Allan Merrill

List of Publications by Year
in descending order

74 papers	2,103 citations	218677 26 h-index	265206 42 g-index
78 all docs	78 docs citations	78 times ranked	1777 citing authors

#	Article	IF	Citations
1	Structures of modified eEF2Â·80S ribosome complexes reveal the role of GTP hydrolysis in translocation. EMBO Journal, 2007, 26, 2421-2431.	7.8	171
2	Cholix Toxin, a Novel ADP-ribosylating Factor from Vibrio cholerae. Journal of Biological Chemistry, 2008, 283, 10671-10678.	3.4	126
3	Exotoxin Aâ€"eEF2 complex structure indicates ADP ribosylation by ribosome mimicry. Nature, 2005, 436, 979-984.	27.8	117
4	Stealth and mimicry by deadly bacterial toxins. Trends in Biochemical Sciences, 2006, 31, 123-133.	7.5	104
5	Identification of Small Molecule Inhibitors of Pseudomonas aeruginosa Exoenzyme S Using a Yeast Phenotypic Screen. PLoS Genetics, 2008, 4, e1000005.	3.5	84
6	The nature and character of the transition state for the ADPâ€ribosyltransferase reaction. EMBO Reports, 2008, 9, 802-809.	4.5	76
7	Atomic Force Microscopy Studies of a Floating-Bilayer Lipid Membrane on a Au(111) Surface Modified with a Hydrophilic Monolayer. Langmuir, 2011, 27, 10867-10877.	3.5	60
8	Needle in the haystack: structure-based toxin discovery. Trends in Biochemical Sciences, 2008, 33, 546-556.	7.5	58
9	Cholera- and Anthrax-Like Toxins Are among Several New ADP-Ribosyltransferases. PLoS Computational Biology, 2010, 6, e1001029.	3.2	53
10	Structureâ€"function analysis of water-soluble inhibitors of the catalytic domain of exotoxin A from Pseudomonas aeruginosa. Biochemical Journal, 2005, 385, 667-675.	3.7	49
11	Human Î±-defensins neutralize toxins of the mono-ADP-ribosyltransferase family. Biochemical Journal, 2006, 399, 225-229.	3.7	49
12	Crystal Structure of ADP-ribosylated Ribosomal Translocase from Saccharomyces cerevisiae. Journal of Biological Chemistry, 2004, 279, 45919-45925.	3.4	46
13	Investigation into the Catalytic Role for the Tryptophan Residues within Domain III ofPseudomonas aeruginosaExotoxin Aâ€. Biochemistry, 1996, 35, 15134-15142.	2.5	45
14	Scabin, a Novel DNA-acting ADP-ribosyltransferase from Streptomyces scabies. Journal of Biological Chemistry, 2016, 291, 11198-11215.	3.4	44
15	Characteristics of an Arabidopsis glyoxylate reductase: general biochemical properties and substrate specificity for the recombinant protein, and developmental expression and implications for glyoxylate and succinic semialdehyde metabolism in planta. Canadian Journal of Botany, 2007, 85, 883-895.	1.1	43
16	Photox, a Novel Actin-targeting Mono-ADP-ribosyltransferase from Photorhabdus luminescens. Journal of Biological Chemistry, 2010, 285, 13525-13534.	3.4	41
17	C3larvin Toxin, an ADP-ribosyltransferase from Paenibacillus larvae. Journal of Biological Chemistry, 2015, 290, 1639-1653.	3.4	41
18	Solution NMR studies of colicin E1 C-terminal thermolytic peptide. Structural comparison with colicin A and the effects of pH changes. FEBS Journal, 1990, 191, 155-161.	0.2	35

