Emily J Parker

List of Publications by Year
in descending order

93 papers	2,476 citations	257450 24 h-index	233421 45 g-index
96 all docs	96 docs citations	96 times ranked	2619 citing authors

#	Article	IF	Citations
1	Aminoacylation of Indole Diterpenes by Cluster-Specific Monomodular NRPS-like Enzymes. Organic Letters, 2022, 24, 2332-2337.	4.6	7
2	Reciprocal allostery arising from a bienzyme assembly controls aromatic amino acid biosynthesis in Prevotella nigrescens. Journal of Biological Chemistry, 2021, 297, 101038.	3.4	2
3	Diverse allosteric componentry and mechanisms control entry into aromatic metabolite biosynthesis. Current Opinion in Structural Biology, 2020, 65, 159-167.	5.7	11
4	Editorial overview: Catalysis and regulation. Current Opinion in Structural Biology, 2020, 65, iii-iv.	5.7	0
5	A single amino acid substitution uncouples catalysis and allostery in an essential biosynthetic enzyme in Mycobacterium tuberculosis. Journal of Biological Chemistry, 2020, 295, 6252-6262.	3.4	13
6	Domain cross-talk within a bifunctional enzyme provides catalytic and allosteric functionality in the biosynthesis of aromatic amino acids. Journal of Biological Chemistry, 2019, 294, 4828-4842.	3.4	8
7	Nodulisporic acid E biosynthesis: in vivo characterisation of NodD1, an indole-diterpene prenyltransferase that acts on an emindole SB derived indole-diterpene scaffold. MedChemComm, 2019, 10, 1160-1164.	3.4	8
8	Hinge Twists and Population Shifts Deliver Regulated Catalysis for ATP-PRT in Histidine Biosynthesis. Biophysical Journal, 2019, 116, 1887-1897.	0.5	3
9	Exploring modular allostery via interchangeable regulatory domains. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 3006-3011.	7.1	27
10	MIDAS: A Modular DNA Assembly System for Synthetic Biology. ACS Synthetic Biology, 2018, 7, 1018-1029.	3.8	42
11	Heterologous Biosynthesis of Nodulisporic Acid F. Journal of the American Chemical Society, 2018, 140, 582-585.	13.7	39
12	A dimeric catalytic core relates the short and long forms of ATP-phosphoribosyltransferase. Biochemical Journal, 2018, 475, 247-260.	3.7	12
13	A Pseudoisostructural Type II DAH7PS Enzyme from <i>Pseudomonas aeruginosa</i>: Alternative Evolutionary Strategies to Control Shikimate Pathway Flux. Biochemistry, 2018, 57, 2667-2678.	2.5	14
14	Anthranilate phosphoribosyltransferase: Binding determinants for 5â€²-phospho-alpha- d -ribosyl-1â€²-pyrophosphate (PRPP) and the implications for inhibitor design. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 264-274.	2.3	5
15	Structural and functional characterisation of the entry point to pyocyanin biosynthesis in <i>Pseudomonas aeruginosa</i> defines a new 3-deoxy-<scp>d</scp>-arabino-heptulosonate 7-phosphate synthase subclass. Bioscience Reports, 2018, 38, .	2.4	14
16	Draft Genome Sequence of the Filamentous Fungus <i>Hypoxylon pulicicidum</i> ATCC 74245. Genome Announcements, 2018, 6, .	0.8	8
17	â€˜Tetheringâ€™ fragment-based drug discovery to identify inhibitors of the essential respiratory membrane protein type II NADH dehydrogenase. Bioorganic and Medicinal Chemistry Letters, 2018, 28, 2239-2243.	2.2	10
18	Transition State Analysis of Adenosine Triphosphate Phosphoribosyltransferase. ACS Chemical Biology, 2017, 12, 2662-2670.	3.4	12

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19	Datasets, processing and refinement details for Mtb -AnPRT: inhibitor structures with various space groups. Data in Brief, 2017, 15, 1019-1029.	1.0	2
