

Jennifer A Littlechild

List of Publications by Year in descending order

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106
papers

3,521
citations

117571

34
h-index

161767

54
g-index

114
all docs

114
docs citations

114
times ranked

3754
citing authors

#	ARTICLE	IF	CITATIONS
1	Biocatalysis as Key to Sustainable Industrial Chemistry. ChemSusChem, 2022, 15, e202102709.	3.6	52
2	Biocatalysis as Key to Sustainable Industrial Chemistry. ChemSusChem, 2022, , e202200709.	3.6	2
3	Preface to Special Issue on Biocatalysis as Key to Sustainable Industrial Chemistry. ChemSusChem, 2022, 15, e202200640.	3.6	2
4	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
5	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
6	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
7	A "Split-Gene"™ Transketolase From the Hyper-Thermophilic Bacterium Carboxydothermus hydrogenoformans: Structure and Biochemical Characterization. Frontiers in Microbiology, 2020, 11, 592353.	1.5	3
8	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
9	Biosensors and Diagnostics for Fungal Detection. Journal of Fungi (Basel, Switzerland), 2020, 6, 349.	1.5	31
10	The crystal structure of Arabidopsis BON1 provides insights into the copine protein family. Plant Journal, 2020, 103, 1215-1232.	2.8	8
11	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
12	Engineering a Seven Enzyme Biotransformation using Mathematical Modelling and Characterized Enzyme Parts. ChemCatChem, 2019, 11, 3474-3489.	1.8	39
13	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
14	Structural basis for the Target <sc>DNA</sc> recognition and binding by the <sc>MYB</sc> domain of phosphate starvation response 1. FEBS Journal, 2019, 286, 2809-2821.	2.2	23
15	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
16	Structural characterization of geranylgeranyl pyrophosphate synthase GACE1337 from the hyperthermophilic archaeon Geoglobus acetivorans. Extremophiles, 2018, 22, 877-888.	0.9	7
17	Discovering novel hydrolases from hot environments. Biotechnology Advances, 2018, 36, 2077-2100.	6.0	38
18	New Thermophilic $\hat{1}\hat{2}$ Class Epoxide Hydrolases Found in Metagenomes From Hot Environments. Frontiers in Bioengineering and Biotechnology, 2018, 6, 144.	2.0	19

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19	Diversity of bacteria and archaea from two shallow marine hydrothermal vents from Vulcano Island. <i>Extremophiles</i> , 2017, 21, 733-742.	0.9	48
20	Improving the "tool box"™ for robust industrial enzymes. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2017, 44, 711-720.	1.4	30
21	Characterization of Carboxylic Acid Reductases as Enzymes in the Toolbox for Synthetic Chemistry. <i>ChemCatChem</i> , 2017, 9, 1005-1017.	1.8	106
22	Comments to Article by Willetts A. et al., <i>Microorganisms</i> 2016, 4, 38. <i>Microorganisms</i> , 2017, 5, 54.	1.6	0
23	Stabilization of a Lipolytic Enzyme for Commercial Application. <i>Catalysts</i> , 2017, 7, 91.	1.6	8
24	Discovery and Characterization of a Thermostable and Highly Halotolerant GH5 Cellulase from an Icelandic Hot Spring Isolate. <i>PLoS ONE</i> , 2016, 11, e0146454.	1.1	61
25	Structural and biochemical characterisation of <i>Archaeoglobus fulgidus</i> esterase reveals a bound CoA molecule in the vicinity of the active site. <i>Scientific Reports</i> , 2016, 6, 25542.	1.6	8
26	Discovery and characterization of thermophilic limonene-1,2-epoxide hydrolases from hot spring metagenomic libraries. <i>FEBS Journal</i> , 2015, 282, 2879-2894.	2.2	43
27	Structural studies of a thermophilic esterase from a new Planctomycetes species, <i>Thermogutta terrifontis</i> . <i>FEBS Journal</i> , 2015, 282, 2846-2857.	2.2	27
28	Enzymes from Extreme Environments and Their Industrial Applications. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015, 3, 161.	2.0	114
29	The Structure of a Novel Thermophilic Esterase from the Planctomycetes Species, <i>Thermogutta terrifontis</i> Reveals an Open Active Site Due to a Minimal "Cap"™ Domain. <i>Frontiers in Microbiology</i> , 2015, 6, 1294.	1.5	20
30	Archaeal Enzymes and Applications in Industrial Biocatalysts. <i>Archaea</i> , 2015, 2015, 1-10.	2.3	50
31	The oxygenating constituent of 3,6-diketocamphane monooxygenase from the CAM plasmid of <i>Pseudomonas putida</i> : the first crystal structure of a type II Baeyer-Villiger monooxygenase. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2015, 71, 2344-2353.	2.5	20
32	The structure of a tetrameric $\hat{\pm}$ -carbonic anhydrase from <i>Thermovibrio ammonificans</i> reveals a core formed around intermolecular disulfides that contribute to its thermostability. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2014, 70, 2607-2618.	2.5	47
33	The substrate specificity, enantioselectivity and structure of the ϵ -selective amine:pyruvate transaminase from <i>Nectria haematococca</i> . <i>FEBS Journal</i> , 2014, 281, 2240-2253.	2.2	60
34	Biochemical and structural characterisation of a haloalkane dehalogenase from a marine <i>Rhodobacteraceae</i> . <i>FEBS Letters</i> , 2014, 588, 1616-1622.	1.3	27
35	Characterization of a phosphotriesterase-like lactonase from the hyperthermoacidophilic crenarchaeon <i>Vulcanisaeta moutnovskia</i> . <i>Journal of Biotechnology</i> , 2014, 190, 11-17.	1.9	25
36	Determination of Protein-ligand Interactions Using Differential Scanning Fluorimetry. <i>Journal of Visualized Experiments</i> , 2014, , 51809.	0.2	81

