

Christopher C R Allen

List of Publications by Year in descending order

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73
papers

2,350
citations

236925

25
h-index

223800

46
g-index

74
all docs

74
docs citations

74
times ranked

2283
citing authors

#	ARTICLE	IF	CITATIONS
1	Biodegradation and Rhodococcus "masters of catabolic versatility. Current Opinion in Biotechnology, 2005, 16, 282-290.	6.6	373
2	Application of α -Transaminases in the Pharmaceutical Industry. Chemical Reviews, 2018, 118, 349-367.	47.7	267
3	Purification and Characterization of a Novel Naphthalene Dioxygenase from <i>Rhodococcus</i> sp. Strain NCIMB12038. Journal of Bacteriology, 1999, 181, 6200-6204.	2.2	110
4	Metagenomic Characterisation of the Viral Community of Lough Neagh, the Largest Freshwater Lake in Ireland. PLoS ONE, 2016, 11, e0150361.	2.5	87
5	Biodegradation by Members of the Genus Rhodococcus: Biochemistry, Physiology, and Genetic Adaptation. Advances in Applied Microbiology, 2006, 59, 1-29.	2.4	85
6	Enantioselective bacterial biotransformation routes to cis-diol metabolites of monosubstituted benzenes, naphthalene and benzocycloalkenes of either absolute configuration. Journal of the Chemical Society Chemical Communications, 1995, , 117.	2.0	73
7	Web-Type Evolution of Rhodococcus Gene Clusters Associated with Utilization of Naphthalene. Applied and Environmental Microbiology, 2005, 71, 1754-1764.	3.1	73
8	bis-cis-Dihydrodiols: A New Class of Metabolites Resulting from Biphenyl Dioxygenase-Catalyzed Sequential Asymmetric cis-Dihydroxylation of Polycyclic Arenes and Heteroarenes. Journal of Organic Chemistry, 1999, 64, 4005-4011.	3.2	59
9	Toluene and naphthalene dioxygenase-catalysed sulfoxidation of alkyl aryl sulfides. Journal of the Chemical Society Perkin Transactions 1, 1998, , 1929-1934.	0.9	57
10	Chemoenzymatic Synthesis of Carbasugars (+)-Pericosines \sim C from Diverse Aromatic cis-Dihydrodiol Precursors. Organic Letters, 2010, 12, 2206-2209.	4.6	53
11	Structure and Increased Thermostability of Rhodococcus sp. Naphthalene 1,2-Dioxygenase. Journal of Bacteriology, 2005, 187, 7222-7231.	2.2	51
12	Raman Deuterium Isotope Probing Reveals Microbial Metabolism at the Single-Cell Level. Analytical Chemistry, 2017, 89, 13305-13312.	6.5	51
13	Azaarene cis-dihydrodiol-derived 2,2'-bipyridine ligands for asymmetric allylic oxidation and cyclopropanation. Chemical Communications, 2008, , 5535.	4.1	50
14	Rational Design of a (S)-Selective-Transaminase for Asymmetric Synthesis of (1S)-1-(1,1'-biphenyl-2-yl)ethanamine. ACS Catalysis, 2016, 6, 7749-7759.	11.2	46
15	Dioxygenase-catalysed oxidation of alkylaryl sulfides: sulfoxidation versus cis-dihydrodiol formation. Organic and Biomolecular Chemistry, 2004, 2, 2530.	2.8	41
16	Chemoenzymatic synthesis of carbasugars from iodobenzene. Organic and Biomolecular Chemistry, 2005, 3, 1953.	2.8	38
17	Dioxygenase-catalysed oxidation of monosubstituted thiophenes: sulfoxidation versus dihydrodiol formation. Organic and Biomolecular Chemistry, 2003, 1, 984-994.	2.8	34
18	Bacterial dioxygenase- and monooxygenase-catalysed sulfoxidation of benzo[b]thiophenes. Organic and Biomolecular Chemistry, 2012, 10, 782-790.	2.8	33

