Jennifer A Littlechild

List of Publications by Year
in descending order

106	3,521	117571	161767
papers	citations	34 h-index	54 g-index

114	114	114	3754
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Crystal structure of dodecameric vanadium-dependent bromoperoxidase from the red algae Corallina officinalis 1 1Edited by R. Huber. Journal of Molecular Biology, 2000, 299, 1035-1049.	2.0	185
2	Tps1 regulates the pentose phosphate pathway, nitrogen metabolism and fungal virulence. EMBO Journal, 2007, 26, 3673-3685.	3.5	165
3	An NADPH-dependent genetic switch regulates plant infection by the rice blast fungus. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 21902-21907.	3.3	130
4	Haloperoxidases and their role in biotransformation reactions. Current Opinion in Chemical Biology, 1999, 3, 28-34.	2.8	119
5	Enzymes from Extreme Environments and Their Industrial Applications. Frontiers in Bioengineering and Biotechnology, 2015, 3, 161.	2.0	114
6	Characterization of Carboxylic Acid Reductases as Enzymes in the Toolbox for Synthetic Chemistry. ChemCatChem, 2017, 9, 1005-1017.	1.8	106
7	Development of the biocatalytic resolution of 2-azabicyclo[2.2.1]hept-5-en-3-one as an entry to single-enantiomer carbocyclic nucleosides. Tetrahedron: Asymmetry, 1993, 4, 1117-1128.	1.8	100
8	Crystal structure of human muscle aldolase complexed with fructose 1,6â€bisphosphate: Mechanistic implications. Protein Science, 1999, 8, 291-297.	3.1	93
9	Determination of Protein-ligand Interactions Using Differential Scanning Fluorimetry. Journal of Visualized Experiments, 2014, , 51809.	0.2	81
10	Crystal structure of a thermostable Old Yellow Enzyme from Thermus scotoductus SA-01. Biochemical and Biophysical Research Communications, 2010, 393, 426-431.	1.0	76
11	The structure of a thermally stable 3-phosphoglycerate kinase and a comparison with its mesophilic equivalent. Proteins: Structure, Function and Bioinformatics, 1993, 15, 283-289.	1.5	73
12	The atomic-resolution structure of a novel bacterial esterase. Structure, 2000, 8, 143-151.	1.6	72
13	Structural studies on the dodecameric vanadium bromoperoxidase from Corallina species. Coordination Chemistry Reviews, 2003, 237, 65-76.	9.5	69
14	The Structure of an Alcohol Dehydrogenase from the Hyperthermophilic Archaeon Aeropyrum pernix. Journal of Molecular Biology, 2003, 331, 1041-1051.	2.0	67
15	Crystal structure of the glyceraldehyde-3-phosphate dehydrogenase from the hyperthermophilic archaeon Sulfolobus solfataricus 1 1Edited by R. Huber. Journal of Molecular Biology, 1999, 291, 651-660.	2.0	62
16	The Crystal Structure of a (â˜') Î³-Lactamase from an Aureobacterium Species Reveals a Tetrahedral Intermediate in the Active Site. Journal of Molecular Biology, 2004, 338, 519-532.	2.0	62
17	Discovery and Characterization of a Thermostable and Highly Halotolerant GH5 Cellulase from an Icelandic Hot Spring Isolate. PLoS ONE, 2016, 11, e0146454.	1.1	61
18	The substrate specificity, enantioselectivity and structure of the (<scp>R</scp>)â€selective amineÂ:Âpyruvate transaminase from <scp>N</scp>ectriaÂhaematococca. FEBS Journal, 2014, 281, 2240-2253.	2.2	60

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19	Structural and functional comparisons between vanadium haloperoxidase and acid phosphatase enzymes. Journal of Molecular Recognition, 2002, 15, 291-296.	1.1	55
20	Biocatalysis as Key to Sustainable Industrial Chemistry. ChemSusChem, 2022, 15, e202102709.	3.6	52
21	The use of a thermostable signature amidase in the resolution of the bicyclic synthon (rac)-Î³-lactam. Tetrahedron, 2004, 60, 711-716.	1.0	51
