

Andrew R Buller

List of Publications by Year in descending order

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Version: 2024-02-01

32
papers

1,652
citations

430874

18
h-index

414414

32
g-index

40
all docs

40
docs citations

40
times ranked

2114
citing authors

#	ARTICLE	IF	CITATIONS
1	Enantioselective, intermolecular benzylic C-H amination catalysed by an engineered iron-haem enzyme. <i>Nature Chemistry</i> , 2017, 9, 629-634.	13.6	319
2	A Homozygous Mutation in Human PRICKLE1 Causes an Autosomal-Recessive Progressive Myoclonus Epilepsy-Ataxia Syndrome. <i>American Journal of Human Genetics</i> , 2008, 83, 572-581.	6.2	199
3	Enzyme-Controlled Nitrogen-Atom Transfer Enables Regiodivergent C-H Amination. <i>Journal of the American Chemical Society</i> , 2014, 136, 15505-15508.	13.7	152
4	Directed evolution of the tryptophan synthase β -subunit for stand-alone function recapitulates allosteric activation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 14599-14604.	7.1	127
5	Intrinsic evolutionary constraints on protease structure, enzyme acylation, and the identity of the catalytic triad. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013, 110, E653-61.	7.1	121
6	Catalytic iron-carbene intermediate revealed in a cytochrome <i>c</i> carbene transferase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 7308-7313.	7.1	95
7	Consecutive radical <i>S</i> -adenosylmethionine methylations form the ethyl side chain in thienamycin biosynthesis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 10354-10358.	7.1	77
8	Synthesis of β -Branched Tryptophan Analogues Using an Engineered Subunit of Tryptophan Synthase. <i>Journal of the American Chemical Society</i> , 2016, 138, 8388-8391.	13.7	73
9	Directed Evolution Mimics Allosteric Activation by Stepwise Tuning of the Conformational Ensemble. <i>Journal of the American Chemical Society</i> , 2018, 140, 7256-7266.	13.7	73
10	A Panel of TrpB Biocatalysts Derived from Tryptophan Synthase through the Transfer of Mutations that Mimic Allosteric Activation. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 11577-11581.	13.8	59
11	Engineered Biosynthesis of β -Alkyl Tryptophan Analogues. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 14764-14768.	13.8	53
12	Structural Adaptability Facilitates Histidine Heme Ligation in a Cytochrome P450. <i>Journal of the American Chemical Society</i> , 2015, 137, 13861-13865.	13.7	31
13	<i>S</i> -Threonine Transaldolase Activity Is Enabled by a Persistent Catalytic Intermediate. <i>ACS Chemical Biology</i> , 2021, 16, 86-95.	3.4	30
14	Biocatalytic synthesis of non-standard amino acids by a decarboxylative aldol reaction. <i>Nature Catalysis</i> , 2022, 5, 136-143.	34.4	30
15	Site-Selective Deuteration of Amino Acids through Dual-Protein Catalysis. <i>Journal of the American Chemical Society</i> , 2022, 144, 7327-7336.	13.7	22
16	Insights into cis-autoproteolysis reveal a reactive state formed through conformational rearrangement. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 2308-2313.	7.1	21
17	Cofactor specificity motifs and the induced fit mechanism in class I ketol-acid reductoisomerases. <i>Biochemical Journal</i> , 2015, 468, 475-484.	3.7	21
18	Tryptophan Synthase Uses an Atypical Mechanism To Achieve Substrate Specificity. <i>Biochemistry</i> , 2016, 55, 7043-7046.	2.5	20

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19	Facile in Vitro Biocatalytic Production of Diverse Tryptamines. <i>ChemBioChem</i> , 2019, 20, 1939-1944.	2.6	17
20	Engineered Biosynthesis of β -Alkyl Tryptophan Analogues. <i>Angewandte Chemie</i> , 2018, 130, 14980-14984.	2.0	16
21	Structure of a bound peptide phosphonate reveals the mechanism of nocardicin bifunctional thioesterase epimerase-hydrolase half-reactions. <i>Nature Communications</i> , 2019, 10, 3868.	12.8	16
22	A Panel of TrpB Biocatalysts Derived from Tryptophan Synthase through the Transfer of Mutations that Mimic Allosteric Activation. <i>Angewandte Chemie</i> , 2016, 128, 11749-11753.	2.0	14
23	Scalable and Selective β -Hydroxy- α -Amino Acid Synthesis Catalyzed by Promiscuous <i>l</i> -Threonine Transaldolase ObiH. <i>ChemBioChem</i> , 2022, 23, e202100577.	2.6	12
24	De novo biosynthesis of a nonnatural cobalt porphyrin cofactor in <i>E. coli</i> and incorporation into hemoproteins. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	11
25	Asymmetric Alkylation of Ketones Catalyzed by Engineered TrpB. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 21412-21417.	13.8	11
26	Autoproteolytic Activation of ThnT Results in Structural Reorganization Necessary for Substrate Binding and Catalysis. <i>Journal of Molecular Biology</i> , 2012, 422, 508-518.	4.2	10
27	Modular control of <i>l</i> -tryptophan isotopic substitution <i>via</i> an efficient biosynthetic cascade. <i>Organic and Biomolecular Chemistry</i> , 2020, 18, 4189-4192.	2.8	7
28	Artificial domain duplication replicates evolutionary history of ketolâ€acid reductoisomerases. <i>Protein Science</i> , 2016, 25, 1241-1248.	7.6	4
29	Student-Led Climate Assessment Promotes a Healthier Graduate School Environment. <i>Journal of Chemical Education</i> , 2020, 97, 643-650.	2.3	3
30	Asymmetric Alkylation of Ketones Catalyzed by Engineered TrpB. <i>Angewandte Chemie</i> , 2021, 133, 21582-21587.	2.0	2
31	Investigation of β -Substitution Activity of <i>O</i> -Acetylserine Sulfhydrylase from <i>Citrullus vulgaris</i> . <i>ChemBioChem</i> , 2022, 23, .	2.6	2
32	Exploring the Role of Conformational Heterogeneity in cis-Autoproteolytic Activation of ThnT. <i>Biochemistry</i> , 2014, 53, 4273-4281.	2.5	1