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37	Functional and structural characterisation of a viral cytochrome <i>b5</i> . FEBS Letters, 2013, 587, 3633-3639.	1.3	7
38	Characterisation of an l-Haloacid Dehalogenase from the Marine Psychrophile <i>Psychromonas ingrahamii</i> with Potential Industrial Application. Marine Biotechnology, 2013, 15, 695-705.	1.1	25
39	Mechanisms of Thermal Stability Adopted by Thermophilic Proteins and Their Use in White Biotechnology. , 2013, , 481-507.		11
40	Marine enzymes with applications for biosynthesis of fine chemicals. , 2013, , 89-106.		3
41	Structural studies of <i>Pseudomonas</i> and <i>Chromobacterium</i> γ -aminotransferases provide insights into their differing substrate specificity. Acta Crystallographica Section D: Biological Crystallography, 2013, 69, 564-576.	2.5	51
42	Marine <i>Rhodobacteraceae</i> α -haloacid dehalogenase contains a novel His/Glu dyad that could activate the catalytic water. FEBS Journal, 2013, 280, 1664-1680.	2.2	36
43	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
44	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
45	Crystal structure and substrate specificity of the thermophilic serine:pyruvate aminotransferase from <i>Sulfolobus solfataricus</i> . Acta Crystallographica Section D: Biological Crystallography, 2012, 68, 763-772.	2.5	30
46	Thermophilic archaeal enzymes and applications in biocatalysis. Biochemical Society Transactions, 2011, 39, 155-158.	1.6	26
47	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
48	Peroxiredoxin 2 in Human Inflammatory Joint Disease. Free Radical Biology and Medicine, 2010, 49, S151.	1.3	0
49	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
50	Thermophilic enzymes and their applications in biocatalysis: a robust aldo-keto reductase. Environmental Technology (United Kingdom), 2010, 31, 1159-1167.	1.2	10
51	Crystal structure of a thermostable Old Yellow Enzyme from <i>Thermus scotoductus</i> SA-01. Biochemical and Biophysical Research Communications, 2010, 393, 426-431.	1.0	76
52	The binding of haem and zinc in the 1.9 Å X-ray structure of <i>Escherichia coli</i> bacterioferritin. Journal of Biological Inorganic Chemistry, 2009, 14, 201-207.	1.1	20
53	Biochemical and structural studies of a l-haloacid dehalogenase from the thermophilic archaeon <i>Sulfolobus tokodaii</i> . Extremophiles, 2009, 13, 179-190.	0.9	34
54	Vanadium containing bromoperoxidase – Insights into the enzymatic mechanism using X-ray crystallography. Journal of Inorganic Biochemistry, 2009, 103, 617-621.	1.5	37

