

# Colin J Jackson

## List of Publications by Year in descending order

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148  
papers

6,437  
citations

61977

43  
h-index

88628

70  
g-index

179  
all docs

179  
docs citations

179  
times ranked

7529  
citing authors

#	ARTICLE	IF	CITATIONS
1	Genomic and metagenomic surveys of hydrogenase distribution indicate H <sub>2</sub> is a widely utilised energy source for microbial growth and survival. <i>ISME Journal</i> , 2016, 10, 761-777.	9.8	503
2	Biochemistry of Microbial Degradation of Hexachlorocyclohexane and Prospects for Bioremediation. <i>Microbiology and Molecular Biology Reviews</i> , 2010, 74, 58-80.	6.6	331
3	The role of protein dynamics in the evolution of new enzyme function. <i>Nature Chemical Biology</i> , 2016, 12, 944-950.	8.0	252
4	Diminishing returns and tradeoffs constrain the laboratory optimization of an enzyme. <i>Nature Communications</i> , 2012, 3, 1257.	12.8	196
5	LTP Induction Boosts Glutamate Spillover by Driving Withdrawal of Perisynaptic Astroglia. <i>Neuron</i> , 2020, 108, 919-936.e11.	8.1	159
6	Evolutionary Optimization of Computationally Designed Enzymes: Kemp Eliminases of the KE07 Series. <i>Journal of Molecular Biology</i> , 2010, 396, 1025-1042.	4.2	154
7	Sensing and signaling of oxidative stress in chloroplasts by inactivation of the SAL1 phosphoadenosine phosphatase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, E4567-76.	7.1	147
8	The enzymatic basis for pesticide bioremediation. <i>Indian Journal of Microbiology</i> , 2008, 48, 65-79.	2.7	144
9	Physiology, Biochemistry, and Applications of F <sub>420</sub> - and F <sub>o</sub> -Dependent Redox Reactions. <i>Microbiology and Molecular Biology Reviews</i> , 2016, 80, 451-493.	6.6	136
10	Identification and characterization of two families of F <sub>420</sub> H <sub>2</sub> -dependent reductases from <i>Mycobacteria</i> that catalyse aflatoxin degradation. <i>Molecular Microbiology</i> , 2010, 78, 561-575.	2.5	132
11	Reconstructing a Missing Link in the Evolution of a Recently Diverged Phosphotriesterase by Active-Site Loop Remodeling. <i>Biochemistry</i> , 2012, 51, 6047-6055.	2.5	128
12	The evolution of new enzyme function: lessons from xenobiotic metabolizing bacteria versus insecticide-resistant insects. <i>Evolutionary Applications</i> , 2011, 4, 225-248.	3.1	113
13	Structure and function of an insect Î±-carboxylesterase (Î±-Esterase 7) associated with insecticide resistance. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, 10177-10182.	7.1	112
14	Conformational sampling, catalysis, and evolution of the bacterial phosphotriesterase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 21631-21636.	7.1	110
15	Laboratory evolution of protein conformational dynamics. <i>Current Opinion in Structural Biology</i> , 2018, 50, 49-57.	5.7	87
16	Ancestral Protein Reconstruction Yields Insights into Adaptive Evolution of Binding Specificity in Solute-Binding Proteins. <i>Cell Chemical Biology</i> , 2016, 23, 236-245.	5.2	84
17	In Crystallo Capture of a Michaelis Complex and Product-binding Modes of a Bacterial Phosphotriesterase. <i>Journal of Molecular Biology</i> , 2008, 375, 1189-1196.	4.2	81
18	Protein engineering with unnatural amino acids. <i>Current Opinion in Structural Biology</i> , 2013, 23, 581-587.	5.7	80