20	Quaternary structure is an essential component that contributes to the sophisticated allosteric regulation mechanism in a key enzyme from Mycobacterium tuberculosis. PLoS ONE, 2017, 12, e0180052.	2.5	18
21	Probing the Sophisticated Synergistic Allosteric Regulation of Aromatic Amino Acid Biosynthesis in Mycobacterium tuberculosis Using á´…-Amino Acids. PLoS ONE, 2016, 11, e0152723.	2.5	6
22	<i>Campylobacter jejuni</i> adenosine triphosphate phosphoribosyltransferase is an active hexamer that is allosterically controlled by the twisting of a regulatory tail. Protein Science, 2016, 25, 1492-1506.	7.6	15
23	Independent catalysis of the short form HisG from <i>Lactococcus lactis</i>. FEBS Letters, 2016, 590, 2603-2610.	2.8	12
24	Interdomain Conformational Changes Provide Allosteric Regulation en Route to Chorismate. Journal of Biological Chemistry, 2016, 291, 21836-21847.	3.4	22
25	First structure of full-length mammalian phenylalanine hydroxylase reveals the architecture of an autoinhibited tetramer. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 2394-2399.	7.1	46
26	On the Temperature Dependence of Enzyme-Catalyzed Rates. Biochemistry, 2016, 55, 1681-1688.	2.5	233
27	Calculated p<i>K</i>_a Variations Expose Dynamic Allosteric Communication Networks. Journal of the American Chemical Society, 2016, 138, 2036-2045.	13.7	18
28	The Functional Unit of Neisseria meningitidis 3-Deoxy-á´…-Arabino-Heptulosonate 7-Phosphate Synthase Is Dimeric. PLoS ONE, 2016, 11, e0145187.	2.5	6
29	Structures of <i>Mycobacterium tuberculosis</i> Anthranilate Phosphoribosyltransferase Variants Reveal the Conformational Changes That Facilitate Delivery of the Substrate to the Active Site. Biochemistry, 2015, 54, 6082-6092.	2.5	11
30	The Molecular Basis for the Substrate Specificity of Protein Tyrosine Phosphatase PTPN3. Structure, 2015, 23, 608-609.	3.3	6
31	Complex Formation between Two Biosynthetic Enzymes Modifies the Allosteric Regulatory Properties of Both. Journal of Biological Chemistry, 2015, 290, 18187-18198.	3.4	26
32	Structural analysis of substrate-mimicking inhibitors in complex with Neisseria meningitidis 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase â€“ The importance of accommodating the active site water. Bioorganic Chemistry, 2014, 57, 242-250.	4.1	7
33	Allosteric ACTion: the varied ACT domains regulating enzymes of amino-acid metabolism. Current Opinion in Structural Biology, 2014, 29, 102-111.	5.7	64
34	Editorial overview: Catalysis and regulation: Enzyme catalysis, biosynthetic pathways and regulation. Current Opinion in Structural Biology, 2014, 29, iv-v.	5.7	0
35	Alternative substrates reveal catalytic cycle and key binding events in the reaction catalysed by anthranilate phosphoribosyltransferase from <i>Mycobacterium tuberculosis</i>. Biochemical Journal, 2014, 461, 87-98.	3.7	18
36	Substrate-mediated control of the conformation of an ancillary domain delivers a competent catalytic site for N -acetylneuraminic acid synthase. Proteins: Structure, Function and Bioinformatics, 2014, 82, 2054-2066.	2.6	2

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37	Modifying the determinants of Î±â€ketoacid substrate selectivity in <i>mycobacterium tuberculosis</i> Î±â€isopropylmalate synthase. FEBS Letters, 2014, 588, 1603-1607.	2.8	12
