Karine Auclair

List of Publications by Year
in descending order

60 papers	1,952 citations	304368 22 h-index	276539 41 g-index
74 all docs	74 docs citations	74 times ranked	2432 citing authors

#	Article	IF	Citations
1	Itaconate: an antimicrobial metabolite of macrophages. Canadian Journal of Chemistry, 2022, 100, 104-113.	0.6	3
2	Mechanoenzymatic Reactions Involving Polymeric Substrates or Products. ChemSusChem, 2022, 15, .	3.6	15
3	Exploring Heteroaromatic Rings as a Replacement for the Labile Amide of Antiplasmodial Pantothenamides. Journal of Medicinal Chemistry, 2021, 64, 4478-4497.	2.9	8
4	Combining Small-Molecule Bioconjugation and Hydrogenâ€“Deuterium Exchange Mass Spectrometry (HDX-MS) to Expose Allostery: the Case of Human Cytochrome P450 3A4. ACS Chemical Biology, 2021, 16, 882-890.	1.6	2
5	Effect of pH on the antimicrobial activity of the macrophage metabolite itaconate. Microbiology (United Kingdom), 2021, 167, .	0.7	12
6	Structural Dynamics of Cytochrome P450 3A4 in the Presence of Substrates and Cytochrome P450 Reductase. Biochemistry, 2021, 60, 2259-2271.	1.2	6
7	Enzymatic depolymerization of highly crystalline polyethylene terephthalate enabled in moist-solid reaction mixtures. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	62
8	Ammonium Chlorideâ€Promoted Rapid Synthesis of Monosubstituted Ureas under Microwave Irradiation. European Journal of Organic Chemistry, 2021, 2021, 5135.	1.2	3
9	Towards Controlling the Reactivity of Enzymes in Mechanochemistry: Inert Surfaces Protect Î²â€Glucosidase Activity During Ball Milling. ChemSusChem, 2020, 13, 106-110.	3.6	29
10	Mechanoenzymatic Transformations in the Absence of Bulk Water: A More Natural Way of Using Enzymes. ChemBioChem, 2020, 21, 742-758.	1.3	38
11	Comparative evaluation of itaconate and its derivatives reveals divergent inflammasome and type I interferon regulation in macrophages. Nature Metabolism, 2020, 2, 594-602.	5.1	163
12	Rapid mechanoenzymatic saccharification of lignocellulosic biomass without bulk water or chemical pre-treatment. Green Chemistry, 2020, 22, 3877-3884.	4.6	21
13	Inhibition and Activation of Kinases by Reaction Products: A Reporter-Free Assay. Analytical Chemistry, 2019, 91, 11803-11811.	3.2	9
14	The coenzyme A biosynthetic pathway: A new tool for prodrug bioactivation. Archives of Biochemistry and Biophysics, 2019, 672, 108069.	1.4	6
15	Mechanoenzymatic Breakdown of Chitinous Material to Nâ€Acetylglucosamine: The Benefits of a Solventless Environment. ChemSusChem, 2019, 12, 3481-3490.	3.6	47
16	A Covalently Attached Progesterone Molecule Outcompetes the Binding of Free Progesterone at an Allosteric Site of Cytochrome P450 3A4. Bioconjugate Chemistry, 2019, 30, 1629-1635.	1.8	13
17	Efficient Enzymatic Hydrolysis of Biomass Hemicellulose in the Absence of Bulk Water. Molecules, 2019, 24, 4206.	1.7	35
18	Electrophilic properties of itaconate and derivatives regulate theÂIÎºBÎ¶â€“ATF3 inflammatory axis. Nature, 2018, 556, 501-504.	13.7	438