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19	Evolution of cyclohexadienyl dehydratase from an ancestral solute-binding protein. <i>Nature Chemical Biology</i> , 2018, 14, 542-547.	8.0	79
20	Improving a Natural Enzyme Activity through Incorporation of Unnatural Amino Acids. <i>Journal of the American Chemical Society</i> , 2011, 133, 326-333.	13.7	77
21	The structure of an enzyme's product complex reveals the critical role of a terminal hydroxide nucleophile in the bacterial phosphotriesterase mechanism. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2005, 1752, 56-64.	2.3	75
22	The evolution of multiple active site configurations in a designed enzyme. <i>Nature Communications</i> , 2018, 9, 3900.	12.8	75
23	Substrate-Promoted Formation of a Catalytically Competent Binuclear Center and Regulation of Reactivity in a Glycerophosphodiesterase from <i>Enterobacter aerogenes</i> . <i>Journal of the American Chemical Society</i> , 2008, 130, 14129-14138.	13.7	72
24	Higher-order epistasis shapes the fitness landscape of a xenobiotic-degrading enzyme. <i>Nature Chemical Biology</i> , 2019, 15, 1120-1128.	8.0	71
25	Ancestral sequence reconstruction for protein engineers. <i>Current Opinion in Structural Biology</i> , 2021, 69, 131-141.	5.7	69
26	Growth of <i>Escherichia coli</i> Coexpressing Phosphotriesterase and Glycerophosphodiester Phosphodiesterase, Using Paraoxon as the Sole Phosphorus Source. <i>Applied and Environmental Microbiology</i> , 2004, 70, 404-412.	3.1	67
27	Sequence-Structure-Function Classification of a Catalytically Diverse Oxidoreductase Superfamily in <i>Mycobacteria</i> . <i>Journal of Molecular Biology</i> , 2015, 427, 3554-3571.	4.2	67
28	The Structure and Function of a Novel Glycerophosphodiesterase from <i>Enterobacter aerogenes</i> . <i>Journal of Molecular Biology</i> , 2007, 367, 1047-1062.	4.2	66
29	The methanogenic redox cofactor F420 is widely synthesized by aerobic soil bacteria. <i>ISME Journal</i> , 2017, 11, 125-137.	9.8	66
30	Reverse evolution leads to genotypic incompatibility despite functional and active site convergence. <i>ELife</i> , 2015, 4, .	6.0	65
31	Protein engineering: the potential of remote mutations. <i>Biochemical Society Transactions</i> , 2019, 47, 701-711.	3.4	62
32	Construction of a robust and sensitive arginine biosensor through ancestral protein reconstruction. <i>Protein Science</i> , 2015, 24, 1412-1422.	7.6	60
33	Monitoring hippocampal glycine with the computationally designed optical sensor GlyFS. <i>Nature Chemical Biology</i> , 2018, 14, 861-869.	8.0	60
34	Use of Engineered Enzymes to Identify Organophosphate and Pyrethroid-Related Toxicity in Toxicity Identification Evaluations. <i>Environmental Science &amp; Technology</i> , 2009, 43, 5514-5520.	10.0	59
35	An integrative analysis of non-coding regulatory DNA variations associated with autism spectrum disorder. <i>Molecular Psychiatry</i> , 2019, 24, 1707-1719.	7.9	59
36	Catalytic Improvement and Evolution of Atrazine Chlorohydrolase. <i>Applied and Environmental Microbiology</i> , 2009, 75, 2184-2191.	3.1	57