38	Probing the determinants of phosphorylated sugar-substrate binding for human sialic acid synthase. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2014, 1844, 2257-2264.	2.3	4
39	Destabilization of the Homotetrameric Assembly of 3-Deoxy-d-Arabino-Heptulosonate-7-Phosphate Synthase from the Hyperthermophile Pyrococcus furiosus Enhances Enzymatic Activity. Journal of Molecular Biology, 2014, 426, 656-673.	4.2	13
40	Change in Heat Capacity for Enzyme Catalysis Determines Temperature Dependence of Enzyme Catalyzed Rates. ACS Chemical Biology, 2013, 8, 2388-2393.	3.4	164
41	Biochemical and structural characterisation of dehydroquinate synthase from the New Zealand kiwifruit Actinidia chinensis. Archives of Biochemistry and Biophysics, 2013, 537, 185-191.	3.0	18
42	Active site plasticity of a critical enzyme from Mycobacterium tuberculosis. RSC Advances, 2013, 3, 3209.	3.6	2
43	Engineering allosteric control to an unregulated enzyme by transfer of a regulatory domain. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2111-2116.	7.1	44
44	Amino-acid substitutions at the domain interface affect substrate and allosteric inhibitor binding in Î±-isopropylmalate synthase from Mycobacterium tuberculosis. Biochemical and Biophysical Research Communications, 2013, 433, 249-254.	2.1	7
45	Three Sites and You Are Out: Ternary Synergistic Allostery Controls Aromatic Amino Acid Biosynthesis in Mycobacterium tuberculosis. Journal of Molecular Biology, 2013, 425, 1582-1592.	4.2	38
46	Allosteric inhibitor specificity of <i>Thermotoga maritima</i> 3â€deoxyâ€<scp>d</scp>â€<i>arabino</i>â€heptulosonate 7â€phosphate synthase. FEBS Letters, 2013, 587, 3063-3068.	2.8	9
47	Examining the Role of Intersubunit Contacts in Catalysis by 3-Deoxy-<scp>d</scp>-<i>manno</i>-octulosonate 8-Phosphate Synthase. Biochemistry, 2013, 52, 4676-4686.	2.5	3
48	Arg314 Is Essential for Catalysis by <i>N</i>-Acetyl Neuraminic Acid Synthase from <i>Neisseria meningitidis</i>. Biochemistry, 2013, 52, 2609-2619.	2.5	9
49	The Substrate Capture Mechanism of Mycobacterium tuberculosis Anthranilate Phosphoribosyltransferase Provides a Mode for Inhibition. Biochemistry, 2013, 52, 1776-1787.	2.5	23
50	Deletion and Gene Expression Analyses Define the Paxilline Biosynthetic Gene Cluster in Penicillium paxilli. Toxins, 2013, 5, 1422-1446.	3.4	29
51	<i>Neisseria meningitidis</i> expresses a single 3â€deoxyâ€<scp>d</scp>â€<i>arabino</i>â€heptulosonate 7â€phosphate synthase that is inhibited primarily by phenylalanine. Protein Science, 2013, 22, 1087-1099.	7.6	26
52	Key Targets and Relevant Inhibitors for the Drug Discovery of Tuberculosis. Current Drug Targets, 2013, 14, 676-699.	2.1	8
53	Removal of the C-Terminal Regulatory Domain of Î±-Isopropylmalate Synthase Disrupts Functional Substrate Binding. Biochemistry, 2012, 51, 2289-2297.	2.5	18
54	Dynamic Cross-Talk among Remote Binding Sites: The Molecular Basis for Unusual Synergistic Allostery. Journal of Molecular Biology, 2012, 415, 716-726.	4.2	39

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55	Using a Combination of Computational and Experimental Techniques to Understand the Molecular Basis for Protein Allostery. Advances in Protein Chemistry and Structural Biology, 2012, 87, 391-413.	2.3	11
56	Synthesis and evaluation of tetrahedral intermediate mimic inhibitors of 3-deoxy-d-manno-octulosonate 8-phosphate synthase. Bioorganic and Medicinal Chemistry Letters, 2012, 22, 907-911.	2.2	8
