.1	5

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55	The non-detergent sulfobetaine-201 acts as a pharmacological chaperone to promote folding and crystallization of the type II TGF-Î² receptor extracellular domain. Protein Expression and Purification, 2015, 115, 19-25.	1.3	5
56	Shearing and Enrichment of Extracellular Type IV Pili. Methods in Molecular Biology, 2017, 1615, 311-320.	0.9	5
57	Structure and Assembly of Type IV Pilins. , 0, , 81-100.		4
58	A Surface Exposed, Two-Domain Lipoprotein Cargo of a Type XI Secretion System Promotes Colonization of Host Intestinal Epithelia Expressing Glycans. Frontiers in Microbiology, 2022, 13, 800366.	3.5	3
59	Editorial overview: Macromolecular machines and assemblies: Rise and fall at the molecular level. Current Opinion in Structural Biology, 2015, 31, vii-viii.	5.7	2
60	Classic Spotlight: Crowd Sourcing Provided Penicillium Strains for the War Effort. Journal of Bacteriology, 2016, 198, 877-877.	2.2	2
61	Conformational Control of UDP-Galactopyranose Mutase Inhibition. Biochemistry, 2017, 56, 3983-3992.	2.5	2
62	Action at a distance in a light receptor. Nature, 2014, 509, 174-175.	27.8	1
63	Cryo-ET Characterization of Novel Cellular Extrusions in Escherichia coli Induced by the Major Subunit Protein of Type IV Pili, PilA, from Pseudomonas aeruginosa. Microscopy and Microanalysis, 2021, 27, 280-282.	0.4	0
64	Structure and Mechanism of Phytochrome. FASEB Journal, 2009, 23, 432.1.	0.5	0
65	Î²-Amino Acid Replacements in Protein Loops. ChemistryViews, 0, , .	0.0	0