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37	Bridging the Synaptic Gap: Neuroligins and Neurexin I in <i>Apis mellifera</i> . PLoS ONE, 2008, 3, e3542.	2.5	56
38	Anomalous scattering analysis of <i>Agrobacterium radiobacter</i> phosphotriesterase: the prominent role of iron in the heterobinuclear active site. Biochemical Journal, 2006, 397, 501-508.	3.7	55
39	A revised biosynthetic pathway for the cofactor F420 in prokaryotes. Nature Communications, 2019, 10, 1558.	12.8	55
40	Characterization of the phenylurea hydrolases A and B: founding members of a novel amidohydrolase subgroup. Biochemical Journal, 2009, 418, 431-441.	3.7	54
41	Denisovan, modern human and mouse TNFAIP3 alleles tune A20 phosphorylation and immunity. Nature Immunology, 2019, 20, 1299-1310.	14.5	53
42	Structures of a non-ribosomal peptide synthetase condensation domain suggest the basis of substrate selectivity. Nature Communications, 2021, 12, 2511.	12.8	53
43	Predicting nitroimidazole antibiotic resistance mutations in <i>Mycobacterium tuberculosis</i> with protein engineering. PLoS Pathogens, 2020, 16, e1008287.	4.7	51
44	Intramolecular Epistasis and the Evolution of a New Enzymatic Function. PLoS ONE, 2012, 7, e39822.	2.5	49
45	T-dependent B cell responses to <i>Plasmodium</i> induce antibodies that form a high-avidity multivalent complex with the circumsporozoite protein. PLoS Pathogens, 2017, 13, e1006469.	4.7	49
46	Kistamicin biosynthesis reveals the biosynthetic requirements for production of highly crosslinked glycopeptide antibiotics. Nature Communications, 2019, 10, 2613.	12.8	48
47	Conformational Tinkering Drives Evolution of a Promiscuous Activity through Indirect Mutational Effects. Biochemistry, 2016, 55, 4583-4593.	2.5	47
48	A Polymer Surfactant Corona Dynamically Replaces Water in Solvent-Free Protein Liquids and Ensures Macromolecular Flexibility and Activity. Journal of the American Chemical Society, 2012, 134, 13168-13171.	13.7	45
49	Local Efficacy of Glutamate Uptake Decreases with Synapse Size. Cell Reports, 2020, 32, 108182.	6.4	42
50	Evolution of Protein Quaternary Structure in Response to Selective Pressure for Increased Thermostability. Journal of Molecular Biology, 2016, 428, 2359-2371.	4.2	40
51	Molecular basis for the behavioral effects of the odorant degrading enzyme Esterase 6 in <i>Drosophila</i> . Scientific Reports, 2017, 7, 46188.	3.3	40
52	Structural and functional characterization of a putative de novo gene in <i>Drosophila</i> . Nature Communications, 2021, 12, 1667.	12.8	40
53	Testing the evolvability of an insect carboxylesterase for the detoxification of synthetic pyrethroid insecticides. Insect Biochemistry and Molecular Biology, 2012, 42, 343-352.	2.7	39
54	A Comprehensive Phylogenetic Analysis of the Serpin Superfamily. Molecular Biology and Evolution, 2021, 38, 2915-2929.	8.9	39

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55	A 5000-Fold Increase in the Specificity of a Bacterial Phosphotriesterase for Malathion through Combinatorial Active Site Mutagenesis. <i>PLoS ONE</i> , 2014, 9, e94177.	2.5	37
56	Altered conformational sampling along an evolutionary trajectory changes the catalytic activity of an enzyme. <i>Nature Communications</i> , 2020, 11, 5945.	12.8	36
57	Structure-Based Rational Design of a Phosphotriesterase. <i>Applied and Environmental Microbiology</i> , 2009, 75, 5153-5156.	3.1	35
58	The Redox Cofactor F 420 Protects Mycobacteria from Diverse Antimicrobial Compounds and Mediates a Reductive Detoxification System. <i>Applied and Environmental Microbiology</i> , 2016, 82, 6810-6818.	3.1	35
59	The Structure and Stability of the Disulfide-Linked $\hat{I}^3$ S-Crystallin Dimer Provide Insight into Oxidation Products Associated with Lens Cataract Formation. <i>Journal of Molecular Biology</i> , 2019, 431, 483-497.	4.2	35
60	Cryptic genetic variation shapes the adaptive evolutionary potential of enzymes. <i>ELife</i> , 2019, 8, .	6.0	35
61	Immunizations with diverse sarbecovirus receptor-binding domains elicit SARS-CoV-2 neutralizing antibodies against a conserved site of vulnerability. <i>Immunity</i> , 2021, 54, 2908-2921.e6.	14.3	35
62	The effects of substrate orientation on the mechanism of a phosphotriesterase. <i>Organic and Biomolecular Chemistry</i> , 2005, 3, 4343.	2.8	32
63	Increased expression of a bacterial phosphotriesterase in <i>Escherichia coli</i> through directed evolution. <i>Protein Expression and Purification</i> , 2005, 41, 433-440.	1.3	31
64	Rv2074 is a novel F 420 H 2 $\hat{a}$ -dependent biliverdin reductase in <i>Mycobacterium tuberculosis</i> . <i>Protein Science</i> , 2016, 25, 1692-1709.	7.6	31
65	Overcoming insecticide resistance through computational inhibitor design. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 21012-21021.	7.1	31
66	Cofactor F420-Dependent Enzymes: An Under-Explored Resource for Asymmetric Redox Biocatalysis. <i>Catalysts</i> , 2019, 9, 868.	3.5	29
67	Antiviral cyclic peptides targeting the main protease of SARS-CoV-2. <i>Chemical Science</i> , 2022, 13, 3826-3836.	7.4	29
68	Surface Functionalization and Texturing of Optical Metasurfaces for Sensing Applications. <i>Chemical Reviews</i> , 2022, 122, 14990-15030.	47.7	29
69	Evolutionary Expansion of the Amidohydrolase Superfamily in Bacteria in Response to the Synthetic Compounds Molinate and Diuron. <i>Applied and Environmental Microbiology</i> , 2015, 81, 2612-2624.	3.1	27
70	Mycobacterial F420H2-Dependent Reductases Promiscuously Reduce Diverse Compounds through a Common Mechanism. <i>Frontiers in Microbiology</i> , 2017, 8, 1000.	3.5	27
71	Structural Basis for the Allosteric Regulation of the SbtA Bicarbonate Transporter by the P<sub>II</sub>-like Protein, SbtB, from <i>Cyanobium</i> sp. PCC7001. <i>Biochemistry</i> , 2019, 58, 5030-5039.	2.5	27
72	Challenges of short substrate analogues as SARS-CoV-2 main protease inhibitors. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2021, 50, 128333.	2.2	26