22	Structural studies ofPseudomonasandChromobacteriumÏ‰-aminotransferases provide insights into their differing substrate specificity. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 564-576.	2.5	51
23	Archaeal Enzymes and Applications in Industrial Biocatalysts. Archaea, 2015, 2015, 1-10.	2.3	50
24	Diversity of bacteria and archaea from two shallow marine hydrothermal vents from Vulcano Island. Extremophiles, 2017, 21, 733-742.	0.9	48
25	NMR analysis of the interdomain region of yeast phosphoglycerate kinase. FEBS Journal, 1988, 170, 529-538.	0.2	47
26	Natural methods of protein stabilization: thermostable biocatalysts. Biochemical Society Transactions, 2007, 35, 1558-1563.	1.6	47
27	The structure of a tetrameric Î±-carbonic anhydrase fromThermovibrio ammonificansreveals a core formed around intermolecular disulfides that contribute to its thermostability. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 2607-2618.	2.5	47
28	Discovery and characterization of thermophilic limoneneâ€1,2â€epoxide hydrolases from hot spring metagenomic libraries. FEBS Journal, 2015, 282, 2879-2894.	2.2	43
29	NMR analysis of site-specific mutants of yeast phosphoglycerate kinase. An investigation of the triose-binding site. FEBS Journal, 1989, 183, 57-67.	0.2	40
30	Engineering a Seven Enzyme Biotransformation using Mathematical Modelling and Characterized Enzyme Parts. ChemCatChem, 2019, 11, 3474-3489.	1.8	39
31	A thermostable L -aminoacylase from Thermococcus litoralis : cloning, overexpression, characterization, and applications in biotransformations. Extremophiles, 2002, 6, 111-122.	0.9	38
32	Discovering novel hydrolases from hot environments. Biotechnology Advances, 2018, 36, 2077-2100.	6.0	38
33	Modification of halogen specificity of a vanadium-dependent bromoperoxidase. Protein Science, 2004, 13, 1566-1571.	3.1	37
34	Vanadium containing bromoperoxidase â€“ Insights into the enzymatic mechanism using X-ray crystallography. Journal of Inorganic Biochemistry, 2009, 103, 617-621.	1.5	37
35	A microreactor for the study of biotransformations by a crossâ€linked Î³â€lactamase enzyme. Biotechnology Journal, 2009, 4, 510-516.	1.8	37
36	Marine <scp>R</scp>hodobacteraceae <scp>l</scp>â€haloacid dehalogenase contains a novel <scp>H</scp>is/<scp>G</scp>lu dyad that could activate the catalytic water. FEBS Journal, 2013, 280, 1664-1680.	2.2	36

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37	Biochemical and structural studies of a l-haloacid dehalogenase from the thermophilic archaeon Sulfolobus tokodaii. Extremophiles, 2009, 13, 179-190.	0.9	34
38	Purification, crystallisation and preliminary X-ray analysis of the vanadium-dependent haloperoxidase fromCorallina officinalis. FEBS Letters, 1995, 359, 244-246.	1.3	33
39	Site-directed mutagenesis of proline 204 in the â€˜hingeâ€™ region of yeast phosphoglycerate kinase. FEBS Journal, 2001, 259, 939-946.	0.2	33
40	Using enzyme cascades in biocatalysis: Highlight on transaminases and carboxylic acid reductases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2020, 1868, 140322.	1.1	31
41	Biosensors and Diagnostics for Fungal Detection. Journal of Fungi (Basel, Switzerland), 2020, 6, 349.	1.5	31
42	Lymphocytes from rheumatoid arthritis patients have elevated levels of intracellular peroxiredoxin 2, and a greater frequency of cells with exofacial peroxiredoxin 2, compared with healthy human lymphocytes. International Journal of Biochemistry and Cell Biology, 2012, 44, 1223-1231.	1.2	30
43	Crystal structure and substrate specificity of the thermophilic serine:pyruvate aminotransferase fromSulfolobus solfataricus. Acta Crystallographica Section D: Biological Crystallography, 2012, 68, 763-772.	2.5	30
44	Improving the â€˜tool boxâ€™ for robust industrial enzymes. Journal of Industrial Microbiology and Biotechnology, 2017, 44, 711-720.	1.4	30