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19	Tracking the Fate of Microbially Sequestered Carbon Dioxide in Soil Organic Matter. <i>Environmental Science & Technology</i> , 2013, 47, 5128-5137.	10.0	31
20	Regioselectivity and stereoselectivity of dioxygenase catalysed cis-dihydroxylation of mono- and tri-cyclic azaarene substrates. <i>Organic and Biomolecular Chemistry</i> , 2008, 6, 3957.	2.8	30
21	Tandem enzyme-catalysed oxidations of alkyl phenyl sulfides and alkyl benzenes: enantiocomplementary routes to chiral phenols. <i>Chemical Communications</i> , 2002, , 1914-1915.	4.1	29
22	Stereoselective reductase-catalysed deoxygenation of sulfoxides in aerobic and anaerobic bacteria. <i>Organic and Biomolecular Chemistry</i> , 2004, 2, 554.	2.8	29
23	Genomes of ϕ KMV-like viruses of <i>Pseudomonas aeruginosa</i> contain localized single-strand interruptions. <i>Virology</i> , 2009, 391, 1-4.	2.4	27
24	Enantioselective dioxygenase-catalysed formation and thermal racemisation of chiral thiophene sulfoxides. <i>Chemical Communications</i> , 1996, , 2363.	4.1	26
25	Analysis of transduction in wastewater bacterial populations by targeting the phage-derived 16S rRNA gene sequences. <i>FEMS Microbiology Ecology</i> , 2011, 76, 100-108.	2.7	26
26	syn-Benzene dioxides: chemoenzymatic synthesis from 2,3-cis-dihydrodiol derivatives of monosubstituted benzenes and their application in the synthesis of regioisomeric 1,2- and 3,4-cis-dihydrodiols and 1,4-dioxocins. <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 2267.	2.8	25
27	Dioxygenase-catalysed dihydroxylation of arene cis-dihydrodiols and acetonide derivatives: a new approach to the synthesis of enantiopure tetraoxygenated bioproducts from arenes. <i>Chemical Communications</i> , 2006, , 4934.	4.1	24
28	Chemoenzymatic synthesis of the trans-dihydrodiol isomers of monosubstituted benzenes via anti-benzene dioxides. <i>Organic and Biomolecular Chemistry</i> , 2006, 4, 2208.	2.8	24
29	New families of enantiopure cyclohexenone cis-diol, o-quinol dimer and hydrate metabolites from dioxygenase-catalysed dihydroxylation of phenols. <i>Chemical Communications</i> , 2009, , 3633.	4.1	23
30	Genomes and Plasmids in <i>Rhodococcus</i> . <i>Microbiology Monographs</i> , 2010, , 73-90.	0.6	22
31	Chemoenzymatic formal synthesis of (âˆ-) and (+)-epibatidine. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 2774.	2.8	22
32	Dioxygenase-catalysed cis-dihydroxylation of meta-substituted phenols to yield cyclohexenone cis-diol and derived enantiopure cis-triol metabolites. <i>Organic and Biomolecular Chemistry</i> , 2011, 9, 1479.	2.8	21
33	cis-Dihydrodiol, arene oxide and phenol metabolites of dictamnine: key intermediates in the biodegradation and biosynthesis of furoquinoline alkaloids. <i>Chemical Communications</i> , 2005, , 3989.	4.1	20
34	Multiple site dioxygenase-catalysed cis-dihydroxylation of polycyclic azaarenes to yield a new class of bis-cis-diol metabolites. <i>Chemical Communications</i> , 1999, , 1201-1202.	4.1	19
35	Chemoenzymatic synthesis of the carbasugars carba- β -l-galactopyranose, carba- β -l-talopyranose and carba- β -l-talopyranose from methyl benzoate. <i>Organic and Biomolecular Chemistry</i> , 2010, 8, 1415.	2.8	19
36	Chemoenzymatic synthesis of trans-dihydrodiol derivatives of monosubstituted benzenes from the corresponding cis-dihydrodiol isomers. <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 514.	2.8	18