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73	Structural and evolutionary approaches to the design and optimization of fluorescence-based small molecule biosensors. <i>Current Opinion in Structural Biology</i> , 2019, 57, 31-38.	5.7	25
74	Malonate-bound structure of the glycerophosphodiesterase from <i>Enterobacter aerogenes</i> (GpdQ) and characterization of the native Fe <sup>2+</sup> metal-ion preference. <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2008, 64, 681-685.	0.7	24
75	Structure of an Insecticide Sequestering Carboxylesterase from the Disease Vector <i>Culex quinquefasciatus</i> : What Makes an Enzyme a Good Insecticide Sponge?. <i>Biochemistry</i> , 2017, 56, 5512-5525.	2.5	24
76	Mining electron density for functionally relevant protein polymorphism in crystal structures. <i>Cellular and Molecular Life Sciences</i> , 2011, 68, 1829-1841.	5.4	23
77	Probing the mechanisms for the selectivity and promiscuity of methyl parathion hydrolase. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2016, 374, 20160150.	3.4	23
78	Classification and substrate head-group specificity of membrane fatty acid desaturases. <i>Computational and Structural Biotechnology Journal</i> , 2016, 14, 341-349.	4.1	22
79	Avid binding by B cells to the Plasmodium circumsporozoite protein repeat suppresses responses to protective subdominant epitopes. <i>Cell Reports</i> , 2021, 35, 108996.	6.4	22
80	Conformational Disorganization within the Active Site of a Recently Evolved Organophosphate Hydrolase Limits Its Catalytic Efficiency. <i>Biochemistry</i> , 2016, 55, 1408-1417.	2.5	21
81	<i>Drosophila melanogaster</i> nonribosomal peptide synthetase Ebony encodes an atypical condensation domain. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 2913-2918.	7.1	21
82	Strategies for Increasing Protein Stability. <i>Methods in Molecular Biology</i> , 2020, 2073, 163-181.	0.9	21
83	Synthesis of a D-Ring Isomer of Galanthamine via a Radical-Based Smiles Rearrangement Reaction. <i>Journal of Organic Chemistry</i> , 2014, 79, 6759-6764.	3.2	20
84	Protonation state of F <sub>420</sub> H <sub>2</sub> in the prodrug-activating deazaflavin dependent nitroreductase (Ddn) from <i>Mycobacterium tuberculosis</i> . <i>Molecular BioSystems</i> , 2016, 12, 1110-1113.	2.9	20
85	Pharmacokinetics of OpdA, an organophosphorus hydrolase, in the African green monkey. <i>Biochemical Pharmacology</i> , 2010, 80, 1075-1079.	4.4	19
86	Mutation of outer-shell residues modulates metal ion co-ordination strength in a metalloenzyme. <i>Biochemical Journal</i> , 2010, 429, 313-321.	3.7	18
87	Competing S <sub>N</sub> <sup>2</sup> and E2 reaction pathways for hexachlorocyclohexane degradation in the gas phase, solution and enzymes. <i>Chemical Communications</i> , 2011, 47, 976-978.	4.1	18
88	Use of OpdA, an organophosphorus (OP) hydrolase, prevents lethality in an African green monkey model of acute OP poisoning. <i>Toxicology</i> , 2014, 317, 1-5.	4.2	16
89	Through-Space Scalar <sup>19</sup> F- <sup>19</sup> F Couplings between Fluorinated Noncanonical Amino Acids for the Detection of Specific Contacts in Proteins. <i>Journal of the American Chemical Society</i> , 2021, 143, 19587-19598.	13.7	16
90	Hydrophobic Shielding Drives Catalysis of Hydride Transfer in a Family of F <sub>420</sub> H <sub>2</sub> -Dependent Enzymes. <i>Biochemistry</i> , 2016, 55, 6908-6918.	2.5	15