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55	A microreactor for the study of biotransformations by a cross-linked β -lactamase enzyme. <i>Biotechnology Journal</i> , 2009, 4, 510-516.	1.8	37
56	The <i>Fasciola hepatica</i> thioredoxin: High resolution structure reveals two oxidation states. <i>Molecular and Biochemical Parasitology</i> , 2008, 161, 44-48.	0.5	9
57	ROUNDTABLE DISCUSSION: Contributions of marine bioscience to industrial biotechnology. <i>Industrial Biotechnology</i> , 2007, 3, 304-313.	0.5	1
58	Natural methods of protein stabilization: thermostable biocatalysts. <i>Biochemical Society Transactions</i> , 2007, 35, 1558-1563.	1.6	47
59	Structural Studies of Vanadium Haloperoxidases: Insight into Halide Specificity, Stability, and Enzyme Mechanism. <i>ACS Symposium Series</i> , 2007, , 136-147.	0.5	4
60	An order-disorder twin crystal of L-2-haloacid dehalogenase from <i>Sulfolobus tokodaii</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2007, 63, 926-930.	2.5	28
61	Crystallization and preliminary X-ray diffraction analysis of γ -amino acid:pyruvate transaminase from <i>Chromobacterium violaceum</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2007, 63, 117-119.	0.7	11
62	Tps1 regulates the pentose phosphate pathway, nitrogen metabolism and fungal virulence. <i>EMBO Journal</i> , 2007, 26, 3673-3685.	3.5	165
63	Anion Binding Tripodal Receptors as Structural Models for the Active Site of Vanadium Haloperoxidases and Acid Phosphatases. <i>Supramolecular Chemistry</i> , 2006, 18, 55-58.	1.5	10
64	Enhancing effect of calcium and vanadium ions on thermal stability of bromoperoxidase from <i>Corallina pilulifera</i> . <i>Journal of Biological Inorganic Chemistry</i> , 2005, 10, 275-282.	1.1	20
65	Synthesis and characterisation of a ligand that forms a stable tetrahedral intermediate in the active site of the <i>Aureobacterium</i> species (β -lactamase. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 3260.	1.5	11
66	Modification of halogen specificity of a vanadium-dependent bromoperoxidase. <i>Protein Science</i> , 2004, 13, 1566-1571.	3.1	37
67	Crystallization and preliminary X-ray diffraction studies of a fungal hydrolase from <i>Ophiostoma novo-ulmi</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2004, 60, 1879-1882.	2.5	9
68	The use of a thermostable signature amidase in the resolution of the bicyclic synthon (rac)- β -lactam. <i>Tetrahedron</i> , 2004, 60, 711-716.	1.0	51
69	The Crystal Structure of a β -Lactamase from an <i>Aureobacterium</i> Species Reveals a Tetrahedral Intermediate in the Active Site. <i>Journal of Molecular Biology</i> , 2004, 338, 519-532.	2.0	62
70	Hyperthermophilic dehydrogenase enzymes. <i>Biochemical Society Transactions</i> , 2004, 32, 255-258.	1.6	28
71	Crystallization and preliminary X-ray diffraction studies of a novel alcohol dehydrogenase from the hyperthermophilic archaeon <i>Aeropyrum pernix</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2003, 59, 174-176.	2.5	10
72	Structural studies on the dodecameric vanadium bromoperoxidase from <i>Corallina</i> species. <i>Coordination Chemistry Reviews</i> , 2003, 237, 65-76.	9.5	69