57	Fluorinated substrates result in variable leakage of a reaction intermediate during catalysis by dehydroquinate synthase. Organic and Biomolecular Chemistry, 2011, 9, 2861.	2.8	2
58	An Extended Î²7Î±7 Substrate-Binding Loop Is Essential for Efficient Catalysis by 3-Deoxy-<scp>d</scp>-<i>manno</i>-Octulosonate 8-Phosphate Synthase. Biochemistry, 2011, 50, 9318-9327.	2.5	5
59	Synthesis and evaluation of dual site inhibitors of 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 5092-5097.	2.2	13
60	Investigating the role of the hydroxyl groups of substrate erythrose 4-phosphate in the reaction catalysed by the first enzyme of the shikimate pathway. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 6838-6841.	2.2	4
61	Targeting the Role of a Key Conserved Motif for Substrate Selection and Catalysis by 3-Deoxy-<scp>d</scp>-<i>manno</i>-octulosonate 8-Phosphate Synthase. Biochemistry, 2011, 50, 3686-3695.	2.5	7
62	Expression, Purification, and Characterisation of Dehydroquinate Synthase from Pyrococcus furiosus. Enzyme Research, 2011, 2011, 1-10.	1.8	2
63	Tyrosine Latching of a Regulatory Gate Affords Allosteric Control of Aromatic Amino Acid Biosynthesis. Journal of Biological Chemistry, 2011, 286, 10216-10224.	3.4	56
64	Potent Inhibitors of a Shikimate Pathway Enzyme from Mycobacterium tuberculosis. Journal of Biological Chemistry, 2011, 286, 16197-16207.	3.4	37
65	Specificity and mutational analysis of the metal-dependent 3-deoxy-d-manno-octulosonate 8-phosphate synthase from Acidithiobacillus ferrooxidans. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 1526-1536.	2.3	9
66	Synergistic Allostery, a Sophisticated Regulatory Network for the Control of Aromatic Amino Acid Biosynthesis in Mycobacterium tuberculosis. Journal of Biological Chemistry, 2010, 285, 30567-30576.	3.4	63
67	Molecular Modeling Studies of Peptide Inhibitors Highlight the Importance of Conformational Prearrangement for Inhibition of Calpain. Biochemistry, 2010, 49, 5533-5539.	2.5	7
68	The C-terminal regulatory domain is required for catalysis by Neisseria meningitidis Î±-isopropylmalate synthase. Biochemical and Biophysical Research Communications, 2010, 393, 168-173.	2.1	12
69	Cloning and characterisation of dihydrodipicolinate synthase from the pathogen Neisseria meningitidis. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2009, 1794, 1168-1174.	2.3	32
70	Reversing Evolution: Re-establishing Obligate Metal Ion Dependence in a Metal-independent KDO8P Synthase. Journal of Molecular Biology, 2009, 390, 646-661.	4.2	15
71	Erratum to â€œReversing Evolution: Re-establishing Obligate Metal Ion Dependence in a Metal-independent KDO8P Synthaseâ€•[J. Mol. Biol. 390 (2009) 646â€“661]. Journal of Molecular Biology, 2009, 393, 1004-1005.	4.2	0
72	Substrate and reaction intermediate mimics as inhibitors of 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase. Organic and Biomolecular Chemistry, 2009, 7, 3031.	2.8	14

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73	Arabinose 5-phosphate analogues as mechanistic probes for Neisseria meningitidis 3-deoxy-d-manno-octulosonate 8-phosphate synthase. Bioorganic and Medicinal Chemistry, 2008, 16, 9830-9836.	3.0	10
74	The genetic basis for indole-diterpene chemical diversity in filamentous fungi. Mycological Research, 2008, 112, 184-199.	2.5	136