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91	Cofactor Tail Length Modulates Catalysis of Bacterial F420-Dependent Oxidoreductases. <i>Frontiers in Microbiology</i> , 2017, 8, 1902.	3.5	15
92	Genetic Encoding of Cyanopyridylalanine for In-Cell Protein Macrocyclization by the Nitrile-Amino Thiol Click Reaction. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	15
93	Kinetics and Efficacy of an Organophosphorus Hydrolase in a Rodent Model of Methylparathion Poisoning. <i>Academic Emergency Medicine</i> , 2010, 17, 736-740.	1.8	14
94	300-Fold Increase in Production of the Zn <sup>2+</sup> -Dependent Dechlorinase TrzN in Soluble Form via Apoenzyme Stabilization. <i>Applied and Environmental Microbiology</i> , 2014, 80, 4003-4011.	3.1	14
95	Iron(III) Located in the Dinuclear Metallo-β-Lactamase IMP-1 by Pseudocontact Shifts. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 14269-14272.	13.8	14
96	Predicting X-ray diffuse scattering from translation-libration-screw structural ensembles. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2015, 71, 1657-1667.	2.5	14
97	Hydrogel-Immobilized Supercharged Proteins. <i>Advanced Biology</i> , 2018, 2, 1700240.	3.0	14
98	FAD-sequestering proteins protect mycobacteria against hypoxic and oxidative stress. <i>Journal of Biological Chemistry</i> , 2019, 294, 2903-5814.	3.4	14
99	Total Syntheses of the 3 <i>H</i> -Pyrrolo[2,3- <i>c</i> ]quinolone-Containing Alkaloids Marinoquinolines A, F, K, and Aplidiopsamine A Using a Palladium-Catalyzed Ullmann Cross-Coupling/Reductive Cyclization Pathway. <i>Journal of Organic Chemistry</i> , 2020, 85, 650-663.	3.2	14
100	Potent Cyclic Peptide Inhibitors of FXIIa Discovered by mRNA Display with Genetic Code Reprogramming. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 7853-7876.	6.4	14
101	Kinetic and Sequence-Structure-Function Analysis of Known LinA Variants with Different Hexachlorocyclohexane Isomers. <i>PLoS ONE</i> , 2011, 6, e25128.	2.5	14
102	Mapping the Accessible Conformational Landscape of an Insect Carboxylesterase Using Conformational Ensemble Analysis and Kinetic Crystallography. <i>Structure</i> , 2016, 24, 977-987.	3.3	13
103	The Synthesis of Certain Derivatives and Analogues of (±)- and (+)-Galanthamine and an Assessment of their Capacities to Inhibit Acetylcholine Esterase. <i>Journal of Organic Chemistry</i> , 2017, 82, 7869-7886.	3.2	13
104	Phosphorescent oxygen-sensing and singlet oxygen production by a biosynthetic silk. <i>RSC Advances</i> , 2016, 6, 39530-39533.	3.6	12
105	Structural reconstruction of protein ancestry. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, 3897-3902.	7.1	12
106	Constrained evolution of a bispecific enzyme: lessons for biocatalyst design. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 937-946.	2.8	12
107	Consensus Mutagenesis and Ancestral Reconstruction Provide Insight into the Substrate Specificity and Evolution of the Front-End Δ <sup>6</sup> -Desaturase Family. <i>Biochemistry</i> , 2020, 59, 1398-1409.	2.5	12
108	Improved production of the non-native cofactor F420 in <i>Escherichia coli</i> . <i>Scientific Reports</i> , 2021, 11, 21774.	3.3	12