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37	Analysis of viral and bacterial communities in groundwater associated with contaminated land. <i>Science of the Total Environment</i> , 2019, 656, 1413-1426.	8.0	18
38	Regio- and stereo-selective dioxygenase-catalysed cis-dihydroxylation of fjord-region polycyclic arenes. <i>Journal of the Chemical Society, Perkin Transactions 1</i> , 2001, , 1264-1269.	1.3	17
39	Chemoenzymatic synthesis of a mixed phosphine-phosphine oxide catalyst and its application to asymmetric allylation of aldehydes and hydrogenation of alkenes. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 1388.	2.8	16
40	Isolation and Characterisation of a Halotolerant α -Transaminase from a Triassic Period Salt Mine and Its Application to Biocatalysis. <i>ChemistrySelect</i> , 2017, 2, 9783-9791.	1.5	16
41	The occurrence of PAHs and faecal sterols in Dublin Bay and their influence on sedimentary microbial communities. <i>Marine Pollution Bulletin</i> , 2016, 106, 215-224.	5.0	15
42	Characterisation of a solvent-tolerant haloarchaeal (R)-selective transaminase isolated from a Triassic period salt mine. <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 5727-5737.	3.6	15
43	Effect of soil horizon stratigraphy on the microbial ecology of alpine paleosols. <i>Science of the Total Environment</i> , 2019, 657, 1183-1193.	8.0	15
44	Biphenyl dioxygenase-catalysed cis-dihydroxylation of tricyclic azaarenes: chemoenzymatic synthesis of arene oxide metabolites and furoquinoline alkaloids. <i>RSC Advances</i> , 2013, 3, 10944.	3.6	14
45	The distribution of novel bacterial laccases in alpine paleosols is directly related to soil stratigraphy. <i>Science of the Total Environment</i> , 2019, 671, 19-27.	8.0	14
46	Toluene Dioxygenase-Catalyzed Synthesis and Reactions of <i>cis</i> -Diol Metabolites Derived from 2- and 3-Methoxyphenols. <i>Journal of Organic Chemistry</i> , 2015, 80, 3429-3439.	3.2	13
47	A Microbial Link to Weathering of Postglacial Rocks and Sediments, Mount Viso Area, Western Alps, Demonstrated through Analysis of a Soil/Paleosol Bio/Chronosequence. <i>Journal of Geology</i> , 2016, 124, 149-169.	1.4	13
48	Toluene dioxygenase-catalyzed cis-dihydroxylation of benzo[b]thiophenes and benzo[b]furans: synthesis of benzo[b]thiophene 2,3-oxide. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 7292.	2.8	12
49	Engineering Peptides to Catalyze and Control Stabilization of Gas Hydrates: Learning From Nature. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 5068-5075.	4.6	11
50	Extent and Variation of Phage-Borne Bacterial 16S rRNA Gene Sequences in Wastewater Environments. <i>Applied and Environmental Microbiology</i> , 2011, 77, 5529-5532.	3.1	10
51	Structure, stereochemistry and synthesis of enantiopure cyclohexenone cis-diol bacterial metabolites derived from phenols. <i>Organic and Biomolecular Chemistry</i> , 2012, 10, 6217.	2.8	10
52	Characterization of a novel α -transaminase from a Triassic salt mine metagenome. <i>Biochemical and Biophysical Research Communications</i> , 2018, 503, 2936-2942.	2.1	9
53	Chemoenzymatic Synthesis of (α)-Ribisins A and B from Dibenzofuran. <i>Journal of Organic Chemistry</i> , 2019, 84, 15165-15172.	3.2	9
54	Crystallization and preliminary X-ray diffraction analysis of naphthalene dioxygenase from <i>Rhodococcus</i> sp. strain NCIMB 12038. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2002, 58, 2173-2174.	2.5	8

