Alice Vrielink

List of Publications by Year
in descending order

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86	3,421	186265	144013
papers	citations	28 h-index	57 g-index

88	88	88	3730
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Molecular Features of the Copper Binding Sites in the Octarepeat Domain of the Prion Proteinâ€. Biochemistry, 2002, 41, 3991-4001.	2.5	407
2	Enzymatic toxins from snake venom: structural characterization and mechanism of catalysis. FEBS Journal, 2011, 278, 4544-4576.	4.7	233
3	The structure of L-amino acid oxidase reveals the substrate trajectory into an enantiomerically conserved active site. EMBO Journal, 2000, 19, 4204-4215.	7.8	224
4	Crystal structure of cholesterol oxidase from Brevibacterium sterolicum refined at 1.8 Ã... resolution. Journal of Molecular Biology, 1991, 219, 533-554.	4.2	190
5	Crystal structure of cholesterol oxidase complexed with a steroid substrate: Implications for flavin adenine dinucleotide dependent alcohol oxidases. Biochemistry, 1993, 32, 11507-11515.	2.5	180
6	Crystal Structure of LAAO from Calloselasma rhodostoma with an l-Phenylalanine Substrate: Insights into Structure and Mechanism. Journal of Molecular Biology, 2006, 364, 991-1002.	4.2	134
7	Sub-atomic Resolution Crystal Structure of Cholesterol Oxidase: What Atomic Resolution Crystallography Reveals about Enzyme Mechanism and the Role of the FAD Cofactor in Redox Activity. Journal of Molecular Biology, 2003, 326, 1635-1650.	4.2	118
8	Crystal Structure Determination of Cholesterol Oxidase fromStreptomycesand Structural Characterization of Key Active Site Mutantsâ€,â€¡. Biochemistry, 1999, 38, 4277-4286.	2.5	115
9	Structure of a lipid A phosphoethanolamine transferase suggests how conformational changes govern substrate binding. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 2218-2223.	7.1	113
10	Conserved and Novel Functions for Arabidopsis thaliana MIA40 in Assembly of Proteins in Mitochondria and Peroxisomes. Journal of Biological Chemistry, 2010, 285, 36138-36148.	3.4	108
11	The Structure of the Neisserial Lipooligosaccharide Phosphoethanolamine Transferase A (LptA) Required for Resistance to Polymyxin. Journal of Molecular Biology, 2013, 425, 3389-3402.	4.2	101
12	Oxygen Access to the Active Site of Cholesterol Oxidase through a Narrow Channel Is Gated by an Arg-Glu Pair. Journal of Biological Chemistry, 2001, 276, 30435-30441.	3.4	99
13	Crystal structure of a bifunctional aldolase-dehydrogenase: Sequestering a reactive and volatile intermediate. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6992-6997.	7.1	95
14	Cholesterol oxidase: biochemistry and structural features. FEBS Journal, 2009, 276, 6826-6843.	4.7	86
15	Crystal structure of the NADP+-dependent aldehyde dehydrogenase from Vibrio harveyi: structural implications for cofactor specificity and affinity. Biochemical Journal, 2000, 349, 853-861.	3.7	79
16	The Binding and Release of Oxygen and Hydrogen Peroxide Are Directed by a Hydrophobic Tunnel in Cholesterol Oxidase. Biochemistry, 2008, 47, 5368-5377.	2.5	74
17	Structure and characterization of the glycan moiety of L-amino-acid oxidase from the Malayan pit viperCalloselasma rhodostoma. FEBS Journal, 2001, 268, 4044-4053.	0.2	58
18	Cholesterol Oxidases:Â A Study of Nature's Approach to Protein Design. Accounts of Chemical Research, 2003, 36, 713-722.	15.6	58