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19	Solventâ€Free Enzyme Activity: Quick, Highâ€Yielding Mechanoenzymatic Hydrolysis of Cellulose into Glucose. Angewandte Chemie - International Edition, 2018, 57, 2621-2624.	7.2	72
20	Solventâ€Free Enzyme Activity: Quick, Highâ€Yielding Mechanoenzymatic Hydrolysis of Cellulose into Glucose. Angewandte Chemie, 2018, 130, 2651-2654.	1.6	34
21	Use of bioconjugation with cytochrome P450 enzymes. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2018, 1866, 32-51.	1.1	15
22	Probing the ligand preferences of the three types of bacterial pantothenate kinase. Bioorganic and Medicinal Chemistry, 2018, 26, 5896-5902.	1.4	6
23	Structureâ€“Activity Relationships of Antiplasmodial Pantothenamide Analogues Reveal a New Way by Which Triazoles Mimic Amide Bonds. ChemMedChem, 2018, 13, 2677-2683.	1.6	12
24	Steroid bioconjugation to a CYP3A4 allosteric site and its effect on substrate binding and coupling efficiency. Archives of Biochemistry and Biophysics, 2018, 653, 90-96.	1.4	8
25	Mutations in the pantothenate kinase of Plasmodium falciparum confer diverse sensitivity profiles to antiplasmodial pantothenate analogues. PLoS Pathogens, 2018, 14, e1006918.	2.1	24
26	Cellular Studies of an Aminoglycoside Potentiator Reveal a New Inhibitor of Aminoglycoside Resistance. ChemBioChem, 2018, 19, 2107-2113.	1.3	6
27	Active Site Crowding of Cytochrome P450 3A4 as a Strategy To Alter Its Selectivity. ChemBioChem, 2017, 18, 248-252.	1.3	13
28	Allosteric Activation of Cytochrome P450 3A4 via Progesterone Bioconjugation. Bioconjugate Chemistry, 2017, 28, 885-889.	1.8	38
29	Enzymes Beat Chemists in the Formation of an Unnatural Bond. ChemBioChem, 2017, 18, 432-434.	1.3	1
30	Regioselective Epoxidations by Cytochrome P450 3A4 Using a Theobromine Chemical Auxiliary to Predictably Produce Nâ€Protected Î²â€•or Î³â€Amino Epoxides. Advanced Synthesis and Catalysis, 2017, 359, 3983-3989.	2.1	15
31	A cross-metathesis approach to novel pantothenamide derivatives. Beilstein Journal of Organic Chemistry, 2016, 12, 963-968.	1.3	13
32	Small Molecule Restores Itaconate Sensitivity in Salmonella enterica: A Potential New Approach to Treating Bacterial Infections. ChemBioChem, 2016, 17, 1513-1517.	1.3	17
33	Triazole Substitution of a Labile Amide Bond Stabilizes Pantothenamides and Improves Their Antiplasmodial Potency. Antimicrobial Agents and Chemotherapy, 2016, 60, 7146-7152.	1.4	30
34	3-Oxo-hexahydro-1H-isoindole-4-carboxylic Acid as a Drug Chiral Bicyclic Scaffold: Structure-Based Design and Preparation of Conformationally Constrained Covalent and Noncovalent Prolyl Oligopeptidase Inhibitors. Journal of Medicinal Chemistry, 2016, 59, 4221-4234.	2.9	21
35	Metabolic Instability of Cyanothiazolidineâ€Based Prolyl Oligopeptidase Inhibitors: a Structural Assignment Challenge and Potential Medicinal Chemistry Implications. ChemMedChem, 2015, 10, 1174-1183.	1.6	9
36	Use of Chemical Auxiliaries to Control P450 Enzymes for Predictable Oxidations at Unactivated C-H Bonds of Substrates. Advances in Experimental Medicine and Biology, 2015, 851, 209-228.	0.8	7