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19	Determination of membrane protein topology by red-edge excitation shift analysis: application to the membrane-bound colicin E1 channel peptide. Biochimica Et Biophysica Acta - Biomembranes, 2002, 1564, 435-448.	2.6	34
20	Adventures in Membrane Protein Topology. Journal of Biological Chemistry, 1999, 274, 24539-24549.	3.4	31
21	Insight into the Catalytic Mechanism of Pseudomonas aeruginosa Exotoxin A. Journal of Biological Chemistry, 2002, 277, 46669-46675.	3.4	31
22	Scanning the Membrane-bound Conformation of Helix 1 in the Colicin E1 Channel Domain by Site-directed Fluorescence Labeling. Journal of Biological Chemistry, 2006, 281, 885-895.	3.4	31
23	Newly Discovered and Characterized Antivirulence Compounds Inhibit Bacterial Mono-ADP-Ribosyltransferase Toxins. Antimicrobial Agents and Chemotherapy, 2011, 55, 983-991.	3.2	31
24	Certhrax Toxin, an Anthrax-related ADP-ribosyltransferase from Bacillus cereus. Journal of Biological Chemistry, 2012, 287, 41089-41102.	3.4	31
25	Sordarin Derivatives Induce a Novel Conformation of the Yeast Ribosome Translocation Factor eEF2. Journal of Biological Chemistry, 2007, 282, 657-666.	3.4	30
26	ProteinProtein Interaction Using Tryptophan Analogues:Â Novel Spectroscopic Probes for ToxinElongation Factor-2 Interactionsâ€. Biochemistry, 2001, 40, 10273-10283.	2.5	27
27	In Vitro Enzyme Activation and Folded Stability of Pseudomonas aeruginosa Exotoxin A and Its C-Terminal Peptide. Biochemistry, 1996, 35, 9042-9051.	2.5	25
28	Yeast as a tool for characterizing mono-ADP-ribosyltransferase toxins. FEMS Microbiology Letters, 2009, 300, 97-106.	1.8	25
29	Elucidation of eukaryotic elongation factor-2 contact sites within the catalytic domain of Pseudomonas aeruginosa exotoxin A. Biochemical Journal, 2004, 379, 563-572.	3.7	24
30	Electrochemical and STM Studies of 1-Thio-Î²-<scp>d</scp>-glucose Self-Assembled on a Au(111) Electrode Surface. Langmuir, 2011, 27, 13383-13389.	3.5	23
31	Identification of a Chameleon-like pH-Sensitive Segment within the Colicin E1 Channel Domain That May Serve as the pH-Activated Trigger for Membrane Bilayer Associationâ€. Biochemistry, 1997, 36, 6874-6884.	2.5	22
32	The Molecular Basis for the pH-activation Mechanism in the Channel-forming Bacterial Colicin E1. Journal of Biological Chemistry, 2003, 278, 24491-24499.	3.4	22
33	Characterization of Competitive Inhibitors for the Transferase Activity of Pseudomonas aeruginosa Exotoxin A. Journal of Enzyme Inhibition and Medicinal Chemistry, 2002, 17, 235-246.	5.2	21
34	The role of the diphthamide-containing loop within eukaryotic elongation factor 2 in ADP-ribosylation by <i>Pseudomonas aeruginosa</i> exotoxin A. Biochemical Journal, 2008, 413, 163-174.	3.7	21
35	A Fluorescence Investigation of the Active Site ofPseudomonas aeruginosa Exotoxin A. Journal of Biological Chemistry, 1999, 274, 15646-15654.	3.4	20
36	Toward the Elucidation of the Catalytic Mechanism of the Mono-ADP-Ribosyltransferase Activity ofPseudomonas aeruginosaExotoxin Aâ€. Biochemistry, 2004, 43, 183-194.	2.5	20

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37	Characterization of the toxin Plx2A, a RhoAâ€targeting ADPâ€ribosyltransferase produced by the honey bee pathogen <i>Paenibacillus larvae</i>. Environmental Microbiology, 2017, 19, 5100-5116.	3.8	20
38	The 1.8 Ã… Cholix Toxin Crystal Structure in Complex with NAD+ and Evidence for a New Kinetic Model. Journal of Biological Chemistry, 2012, 287, 21176-21188.	3.4	18
39	Characterization of oxidized nicotinamide adenine dinucleotide (NAD+) analogues using a high-pressure-liquid-chromatography-based NAD+-glycohydrolase assay and comparison with fluorescence-based measurements. Analytical Biochemistry, 2005, 340, 41-51.	2.4	17
40	ADP-Ribosylation of Cross-Linked Actin Generates Barbed-End Polymerization-Deficient F-Actin Oligomers. Biochemistry, 2010, 49, 8944-8954.	2.5	17
41	Linking Distinct Conformations of Nicotinamide Adenine Dinucleotide with Protein Fold/Function. Journal of Physical Chemistry B, 2011, 115, 7932-7939.	2.6	17
42	Kinetic mechanism of a recombinant Arabidopsis glyoxylate reductase: studies of initial velocity, dead-end inhibition and product inhibition. Canadian Journal of Botany, 2007, 85, 896-902.	1.1	15
43	Tilted, Extended, and Lying in Wait:â€‰ The Membrane-Bound Topology of Residues Lys-381âˆ’Ser-405 of the Colicin E1 Channel Domain. Biochemistry, 2007, 46, 6074-6085.	2.5	15
44	Characterization of Vis Toxin, a Novel ADP-Ribosyltransferase from <i>Vibrio splendidus</i>. Biochemistry, 2015, 54, 5920-5936.	2.5	15
45	Characterization of an Unfolding Intermediate and Kinetic Analysis of Guanidine Hydrochloride-Induced Denaturation of the Colicin E1 Channel Peptide. Biochemistry, 1997, 36, 3037-3046.	2.5	14
46	Evidence for the Amphipathic Nature and Tilted Topology of Helices 4 and 5 in the Closed State of the Colicin E1 Channel. Biochemistry, 2009, 48, 1369-1380.	2.5	14
47	Characterization of an Actin-targeting ADP-ribosyltransferase from Aeromonas hydrophila. Journal of Biological Chemistry, 2012, 287, 37030-37041.	3.4	14
48	Colicin E1 forms a dimer after urea-induced unfolding. Biochemical Journal, 1999, 340, 631-638.	3.7	13
49	The Father, Son and Cholix Toxin: The Third Member of the DT Group Mono-ADP-Ribosyltransferase Toxin Family. Toxins, 2015, 7, 2757-2772.	3.4	13
50	Characterization of the catalytic signature of Scabin toxin, a DNA-targeting ADP-ribosyltransferase. Biochemical Journal, 2018, 475, 225-245.	3.7	13
51	Toward Elucidating the Membrane Topology of Helix Two of the Colicin E1 Channel Domain. Journal of Biological Chemistry, 2006, 281, 32375-32384.	3.4	12
52	Membrane Topology of the Colicin E1 Channel Using Genetically Encoded Fluorescence. Biochemistry, 2011, 50, 4830-4842.	2.5	12
53	Harmonic Analysis of the Fluorescence Response of Bimane Adducts of Colicin E1 at Helices 6, 7, and 10. Journal of Biological Chemistry, 2013, 288, 5136-5148.	3.4	12
54	Identification of catalytically important amino acid residues for enzymatic reduction of glyoxylate in plants. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 2663-2671.	2.3	11