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19	Change of Nucleotide Specificity and Enhancement of Catalytic Efficiency in Single Point Mutants ofVibrio harveyiAldehyde Dehydrogenaseâ€. Biochemistry, 1999, 38, 11440-11447.	2.5	50
20	The Presence of a Hydrogen Bond between Asparagine 485 and the Ï€ System of FAD Modulates the Redox Potential in the Reaction Catalyzed by Cholesterol Oxidase,. Biochemistry, 2001, 40, 13779-13787.	2.5	42
21	The crystal structure of the formiminotransferase domain of formiminotransferase-cyclodeaminase: implications for substrate channeling in a bifunctional enzyme. Structure, 2000, 8, 35-46.	3.3	40
22	Atomic resolution crystallography reveals how changes in pH shape the protein microenvironment. Nature Chemical Biology, 2006, 2, 259-264.	8.0	38
23	A novel type of regulation of the vimentin intermediate filament cytoskeleton by a Golgi protein. European Journal of Cell Biology, 2002, 81, 391-401.	3.6	37
24	Atomic Resolution Density Maps Reveal Secondary Structure Dependent Differences in Electronic Distribution. Journal of the American Chemical Society, 2003, 125, 12787-12794.	13.7	34
25	Lipid A Phosphoethanolamine Transferase: Regulation, Structure and Immune Response. Journal of Molecular Biology, 2020, 432, 5184-5196.	4.2	34
26	Detergents in Membrane Protein Purification and Crystallisation. Advances in Experimental Medicine and Biology, 2016, 922, 13-28.	1.6	33
27	Sub-Ã…ngstrom resolution enzyme X-ray structures: is seeing believing?. Current Opinion in Structural Biology, 2003, 13, 709-715.	5.7	32
28	Cholesterol Oxidase: Structure and Function. Sub-Cellular Biochemistry, 2010, 51, 137-158.	2.4	29
29	ESR and electron nuclear double resonance characterization of the cholesterol oxidase from Brevibacterium sterolicum in its semiquinone state. FEBS Journal, 1994, 222, 941-947.	0.2	28
30	Structure and function of lipid Aâ€“modifying enzymes. Annals of the New York Academy of Sciences, 2020, 1459, 19-37.	3.8	27
31	Distortion of flavin geometry is linked to ligand binding in cholesterol oxidase. Protein Science, 2007, 16, 2647-2656.	7.6	26
32	Structure of a class III engineered cephalosporin acylase: comparisons with class I acylase and implications for differences in substrate specificity and catalytic activity. Biochemical Journal, 2013, 451, 217-226.	3.7	26
33	Crystallization and Preliminary X-Ray Analysis of Cholesterol Oxidase fromBrevibacterium sterolicumContaining Covalently Bound FAD. Journal of Structural Biology, 1996, 116, 317-319.	2.8	25
34	Structural and kinetic analyses of the H121A mutant of cholesterol oxidase. Biochemical Journal, 2006, 400, 13-22.	3.7	24
35	The Role of Oxidoreductases in Determining the Function of the Neisserial Lipid A Phosphoethanolamine Transferase Required for Resistance to Polymyxin. PLoS ONE, 2014, 9, e106513.	2.5	24
36	Oxidation of cysteine 34 of plasma albumin as a biomarker of oxidative stress. Free Radical Research, 2020, 54, 91-103.	3.3	19