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37	Global ITC fitting methods in studies of protein allostery. Methods, 2015, 76, 149-161.	1.9	36
38	Exploring structural motifs necessary for substrate binding in the active site of Escherichia coli pantothenate kinase. Bioorganic and Medicinal Chemistry, 2014, 22, 3083-3090.	1.4	14
39	Substrate-dependent switching of the allosteric binding mechanism of a dimeric enzyme. Nature Chemical Biology, 2014, 10, 937-942.	3.9	23
40	Controlling substrate specificity and product regio- and stereo-selectivities of P450 enzymes without mutagenesis. Bioorganic and Medicinal Chemistry, 2014, 22, 5547-5554.	1.4	24
41	Stereochemical modification of geminal dialkyl substituents on pantothenamides alters antimicrobial activity. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 3274-3277.	1.0	17
42	Type II Ligands as Chemical Auxiliaries To Favor Enzymatic Transformations by P450 2E1. ChemBioChem, 2012, 13, 2527-2536.	1.3	12
43	Dual use of a chemical auxiliary: molecularly imprinted polymers for the selective recovery of products from biocatalytic reaction mixtures. Green Chemistry, 2012, 14, 2206.	4.6	13
44	Site-Specific Fluorescent Labeling and Oriented Immobilization of a Triple Mutant of CYP3A4 via C64. Bioconjugate Chemistry, 2012, 23, 826-836.	1.8	17
45	Inhibitors of Aminoglycoside Resistance Activated in Cells. ACS Chemical Biology, 2012, 7, 470-475.	1.6	23
46	An Overview of Molecular Spectroscopic Studies on Theobromine and Related Alkaloids. Applied Spectroscopy Reviews, 2012, 47, 163-179.	3.4	10
47	Predictable Stereoselective and Chemoselective Hydroxylations and Epoxidations with P450 3A4. Journal of the American Chemical Society, 2011, 133, 7853-7858.	6.6	47
48	Synthesis of 4â€²-aminopantetheine and derivatives to probe aminoglycoside N-6â€²-acetyltransferase. Organic and Biomolecular Chemistry, 2011, 9, 1538.	1.5	7
49	Inhibition of Aminoglycosideâ€Deactivating Enzymes APH(3â€²)â€IIIa and AAC(6â€²)â€Ii by Amphiphilic Paromomycin O2â€²â€²â€Ether Analogues. ChemMedChem, 2011, 6, 1961-1966.	1.6	32
50	Inside Cover: Inhibition of Aminoglycoside-Deactivating Enzymes APH(3â€²)-IIIa and AAC(6â€²)-Ii by Amphiphilic Paromomycin O2â€²â€²-Ether Analogues (ChemMedChem 11/2011). ChemMedChem, 2011, 6, 1942-1942.	1.6	0
51	Geminal dialkyl derivatives of N-substituted pantothenamides: Synthesis and antibacterial activity. Bioorganic and Medicinal Chemistry, 2011, 19, 2696-2706.	1.4	20
52	Synthesis of a Phosphonateâ€Linked Aminoglycosideâ€“Coenzymeâ€…A Bisubstrate and Use in Mechanistic Studies of an Enzyme Involved in Aminoglycoside Resistance. Chemistry - A European Journal, 2009, 15, 2064-2070.	1.7	31
53	Synthesis and use of sulfonamide-, sulfoxide-, or sulfone-containing aminoglycosideâ€“CoA bisubstrates as mechanistic probes for aminoglycoside N-6â€²-acetyltransferase. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 5518-5522.	1.0	32
54	Kinetic and Structural Analysis of Bisubstrate Inhibition of the Salmonella enterica Aminoglycoside 6â€˜-N-Acetyltransferase[,]. Biochemistry, 2008, 47, 579-584.	1.2	39

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55	The use of aminoglycoside derivatives to study the mechanism of aminoglycoside 6â€²-N-acetyltransferase and the role of 6â€²-NH2 in antibacterial activity. Bioorganic and Medicinal Chemistry, 2007, 15, 2944-2951.	1.4	15
56	Progress towards the easier use of P450 enzymes. Molecular BioSystems, 2006, 2, 462.	2.9	80
57	Synthesis and Structureâ^'Activity Relationships of Truncated Bisubstrate Inhibitors of Aminoglycoside 6â€˜-N-Acetyltransferases. Journal of Medicinal Chemistry, 2006, 49, 5273-5281.	2.9	74
58	Replacement of Natural Cofactors by Selected Hydrogen Peroxide Donors or Organic Peroxides Results in Improved Activity for CYP3A4 and CYP2D6. ChemBioChem, 2006, 7, 916-919.	1.3	48
59	Highly Efficient P(III)-to-P(V) Oxidative Rearrangement. Phosphorus, Sulfur and Silicon and the Related Elements, 2006, 181, 159-165.	0.8	11
60	Regio- and Chemoselective 6â€²-N-Derivatization of Aminoglycosides: Bisubstrate Inhibitors as Probes To Study Aminoglycoside 6â€²-N-Acetyltransferases. Angewandte Chemie - International Edition, 2005, 44, 6859-6862.	7.2	54