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55	Dynamics of Scabin toxin. A proposal for the binding mode of the DNA substrate. PLoS ONE, 2018, 13, e0194425.	2.5	10
56	In Situ Electrochemical and PM-IRRAS Studies of Colicin E1 Ion Channels in the Floating Bilayer Lipid Membrane. Langmuir, 2019, 35, 8452-8459.	3.5	10
57	Characterization of C3larvinA, a novel RhoA-targeting ADP-ribosyltransferase toxin produced by the honey bee pathogen, <i>Paenibacillus larvae</i>. Bioscience Reports, 2020, 40, .	2.4	10
58	A re-evaluation of the role of histidine-426 within Pseudomonas aeruginosa exotoxin A. Biochemical Journal, 2002, 367, 601-608.	3.7	8
59	Pocket analysis of the full-length cholix toxin. An assessment of the structureâ€“dynamics of theapocatalytic domain. Journal of Biomolecular Structure and Dynamics, 2015, 33, 2452-2468.	3.5	8
60	A comparative structure-function analysis of active-site inhibitors ofVibrio choleraecholix toxin. Journal of Molecular Recognition, 2015, 28, 539-552.	2.1	8
61	Structural variability of C3larvin toxin. Intrinsic dynamics of the Î±/Î² fold of the C3-like group of mono-ADP-ribosyltransferase toxins. Journal of Biomolecular Structure and Dynamics, 2016, 34, 1-24.	3.5	6
62	An In-Silico Sequence-Structure-Function Analysis of the N-Terminal Lobe in CT Group Bacterial ADP-Ribosyltransferase Toxins. Toxins, 2019, 11, 365.	3.4	6
63	Identification of peptide inhibitors ofPseudomonas aeruginosaexotoxin A function using a yeast two-hybrid approach. FEMS Microbiology Letters, 2003, 218, 85-92.	1.8	5
64	Evaluation of Dry and Wet Formulations of Oxalic Acid, Thymol, and Oregano Oil for Varroa Mite (Acari: Varroidae) Control in Honey Bee (Hymenoptera: Apidae) Colonies. Journal of Economic Entomology, 2020, 113, 2588-2594.	1.8	5
65	Anti-Virulence Strategy against the Honey Bee Pathogenic Bacterium Paenibacillus larvae via Small Molecule Inhibitors of the Bacterial Toxin Plx2A. Toxins, 2021, 13, 607.	3.4	5
66	Development of Anti-Virulence Therapeutics against Mono-ADP-Ribosyltransferase Toxins. Toxins, 2021, 13, 16.	3.4	5
67	Plant Natural Products as Antimicrobials for Control of Streptomyces scabies: A Causative Agent of the Common Scab Disease. Frontiers in Microbiology, 2021, 12, 833233.	3.5	5
68	A Microwave-Assisted Synthesis of (S)-N-Protected Homoserine Î³-Lactones froml-Aspartic Acid. Journal of Organic Chemistry, 2011, 76, 6825-6831.	3.2	4
69	Several New Putative Bacterial ADP-Ribosyltransferase Toxins Are Revealed from In Silico Data Mining, Including the Novel Toxin Vorin, Encoded by the Fire Blight Pathogen Erwinia amylovora. Toxins, 2020, 12, 792.	3.4	4
70	Mapping the DNA-Binding Motif of Scabin Toxin, a Guanine Modifying Enzyme from Streptomyces scabies. Toxins, 2021, 13, 55.	3.4	4
71	The N-terminus of Paenibacillus larvae C3larvinA modulates catalytic efficiency. Bioscience Reports, 2021, 41, .	2.4	4
72	Resolving the 3D spatial orientation of helix I in the closed state of the colicin E1 channel domain by FRET. Insights into the integration mechanism. Archives of Biochemistry and Biophysics, 2016, 608, 52-73.	3.0	2

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73	A Structural Approach to Anti-Virulence: A Discovery Pipeline. Microorganisms, 2021, 9, 2514.	3.6	2
74	A Pharmacophore Approach for Novel Inhibitors of Pseudomonas Aeruginosa Exotoxin A. Biophysical Journal, 2013, 104, 404a.	0.5	0