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37	Cholesterol oxidase: ultrahigh-resolution crystal structure and multipolar atom model-based analysis. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 954-968.	2.5	17
38	Exploring ligand recognition, selectivity and dynamics of TPR domains of chloroplast Toc64 and mitochondria Om64 fromArabidopsis thaliana. Journal of Molecular Recognition, 2014, 27, 402-414.	2.1	16
39	Computational insights for the hydride transfer and distinctive roles of key residues in cholesterol oxidase. Scientific Reports, 2017, 7, 17265.	3.3	16
40	Structure-Function Relationships of the Neisserial EptA Enzyme Responsible for Phosphoethanolamine Decoration of Lipid A: Rationale for Drug Targeting. Frontiers in Microbiology, 2018, 9, 1922.	3.5	16
41	Electron spin echo envelope modulation studies of the semiquinone anion radical of cholesterol oxidase from Brevibacterium sterolicum. FEBS Letters, 1997, 400, 247-251.	2.8	15
42	A missense mutation sheds light on a novel structureâ€“function relationship of RANKL. Journal of Cellular Physiology, 2021, 236, 2800-2816.	4.1	15
43	Identification of Amino Acid Residues in a Class I Ubiquitin-conjugating Enzyme Involved in Determining Specificity of Conjugation of Ubiquitin to Proteins. Journal of Biological Chemistry, 1998, 273, 18435-18442.	3.4	14
44	A hydrogen-bonding network is important for oxidation and isomerization in the reaction catalyzed by cholesterol oxidase. Acta Crystallographica Section D: Biological Crystallography, 2009, 65, 1222-1231.	2.5	14
45	An extended N-H bond, driven by a conserved second-order interaction, orients the flavin N5 orbital in cholesterol oxidase. Scientific Reports, 2017, 7, 40517.	3.3	14
46	Evidence for the incursion of intermediates in the hydrolysis of tertiary, secondary, and primary substrates. Journal of the American Chemical Society, 1980, 102, 2585-2592.	13.7	13
47	Biological Channeling of a Reactive Intermediate in the Bifunctional Enzyme DmpFG. Biophysical Journal, 2012, 102, 868-877.	0.5	13
48	Enzyme targets for drug design of new anti-virulence therapeutics. Current Opinion in Structural Biology, 2018, 53, 140-150.	5.7	13
49	Ligand Recognition by the TPR Domain of the Import Factor Toc64 from Arabidopsis thaliana. PLoS ONE, 2013, 8, e83461.	2.5	12
50	Looking for Hydrogen Atoms: Neutron Crystallography Provides Novel Insights Into Protein Structure and Function. Australian Journal of Chemistry, 2014, 67, 1751.	0.9	12
51	Involvement of Conserved Glycine Residues, 229 and 234, ofVibrio harveyiAldehyde Dehydrogenase in Activity and Nucleotide Binding. Biochemical and Biophysical Research Communications, 1997, 238, 448-451.	2.1	11
52	Purification and Characterization of the Human PDE4A Catalytic Domain (PDE4A330â€“723) Expressed in Sf9 Cells. Archives of Biochemistry and Biophysics, 2001, 394, 54-60.	3.0	11
53	The yeast transcription elongation factor Spt4/5 is a sequenceâ€specific RNA binding protein. Protein Science, 2016, 25, 1710-1721.	7.6	11
54	Direct demonstration of lipid phosphorylation in the lipid bilayer of the biomimetic bicontinuous cubic phase using the confined enzyme lipid A phosphoethanolamine transferase. Soft Matter, 2017, 13, 1493-1504.	2.7	11

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55	High-resolution structures of cholesterol oxidase in the reduced state provide insights into redox stabilization. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 3155-3166.	2.5	9
56	Production and characterization of recombinant perdeuterated cholesterol oxidase. Analytical Biochemistry, 2015, 485, 102-108.	2.4	9
57	Structures of an engineered phospholipase D with specificity for secondary alcohol transphosphatidylation: insights into plasticity of substrate binding and activation. Biochemical Journal, 2021, 478, 1749-1767.	3.7	9
58	Crystal structures of two factitious mutants of tyrosyl-tRNA synthetase. Biochemical Society Transactions, 1986, 14, 1228-1229.	3.4	7
59	Thermosensitive mutants of the MPTP and hPTP1B protein tyrosine phosphatases: Isolation and structural analysis. Protein Science, 1996, 5, 604-613.	7.6	7
60	Preliminary studies into the inhibition of the cholesterol Î±-glucosyltransferase from Helicobacter pylori using azasugars. Carbohydrate Research, 2010, 345, 960-964.	2.3	7
61	PPARÎ± and PPARÎ³ activation is associated with pleural mesothelioma invasion but therapeutic inhibition is ineffective. IScience, 2022, 25, 103571.	4.1	7
62	Crystal and moleclar structures of 5-allyl-25-methoxy-26,27,28-tribenzoylcalix[4]arene. Journal of Inclusion Phenomena, 1986, 4, 199-207.	0.6	6
63	A Histidine Residue in the Catalytic Mechanism Distinguishes Vibrio harveyi Aldehyde Dehydrogenase from Other Members of the Aldehyde Dehydrogenase Superfamily. Biochemistry, 2000, 39, 14409-14418.	2.5	6
64	Crystallization and preliminary X-ray analysis of dmpFG-encoded 4-hydroxy-2-ketovalerate aldolaseâ€“aldehyde dehydrogenase (acylating) fromPseudomonasÂsp. strain CF600. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 582-585.	2.5	6
65	Cloning, expression, purification and crystallization of an endotoxin-biosynthesis enzyme fromNeisseria meningitidis. Acta Crystallographica Section F: Structural Biology Communications, 2012, 68, 1494-1497.	0.7	6
66	Crystallization and preliminary X-ray analysis of the formiminotransferase domain from the bifunctional enzyme formiminotransferaseâ€“cyclodeaminase. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 1206-1208.	2.5	5
67	Binding and Channeling of Alternative Substrates in the Enzyme DmpFG: a Molecular Dynamics Study. Biophysical Journal, 2014, 106, 1681-1690.	0.5	5
68	Conformational flexibility of EptA driven by an interdomain helix provides insights for enzymeâ€“substrate recognition. IUCrJ, 2021, 8, 732-746.	2.2	5
69	Structural and Functional Studies of A NADP+-Specific Aldehyde Dehydrogenase from the Luminescent Marine Bacterium Vibrio harveyi. Advances in Experimental Medicine and Biology, 1996, 414, 269-275.	1.6	5
70	Crystallization of the chaperone protein SecB. Protein Science, 1995, 4, 1651-1653.	7.6	4
71	Crystallization and preliminary Xâ€ray analysis of aldehyde dehydrogenase from Vibrio harveyi. Protein Science, 1996, 5, 2130-2132.	7.6	4
72	Expression, Purification, and in Vitro Characterization of the Human Outer Mitochondrial Membrane Receptor Human Translocase of the Outer Mitochondrial Membrane 20. Archives of Biochemistry and Biophysics, 1999, 367, 95-103.	3.0	4