45	The Phosphoglycerate Kinase and glsyceraldehyde-3-phosphate Dehydrogenase Genes from the Thermophilic Archaeon Sulfolobus Solfataricus Overlap by 8-bp. Isolation, Sequencing of the Genes and Expression in Escherichia coli. FEBS Journal, 1995, 233, 800-808.	0.2	29
46	Hyperthermophilic dehydrogenase enzymes. Biochemical Society Transactions, 2004, 32, 255-258.	1.6	28
47	An orderâ€“disorder twin crystal ofL-2-haloacid dehalogenase fromSulfolobus tokodaii. Acta Crystallographica Section D: Biological Crystallography, 2007, 63, 926-930.	2.5	28
48	Immobilisation of the Thermostable l -aminoacylase from Thermococcus litoralis to Generate a Reusable Industrial Biocatalyst. Biocatalysis and Biotransformation, 2002, 20, 241-249.	1.1	27
49	Biochemical and structural characterisation of a haloalkane dehalogenase from a marine Rhodobacteraceae. FEBS Letters, 2014, 588, 1616-1622.	1.3	27
50	Structural studies of a thermophilic esterase from a new Planctomycetes species, ThermoguttaÂterrifontis. FEBS Journal, 2015, 282, 2846-2857.	2.2	27
51	Distance Measurement by Energy Transfer: The 3' End of 16-S RNA and Proteins S4 and S17 of the Ribosome of Escherichia coli. FEBS Journal, 1982, 129, 211-219.	0.2	26
52	Thermophilic archaeal enzymes and applications in biocatalysis. Biochemical Society Transactions, 2011, 39, 155-158.	1.6	26
53	Thermostable Branched-Chain Amino Acid Transaminases From the Archaea Geoglobus acetivorans and Archaeoglobus fulgidus: Biochemical and Structural Characterization. Frontiers in Bioengineering and Biotechnology, 2019, 7, 7.	2.0	26
54	Characterisation of an l-Haloacid Dehalogenase from the Marine Psychrophile Psychromonas ingrahamii with Potential Industrial Application. Marine Biotechnology, 2013, 15, 695-705.	1.1	25

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55	Characterization of a phosphotriesterase-like lactonase from the hyperthermoacidophilic crenarchaeon Vulcanisaeta moutnovskia. Journal of Biotechnology, 2014, 190, 11-17.	1.9	25
56	Site-directed mutagenesis of yeast phosphoglycerate kinase. The 'basic-patch' residue arginine 168. FEBS Journal, 1989, 183, 49-55.	0.2	24
57	Structural basis for the Target <scp>DNA</scp> recognition and binding by the <scp>MYB</scp> domain of phosphate starvation response 1. FEBS Journal, 2019, 286, 2809-2821.	2.2	23
58	Crystallization and preliminary X-ray analysis of a Î³-lactamase. Acta Crystallographica Section D: Biological Crystallography, 2001, 57, 284-286.	2.5	20
59	Enhancing effect of calcium and vanadium ions on thermal stability of bromoperoxidase from Corallina pilulifera. Journal of Biological Inorganic Chemistry, 2005, 10, 275-282.	1.1	20
60	The binding of haem and zinc in the 1.9ÂÃ... X-ray structure of Escherichia coli bacterioferritin. Journal of Biological Inorganic Chemistry, 2009, 14, 201-207.	1.1	20
61	The Structure of a Novel Thermophilic Esterase from the Planctomycetes Species, Thermogutta terrifontis Reveals an Open Active Site Due to a Minimal â€˜Capâ€™ Domain. Frontiers in Microbiology, 2015, 6, 1294.	1.5	20
62	A high-sensitivity electrochemiluminescence-based ELISA for the measurement of the oxidative stress biomarker, 3-nitrotyrosine, in human blood serum and cells. Free Radical Biology and Medicine, 2018, 120, 246-254.	1.3	20
63	The oxygenating constituent of 3,6-diketocamphane monooxygenase from the CAM plasmid ofPseudomonas putida: the first crystal structure of a type II Baeyerâ€“Villiger monooxygenase. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 2344-2353.	2.5	20