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55	Enzyme-catalysed oxidation of 1,2-disulfides to yield chiral thiosulfinate, sulfoxide and cis-dihydrodiol metabolites. <i>RSC Advances</i> , 2014, 4, 27607-27619.	3.6	8
56	Arene <i>cis</i> -Diol Dehydrogenase-Catalysed Regio- and Stereoselective Oxidation of Arene-, Cycloalkane- and Cycloalkene- <i>cis</i> -diols to Yield Catechols and Chiral β -Ketols. <i>Advanced Synthesis and Catalysis</i> , 2015, 357, 1881-1894.	4.3	8
57	Enzyme-Catalysed Synthesis of Cyclohexane-1-one <i>cis</i> -Diols from Substituted Phenols, Anilines and Derived 4-Hydroxycyclohexanones. <i>Advanced Synthesis and Catalysis</i> , 2017, 359, 4002-4014.	4.3	8
58	Large perturbations in CO ₂ flux and subsequent chemosynthesis are induced in agricultural soil by the addition of elemental sulfur. <i>Scientific Reports</i> , 2017, 7, 4732.	3.3	8
59	Magnetic-field effects on methane-hydrate kinetics and potential geophysical implications: Insights from non-equilibrium molecular dynamics. <i>Science of the Total Environment</i> , 2019, 661, 664-669.	8.0	8
60	Tandem enzyme-catalysed reduction/cis-dihydroxylation of 2,2,2-trifluoroacetophenone: chemoenzymatic routes to new enantiopure phenol and benzylic alcohol reagents. <i>Journal of Chemical Technology and Biotechnology</i> , 2007, 82, 1072-1081.	3.2	7
61	Pf16 and phiPMW: Expanding the realm of <i>Pseudomonas putida</i> bacteriophages. <i>PLoS ONE</i> , 2017, 12, e0184307.	2.5	7
62	<i>Cis</i> -Dihydroxylation of Tricyclic Arenes and Heteroarenes Catalyzed by Toluene Dioxygenase: A Molecular Docking Study and Experimental Validation. <i>Advanced Synthesis and Catalysis</i> , 2019, 361, 2526.	4.3	7
63	Chemoenzymatic synthesis of monocyclic arene oxides and arene hydrates from substituted benzene substrates. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 3020.	2.8	6
64	Magnetic-Field Manipulation of Naturally Occurring Microbial Chiral Peptides to Regulate Gas-Hydrate Formation. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9079-9085.	4.6	6
65	Toluene Dioxygenase-Catalyzed <i>cis</i> -Dihydroxylation of Quinolines: A Molecular Docking Study and Chemoenzymatic Synthesis of Quinoline Arene Oxides. <i>Frontiers in Bioengineering and Biotechnology</i> , 2020, 8, 619175.	4.1	6
66	Spectroscopic Characterisation of the Naphthalene Dioxygenase from <i>Rhodococcus</i> sp. Strain NCIMB12038. <i>International Journal of Molecular Sciences</i> , 2019, 20, 3402.	4.1	5
67	Microbial Stabilization and Kinetic Enhancement of Marine Methane Hydrates. <i>Geomicrobiology Journal</i> , 2020, 37, 279-286.	2.0	5
68	Monooxygenase- and Dioxygenase-Catalyzed Oxidative Dearomatization of Thiophenes by Sulfoxidation, <i>cis</i> -Dihydroxylation and Epoxidation. <i>International Journal of Molecular Sciences</i> , 2022, 23, 909.	4.1	4
69	Enantiopurity and absolute configuration determination of arene <i>cis</i> -dihydrodiol metabolites and derivatives using chiral boronic acids. <i>Chirality</i> , 2018, 30, 5-18.	2.6	3
70	Chemoenzymatic synthesis of enantiopure hydroxy sulfoxides derived from substituted arenes. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 2651-2664.	2.8	2
71	Draft Genome Sequence of <i>Rhodococcus</i> sp. Strain NCIMB 12038, a Naphthalene-Degrading Bacterium. <i>Genome Announcements</i> , 2018, 6, .	0.8	1
72	Revealing the global importance of isoprene metabolism by marine bacteria. <i>Environmental Microbiology</i> , 2017, 19, 3413-3414.	3.8	0

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73	Expression, purification and crystallization of a novel metagenome-derived salicylaldehyde dehydrogenase from Alpine soil. Acta Crystallographica Section F, Structural Biology Communications, 2022, 78, 161-169.	0.8	0