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73	Crystallization and preliminary diffraction analysis of an engineered cephalosporin acylase. Acta Crystallographica Section F: Structural Biology Communications, 2010, 66, 808-810.	0.7	4
74	Computational site-directed mutagenesis studies of the role of the hydrophobic triad on substrate binding in cholesterol oxidase. Proteins: Structure, Function and Bioinformatics, 2017, 85, 1645-1655.	2.6	4
75	Novel small molecules that increase the susceptibility of Neisseria gonorrhoeae to cationic antimicrobial peptides by inhibiting lipid A phosphoethanolamine transferase. Journal of Antimicrobial Chemotherapy, 2022, 77, 2441-2447.	3.0	4
76	Differences in nucleotide specificity and catalytic mechanism between Vibrio harveyi aldehyde dehydrogenase and other members of the aldehyde dehydrogenase superfamily. Chemico-Biological Interactions, 2001, 130-132, 29-38.	4.0	3
77	Development of a novel spatiotemporal depletion system for cellular cholesterol. Journal of Lipid Research, 2022, , 100178.	4.2	3
78	Mechanism of the dehydrogenase reaction of DmpFG and analysis of inter-subunit channeling efficiency and thermodynamic parameters in the overall reaction. International Journal of Biochemistry and Cell Biology, 2013, 45, 1878-1885.	2.8	2
79	Ubiquitin fusion constructs allow the expression and purification of multi-KOW domain complexes of the Saccharomyces cerevisiae transcription elongation factor Spt4/5. Protein Expression and Purification, 2014, 100, 54-60.	1.3	2
80	The Design and Structure of Outer Membrane Receptors from Peroxisomes, Mitochondria, and Chloroplasts. Structure, 2015, 23, 1783-1800.	3.3	2
81	The role of hydrogen atoms in redox catalysis by the flavoenzyme cholesterol oxidase. Methods in Enzymology, 2020, 634, 361-377.	1.0	2
82	Chapter 5 Protein-nucleic acid recognition and interactions. Principles of Medical Biology, 1996, 5, 85-115.	0.1	0
83	Cholesterol Oxidases: A Study of Natureâ€²s Approach to Protein Design. ChemInform, 2003, 34, no.	0.0	0
84	Immunomodulatory Effects Of Rye Grass Pollen Allergen LolÂpÂ5 On The Prostaglandin E2 Pathway and Kallikrein-Kinin System Of Respiratory Epithelial Cells. Journal of Allergy and Clinical Immunology, 2014, 133, AB101.	2.9	0
85	Editorial overview: Catalysis and regulation: Structural features guiding enzyme catalysed processes. Current Opinion in Structural Biology, 2018, 53, iii-v.	5.7	0
86	Structural studies of inhibitors of angiotensin converting enzyme. Acta Crystallographica Section A: Foundations and Advances, 1984, 40, C61-C61.	0.3	0