64	A proton-NMR study of a site-directed mutation (His388 Glu) in the interdomain region of yeast phosphoglycerate kinase. Implications for domain movement. FEBS Journal, 1991, 196, 261-269.	0.2	19
65	New Thermophilic Î±/Î² Class Epoxide Hydrolases Found in Metagenomes From Hot Environments. Frontiers in Bioengineering and Biotechnology, 2018, 6, 144.	2.0	19
66	Site-directed mutagenesis of histidine 62 in the â€˜basic patchâ€™ region of yeast phosphoglycerate kinase. FEBS Letters, 1989, 258, 247-250.	1.3	14
67	Preliminary X-ray analysis of a new crystal form of the vanadium-dependent bromoperoxidase from Corallina officinalis. Acta Crystallographica Section D: Biological Crystallography, 1998, 54, 454-457.	2.5	14
68	Structural insights into the NAD+-dependent formate dehydrogenase mechanism revealed from the NADH complex and the formate NAD+ ternary complex of the Chaetomium thermophilum enzyme. Journal of Structural Biology, 2020, 212, 107657.	1.3	14
69	Structural and Functional Studies on Protein S20 from the 30â€S Subunit of the Escherichia coli Ribosome. FEBS Journal, 1983, 129, 543-548.	0.2	12
70	Structural Insights into a Novel Esterase from the East Pacific Rise and Its Improved Thermostability by a Semirational Design. Journal of Agricultural and Food Chemistry, 2021, 69, 1079-1090.	2.4	12
71	Molecular modelling studies of substrate binding to the lipase from Rhizomucor miehei. Journal of Computer-Aided Molecular Design, 1997, 11, 256-264.	1.3	11
72	Synthesis and characterisation of a ligand that forms a stable tetrahedral intermediate in the active site of the Aureobacterium species (â€“)Î³-lactamase. Organic and Biomolecular Chemistry, 2005, 3, 3260.	1.5	11

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73	Crystallization and preliminary X-ray diffraction analysis of ï‰-amino acid:pyruvate transaminase fromChromobacterium violaceum. Acta Crystallographica Section F: Structural Biology Communications, 2007, 63, 117-119.	0.7	11
74	Mechanisms of Thermal Stability Adopted by Thermophilic Proteins and Their Use in White Biotechnology. , 2013, , 481-507.		11
75	Crystallization and preliminary X-ray diffraction studies of a novel alcohol dehydrogenase from the hyperthermophilic archaeonAeropyrum pernix. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 174-176.	2.5	10
76	Anion Binding Tripodal Receptors as Structural Models for the Active Site of Vanadium Haloperoxidases and Acid Phosphatases. Supramolecular Chemistry, 2006, 18, 55-58.	1.5	10
77	Thermophilic enzymes and their applications in biocatalysis: a robust aldoâ€keto reductase. Environmental Technology (United Kingdom), 2010, 31, 1159-1167.	1.2	10
78	Crystallization and preliminary X-ray diffraction studies of a fungal hydrolase fromOphiostoma novo-ulmi. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 1879-1882.	2.5	9
79	The Fasciola hepatica thioredoxin: High resolution structure reveals two oxidation states. Molecular and Biochemical Parasitology, 2008, 161, 44-48.	0.5	9
80	An investigation of large inhibitors binding to phosphoglycerate kinase and their effect on anion activation. FEBS Journal, 1992, 205, 1077-1088.	0.2	8
81	The purification and crystallisation of 2,5-diketocamphane 1,2 monooxygenase and 3,6-diketocamphane 1,6 monooxygenase from Pseudomonas putida NCIMB 10007. Biochemical Society Transactions, 1996, 24, 29S-29S.	1.6	8
82	Crystallization and preliminary X-ray diffraction analysis ofL-aminoacylase from the hyperthermophilic archaeonThermococcus litoralis. Acta Crystallographica Section D: Biological Crystallography, 2002, 58, 507-510.	2.5	8
83	Structural and biochemical characterisation of Archaeoglobus fulgidus esterase reveals a bound CoA molecule in the vicinity of the active site. Scientific Reports, 2016, 6, 25542.	1.6	8