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109	Rangefinder: A Semisynthetic FRET Sensor Design Algorithm. <i>ACS Sensors</i> , 2016, 1, 1286-1290.	7.8	11
110	Active Site Desolvation and Thermostability Trade-Offs in the Evolution of Catalytically Diverse Triazine Hydrolases. <i>Biochemistry</i> , 2016, 55, 6304-6313.	2.5	11
111	Bacterial catabolism of s-triazine herbicides: biochemistry, evolution and application. <i>Advances in Microbial Physiology</i> , 2020, 76, 129-186.	2.4	10
112	The purification, crystallization and preliminary diffraction of a glycerophosphodiesterase from <i>Enterobacter aerogenes</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2006, 62, 659-661.	0.7	9
113	Ancestral Protein Reconstruction and Circular Permutation for Improving the Stability and Dynamic Range of FRET Sensors. <i>Methods in Molecular Biology</i> , 2017, 1596, 71-87.	0.9	9
114	Cellular and Structural Basis of Synthesis of the Unique Intermediate Dehydro-F <sub>420</sub> -O in <i>Mycobacteria</i> . <i>MSystems</i> , 2020, 5, .	3.8	9
115	High avidity drives the interaction between the streptococcal C1 phage endolysin, PlyC, with the cell surface carbohydrates of Group A <i>Streptococcus</i> . <i>Molecular Microbiology</i> , 2021, 116, 397-415.	2.5	9
116	Potency boost of a <i>Mycobacterium tuberculosis</i> dihydrofolate reductase inhibitor by multienzyme F <sub>420</sub> H <sub>2</sub> -dependent reduction. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	9
117	Substrate Dynamics Contribute to Enzymatic Specificity in Human and Bacterial Methionine Adenosyltransferases. <i>Jacs Au</i> , 2021, 1, 2349-2360.	7.9	9
118	Potent Bactericidal Antimycobacterials Targeting the Chaperone ClpC1 Based on the Depsipeptide Natural Products Ecumicin and Ohmyungsamycin A. <i>Journal of Medicinal Chemistry</i> , 2022, 65, 4893-4908.	6.4	9
119	Total Syntheses of the Amaryllidaceae Alkaloids Zephycandidine III and Lycosinine A and Their Evaluation as Inhibitors of Acetylcholinesterase. <i>European Journal of Organic Chemistry</i> , 2017, 2017, 4044-4053.	2.4	8
120	Sequential Electrostatic Assembly of a Polymer Surfactant Corona Increases Activity of the Phosphotriesterase arPTE. <i>Bioconjugate Chemistry</i> , 2019, 30, 2771-2776.	3.6	8
121	Resonant Dielectric Metagratings for Response Intensified Optical Sensing. <i>Advanced Functional Materials</i> , 2022, 32, 2103143.	14.9	8
122	The evolution and engineering of enzyme activity through tuning conformational landscapes. <i>Protein Engineering, Design and Selection</i> , 2021, 34, .	2.1	8
123	A Rationally and Computationally Designed Fluorescent Biosensor for d-Serine. <i>ACS Sensors</i> , 2021, 6, 4193-4205.	7.8	8
124	The molecular basis for the neofunctionalization of the juvenile hormone esterase duplication in <i>Drosophila</i> . <i>Insect Biochemistry and Molecular Biology</i> , 2019, 106, 10-18.	2.7	7
125	Enzyme Dynamics and Engineering: One Step at a Time. <i>Chemistry and Biology</i> , 2014, 21, 1259-1260.	6.0	6
126	The Evolution of New Catalytic Mechanisms for Xenobiotic Hydrolysis in Bacterial Metalloenzymes. <i>Australian Journal of Chemistry</i> , 2016, 69, 1383.	0.9	6