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73	The Structure of an Alcohol Dehydrogenase from the Hyperthermophilic Archaeon <i>Aeropyrum pernix</i> . <i>Journal of Molecular Biology</i> , 2003, 331, 1041-1051.	2.0	67
74	Immobilisation of the Thermostable L -aminoacylase from <i>Thermococcus litoralis</i> to Generate a Reusable Industrial Biocatalyst. <i>Biocatalysis and Biotransformation</i> , 2002, 20, 241-249.	1.1	27
75	Structural and functional comparisons between vanadium haloperoxidase and acid phosphatase enzymes. <i>Journal of Molecular Recognition</i> , 2002, 15, 291-296.	1.1	55
76	A thermostable L -aminoacylase from <i>Thermococcus litoralis</i> : cloning, overexpression, characterization, and applications in biotransformations. <i>Extremophiles</i> , 2002, 6, 111-122.	0.9	38
77	Crystallization and preliminary X-ray diffraction analysis of L-aminoacylase from the hyperthermophilic archaeon <i>Thermococcus litoralis</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2002, 58, 507-510.	2.5	8
78	Crystallization and preliminary X-ray analysis of a β -lactamase. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2001, 57, 284-286.	2.5	20
79	Site-directed mutagenesis of proline 204 in the "hinge" region of yeast phosphoglycerate kinase. <i>FEBS Journal</i> , 2001, 259, 939-946.	0.2	33
80	The atomic-resolution structure of a novel bacterial esterase. <i>Structure</i> , 2000, 8, 143-151.	1.6	72
81	Crystal structure of dodecameric vanadium-dependent bromoperoxidase from the red algae <i>Corallina officinalis</i> 1 Edited by R. Huber. <i>Journal of Molecular Biology</i> , 2000, 299, 1035-1049.	2.0	185
82	Haloperoxidases and their role in biotransformation reactions. <i>Current Opinion in Chemical Biology</i> , 1999, 3, 28-34.	2.8	119
83	Crystallization and preliminary X-ray diffraction studies of pyrrolidone carboxyl peptidase from the hyperthermophilic archaeon <i>Thermococcus litoralis</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 1999, 55, 702-703.	2.5	7
84	Crystal structure of the glyceraldehyde-3-phosphate dehydrogenase from the hyperthermophilic archaeon <i>Sulfolobus solfataricus</i> 1 Edited by R. Huber. <i>Journal of Molecular Biology</i> , 1999, 291, 651-660.	2.0	62
85	Crystal structure of human muscle aldolase complexed with fructose 1,6-bisphosphate: Mechanistic implications. <i>Protein Science</i> , 1999, 8, 291-297.	3.1	93
86	Preliminary X-ray analysis of a new crystal form of the vanadium-dependent bromoperoxidase from <i>Corallina officinalis</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 1998, 54, 454-457.	2.5	14
87	Molecular modelling studies of substrate binding to the lipase from <i>Rhizomucor miehei</i> . <i>Journal of Computer-Aided Molecular Design</i> , 1997, 11, 256-264.	1.3	11
88	Complementation of <i>apgk</i> deletion mutation in <i>Saccharomyces cerevisiae</i> with expression of the phosphoglycerate-kinase gene from the hyperthermophilic Archaeon <i>Sulfolobus solfataricus</i> . <i>Current Genetics</i> , 1996, 29, 594-596.	0.8	3
89	Complementation of a <i>pgk</i> deletion mutation in <i>Saccharomyces cerevisiae</i> with expression of the phosphoglycerate-kinase gene from the hyperthermophilic Archaeon <i>Sulfolobus solfataricus</i> . <i>Current Genetics</i> , 1996, 29, 594-596.	0.8	5
90	The purification and crystallisation of 2,5-diketocamphane 1,2 monooxygenase and 3,6-diketocamphane 1,6 monooxygenase from <i>Pseudomonas putida</i> NCIMB 10007. <i>Biochemical Society Transactions</i> , 1996, 24, 29S-29S.	1.6	8

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91	The Phosphoglycerate Kinase and glysceraldehyde-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
92	Purification, crystallisation and preliminary X-ray analysis of the vanadium-dependent haloperoxidase from Corallina officinalis. FEBS Letters, 1995, 359, 244-246.	1.3	33
93	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
94	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
95	Site-directed mutagenesis of yeast phosphoglycerate kinase. FEBS Letters, 1993, 320, 193-197.	1.3	6
96	An investigation of large inhibitors binding to phosphoglycerate kinase and their effect on anion activation. FEBS Journal, 1992, 205, 1077-1088.	0.2	8
97	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
98	Site-directed mutagenesis of yeast phosphoglycerate kinase. The 'basic-patch' residue arginine 168. FEBS Journal, 1989, 183, 49-55.	0.2	24
99	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
100	Site-directed mutagenesis of histidine 62 in the 'basic patch' region of yeast phosphoglycerate kinase. FEBS Letters, 1989, 258, 247-250.	1.3	14
101	NMR analysis of the interdomain region of yeast phosphoglycerate kinase. FEBS Journal, 1988, 170, 529-538.	0.2	47
102	Probing the 3-phosphoglycerate-binding site of yeast phosphoglycerate kinase using site-specific mutants and ¹ H nuclear magnetic resonance spectroscopy. Biochemical Society Transactions, 1988, 16, 724-725.	1.6	1
103	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
104	The type II restriction enzymes HgiAI and TaqI: purification and properties. Biochemical Society Transactions, 1986, 14, 268-269.	1.6	0
105	Structural and Functional Studies on Protein S20 from the 30S Subunit of the Escherichia coli Ribosome. FEBS Journal, 1983, 129, 543-548.	0.2	12
106	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