75	Defining Paxilline Biosynthesis in Penicillium paxilli. Journal of Biological Chemistry, 2007, 282, 16829-16837.	3.4	65
76	Four gene products are required for the fungal synthesis of the indole-diterpene, paspaline. FEBS Letters, 2006, 580, 1625-1630.	2.8	62
77	Synthesis and evaluation of a mechanism-based inhibitor of a 3-deoxy-d-arabino heptulosonate 7-phosphate synthase. Bioorganic and Medicinal Chemistry Letters, 2006, 16, 2951-2954.	2.2	16
78	A symbiosis expressed non-ribosomal peptide synthetase from a mutualistic fungal endophyte of perennial ryegrass confers protection to the symbiotum from insect herbivory. Molecular Microbiology, 2005, 57, 1036-1050.	2.5	285
79	Stereospecific deuteration of 2-deoxyerythrose 4-phosphate using 3-deoxy-D-arabino-heptulosonate 7-phosphate synthase. Bioorganic and Medicinal Chemistry Letters, 2005, 15, 2339-2342.	2.2	9
80	Crystallization and preliminary X-ray crystallographic analysis of 3-deoxy-D-arabino-heptulosonate-7-phosphate synthase fromMycobacterium tuberculosis. Acta Crystallographica Section F: Structural Biology Communications, 2005, 61, 403-406.	0.7	11
81	Characterization of a recombinant type II 3-deoxy-D-arabino-heptulosonate-7-phosphate synthase from Helicobacter pylori. Biochemical Journal, 2005, 390, 223-230.	3.7	23
82	The Structure of 3-Deoxy-d-arabino-heptulosonate 7-phosphate Synthase from Mycobacterium tuberculosis Reveals a Common Catalytic Scaffold and Ancestry for Type I and Type II Enzymes. Journal of Molecular Biology, 2005, 354, 927-939.	4.2	74
83	Mechanistic divergence of two closely related aldol-like enzyme-catalysed reactions. Organic and Biomolecular Chemistry, 2005, 3, 4046.	2.8	20
84	Substrate Ambiguity and Crystal Structure of Pyrococcus furiosus 3-Deoxy-d-arabino-heptulosonate-7-phosphate Synthase:â€‰ An Ancestral 3-Deoxyald-2-ulosonate-phosphate Synthase?,. Biochemistry, 2005, 44, 11950-11962.	2.5	49
85	Identification of 4-Amino-4-deoxychorismate Synthase as the Molecular Target for the Antimicrobial Action of (6S)-6-Fluoroshikimate. Journal of the American Chemical Society, 2004, 126, 9912-9913.	13.7	39
86	Expression, purification, and characterization of 3-deoxy-d-arabino-heptulosonate 7-phosphate synthase from Pyrococcus furiosus. Protein Expression and Purification, 2004, 34, 17-27.	1.3	32
87	Enzymic synthesis of 3-[3-13C]dehydroquinic acid. Organic and Biomolecular Chemistry, 2003, 1, 3271.	2.8	2
88	Screening of New Zealand Native White-Rot Isolates for PCP Degradation. Bioremediation Journal, 2003, 7, 119-128.	2.0	19
89	Substrate Deactivation of Phenylalanine-Sensitive 3-Deoxy-d-arabino-heptulosonate 7-Phosphate Synthase by Erythrose 4-Phosphateâ€. Biochemistry, 2001, 40, 14821-14828.	2.5	12
90	Mechanistic studies on type I and type II dehydroquinase with (6 R)- and (6 S)-6-fluoro-3-dehydroquinic acids. Bioorganic and Medicinal Chemistry Letters, 2000, 10, 231-234.	2.2	12

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91	Selective Inhibition of Type II Dehydroquinases. Journal of Organic Chemistry, 1999, 64, 2612-2613.	3.2	42
92	Derailing Dehydroquinate Synthase by Introducing a Stabilizing Stereoelectronic Effect in a Reaction Intermediate. Journal of Organic Chemistry, 1997, 62, 8582-8585.	3.2	12
93	Enzymatic synthesis of (6R)- and (6S)-fluoroshikimic acids. Bioorganic and Medicinal Chemistry Letters, 1995, 5, 2347-2352.	2.2	32