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127	Mutational and biophysical robustness in a prestabilized monobody. <i>Journal of Biological Chemistry</i> , 2021, 296, 100447.	3.4	6
128	Adventures on the Routes of Protein Evolutionâ€™In Memoriam Dan Salah Tawfik (1955â€™2021). <i>Journal of Molecular Biology</i> , 2022, 434, 167462.	4.2	6
129	Crystal structure of the mouse interleukin-3 Î²-receptor: insights into interleukin-3 binding and receptor activation. <i>Biochemical Journal</i> , 2014, 463, 393-403.	3.7	5
130	Devising New Syntheses of the Alkaloid Galanthamine, a Potent and Clinically Deployed Inhibitor of Acetylcholine Esterase. <i>Strategies and Tactics in Organic Synthesis</i> , 2015, , 29-50.	0.1	5
131	Human SIRT1 Multispecificity Is Modulated by Active-Site Vicinity Substitutions during Natural Evolution. <i>Molecular Biology and Evolution</i> , 2021, 38, 545-556.	8.9	5
132	Computational design and experimental characterisation of a stable human heparanase variant. <i>RSC Chemical Biology</i> , 2022, 3, 341-349.	4.1	5
133	Engineering a solid-state metalloprotein hydrogen evolution catalyst. <i>Scientific Reports</i> , 2020, 10, 3774.	3.3	4
134	Three-Dimensional Printable Enzymatically Active Plastics. <i>ACS Applied Polymer Materials</i> , 2021, 3, 6070-6077.	4.4	4
135	Directed Evolution of Enzymes. , 2010, , 723-749.		3
136	Enhancement of metallomacrocycle-based oxygen reduction catalysis through immobilization in a tunable silk-protein scaffold. <i>Journal of Inorganic Biochemistry</i> , 2020, 204, 110960.	3.5	3
137	Dynamic Motion and Communication in the Streptococcal C1 Phage Lysin, PlyC. <i>PLoS ONE</i> , 2015, 10, e0140219.	2.5	3
138	Insecticide resistance in field populations of the pear psyllids <i>Cacopsylla permixta</i> and <i>Cacopsylla bidens</i> in Iran. <i>Physiological Entomology</i> , 2022, 47, 73-82.	1.5	3
139	Cloning, expression, purification, crystallization and preliminary X-ray studies of a pyridoxine 5â€™-phosphate oxidase from <i>Mycobacterium smegmatis</i> . <i>Acta Crystallographica Section F: Structural Biology Communications</i> , 2008, 64, 435-437.	0.7	2
140	Method for Developing Optical Sensors Using a Synthetic Dye-Fluorescent Protein FRET Pair and Computational Modeling and Assessment. <i>Methods in Molecular Biology</i> , 2017, 1596, 89-99.	0.9	2
141	Evo-velocity: Protein language modeling accelerates the study of evolution. <i>Cell Systems</i> , 2022, 13, 271-273.	6.2	2
142	Directed Evolution of Enzymes. , 2010, , 654-673.		1
143	Chapter 6. Modulating Enzyme Activity via Incorporation of Non-canonical Amino Acids. <i>RSC Catalysis Series</i> , 2018, , 153-177.	0.1	1
144	Genetic Encoding of Cyanopyridylalanine for Inâ€™Cell Protein Macrocyclization by the Nitrileâ€™Aminothiol Click Reaction. <i>Angewandte Chemie</i> , 0, , .	2.0	0

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145	Title is missing!. , 2020, 16, e1008287.		0
146	Title is missing!. , 2020, 16, e1008287.		0
147	Title is missing!.. , 2020, 16, e1008287.		0
148	Title is missing!.. , 2020, 16, e1008287.		0