84	Stabilization of a Lipolytic Enzyme for Commercial Application. Catalysts, 2017, 7, 91.	1.6	8
85	The crystal structure of Arabidopsis BON1 provides insights into the copine protein family. Plant Journal, 2020, 103, 1215-1232.	2.8	8
86	Crystallization and preliminary X-ray diffraction studies of pyrrolidone carboxyl peptidase from the hyperthermophilic archaeonThermococcus litoralis. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 702-703.	2.5	7
87	Functional and structural characterisation of a viral cytochrome b5. FEBS Letters, 2013, 587, 3633-3639.	1.3	7
88	Structural characterization of geranylgeranyl pyrophosphate synthase GACE1337 from the hyperthermophilic archaeon Geoglobus acetivorans. Extremophiles, 2018, 22, 877-888.	0.9	7
89	Site-directed mutagenesis of yeast phosphoglycerate kinase. FEBS Letters, 1993, 320, 193-197.	1.3	6
90	Complementation of a pgk deletion mutation in Saccharomyces cerevisiae with expression of the phosphoglycerate-kinase gene from the hyperthermophilic Archaeon Sulfolobus solfataricus. Current Genetics, 1996, 29, 594-596.	0.8	5

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91	Structural Studies of Vanadium Haloperoxidases: Insight into Halide Specificity, Stability, and Enzyme Mechanism. ACS Symposium Series, 2007, , 136-147.	0.5	4
92	Amino acid properties may be useful in predicting clinical outcome in patients with Kir6.2 neonatal diabetes. European Journal of Endocrinology, 2012, 167, 417-421.	1.9	4
93	Anion binding study of yeast phosphoglycerate kinase by nuclear magnetic resonance and site-specific mutagenesis. Biochemical Society Transactions, 1987, 15, 868-869.	1.6	3
94	Complementation of apgk deletion mutation inSaccharomyces cerevisiae with expression of the phosphoglycerate-kinase gene from the hyperthermophilic ArchaeonSulfolobus solfataricus. Current Genetics, 1996, 29, 594-596.	0.8	3
95	Marine enzymes with applications for biosynthesis of fine chemicals. , 2013, , 89-106.		3
96	A â€˜Split-Geneâ€™ Transketolase From the Hyper-Thermophilic Bacterium Carboxydothermus hydrogenoformans: Structure and Biochemical Characterization. Frontiers in Microbiology, 2020, 11, 592353.	1.5	3
97	Biochemical and Structural Characterisation of a Novel D-Lyxose Isomerase From the Hyperthermophilic Archaeon Thermofilum sp.. Frontiers in Bioengineering and Biotechnology, 2021, 9, 711487.	2.0	3
98	X-ray structure of Fasciola hepatica Sigma class glutathione transferase 1 reveals a disulfide bond to support stability in gastro-intestinal environment. Scientific Reports, 2019, 9, 902.	1.6	2
99	Biocatalysis as Key to Sustainable Industrial Chemistry. ChemSusChem, 2022, , e202200709.	3.6	2
100	Preface to Special Issue on Biocatalysis as Key to Sustainable Industrial Chemistry. ChemSusChem, 2022, 15, e202200640.	3.6	2
101	Probing the 3-phosphoglycerate-binding site of yeast phosphoglycerate kinase using site-specific mutants and 1H nuclear magnetic resonance spectroscopy. Biochemical Society Transactions, 1988, 16, 724-725.	1.6	1
102	ROUNDTABLE DISCUSSION: Contributions of marine bioscience to industrial biotechnology. Industrial Biotechnology, 2007, 3, 304-313.	0.5	1
103	The type II restriction enzymes HgiAI and TaqI: purification and properties. Biochemical Society Transactions, 1986, 14, 268-269.	1.6	0
104	Peroxiredoxin 2 in Human Inflammatory Joint Disease. Free Radical Biology and Medicine, 2010, 49, S151.	1.3	0
105	Studies with Type I Aldolase to Understand Fructose Intolerance and Combat Parasitic Disease. Journal of Pharmacy and Pharmacology, 2011, 48, 214-217.	1.2	0
106	Comments to Article by Willetts A. et al., Microorganisms 2016, 4, 38. Microorganisms, 2017, 5, 54.	1.6	0