

Alan Armstrong

List of Publications by Year in descending order

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120
papers

5,417
citations

76196

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91712

69
g-index

160
all docs

160
docs citations

160
times ranked

4441
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermodynamic control of asymmetric amplification in amino acid catalysis. <i>Nature</i> , 2006, 441, 621-623.	13.7	370
2	Direct Azole Amination: C-H Functionalization as a New Approach to Biologically Important Heterocycles. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 2282-2285.	7.2	269
3	Clarification of the Role of Water in Proline-Mediated Aldol Reactions. <i>Journal of the American Chemical Society</i> , 2007, 129, 15100-15101.	6.6	251
4	A new method for the preparation of tertiary butyl ethers and esters. <i>Tetrahedron Letters</i> , 1988, 29, 2483-2486.	0.7	178
5	The Flow™s the Thing Or Is It? Assessing the Merits of Homogeneous Reactions in Flask and Flow. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 2478-2485.	7.2	175
6	The Houk List transition states for organocatalytic mechanisms revisited. <i>Chemical Science</i> , 2014, 5, 2057-2071.	3.7	154
7	Mechanistic Rationalization of Organocatalyzed Conjugate Addition of Linear Aldehydes to Nitro-olefins. <i>Journal of the American Chemical Society</i> , 2011, 133, 8822-8825.	6.6	145
8	Computer-aided molecular design of solvents for accelerated reaction kinetics. <i>Nature Chemistry</i> , 2013, 5, 952-957.	6.6	141
9	Curtin Hammett Paradigm for Stereocontrol in Organocatalysis by Diarylprolinol Ether Catalysts. <i>Journal of the American Chemical Society</i> , 2012, 134, 6741-6750.	6.6	139
10	Catalytic enantioselective epoxidation of alkenes with a tropinone-derived chiral ketone. <i>Chemical Communications</i> , 1998, , 621-622.	2.2	115
11	Structure of eukaryotic purine/H ⁺ symporter UapA suggests a role for homodimerization in transport activity. <i>Nature Communications</i> , 2016, 7, 11336.	5.8	108
12	Total synthesis of the anthelmintic macrolide avermectin B1a. <i>Journal of the Chemical Society Perkin Transactions 1</i> , 1991, , 667-692.	0.9	106
13	Unusual Reversal of Enantioselectivity in the Proline-Mediated α -Amination of Aldehydes Induced by Tertiary Amine Additives. <i>Journal of the American Chemical Society</i> , 2010, 132, 7598-7599.	6.6	103
14	Probing the Active Catalyst in Product-Accelerated Proline-Mediated Reactions. <i>Journal of the American Chemical Society</i> , 2004, 126, 16312-16313.	6.6	99
15	Amine-Promoted, Organocatalytic Aziridination of Enones. <i>Organic Letters</i> , 2007, 9, 351-353.	2.4	98
16	A highly convergent total synthesis of the spiroacetal macrolide (+)-milbemycin ²¹ . <i>Tetrahedron</i> , 1989, 45, 7161-7194.	1.0	94
17	Enantioselective Epoxidation of Alkenes Catalyzed by 2-Fluoro-N-Carboethoxytropinone and Related Tropinone Derivatives. <i>Journal of Organic Chemistry</i> , 2002, 67, 8610-8617.	1.7	85
18	Oxaziridine-Mediated Amination of Primary Amines: Scope and Application to a One-Pot Pyrazole Synthesis. <i>Organic Letters</i> , 2005, 7, 713-716.	2.4	83

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19	Explaining Anomalies in Enamine Catalysis: "Downstream Species" as a New Paradigm for Stereocontrol. <i>Accounts of Chemical Research</i> , 2016, 49, 214-222.	7.6	75
20	Kinetic and mechanistic studies of proline-mediated direct intermolecular aldol reactions. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 3934-3937.	1.0	73
21	Stereocontrolled Synthesis of 3-(trans-2-Aminocyclopropyl)alanine, a Key Component of Belactosin A. <i>Organic Letters</i> , 2003, 5, 2331-2334.	2.4	72
22	Exocyclic iminium salts as catalysts for alkene epoxidation by Oxone®. <i>Tetrahedron</i> , 1999, 55, 2341-2352.	1.0	64
23	High-Throughput Kinetic Analysis for Target-Directed Covalent Ligand Discovery. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 5257-5261.	7.2	59
24	Transition State Stereoelectronics in Alkene Epoxidations by Fluorinated Dioxiranes. <i>Journal of the American Chemical Society</i> , 2000, 122, 6297-6298.	6.6	58
25	Recent synthetic studies on the zaragozic acids (squalestatins). <i>Tetrahedron</i> , 2002, 58, 9321-9349.	1.0	58
26	Amine-Catalyzed Epoxidation of Alkenes: A New Mechanism for the Activation of Oxone. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 1460-1462.	7.2	58
27	(±)-Fluorotropinone Immobilized on Silica: A New Stereoselective Heterogeneous Catalyst for Epoxidation of Alkenes with Oxone. <i>Journal of Organic Chemistry</i> , 2003, 68, 3232-3237.	1.7	57
28	Kinetic Rationalization of Nonlinear Effects in Asymmetric Catalysis Based on Phase Behavior. <i>Angewandte Chemie - International Edition</i> , 2006, 45, 7989-7992.	7.2	56
29	Enantioselective Synthesis of Allenamides via Sulfimide [2,3]-Sigmatropic Rearrangement. <i>Organic Letters</i> , 2009, 11, 1547-1550.	2.4	55
30	Total Synthesis of (+)-Zaragozic Acid C. <i>Journal of Organic Chemistry</i> , 2000, 65, 7020-7032.	1.7	54
31	Total synthesis of (+)-belactosin A. <i>Chemical Communications</i> , 2004, , 510-511.	2.2	53
32	Aza-Prins-Pinacol Approach to 7-Azabicyclo[2.2.1]heptanes: Syntheses of (±)-Epibatidine and (±)-Epiboxidine. <i>Journal of Organic Chemistry</i> , 2007, 72, 8019-8024.	1.7	53
33	Enamine Carboxylates as Stereodetermining Intermediates in Prolinate Catalysis. <i>Organic Letters</i> , 2011, 13, 5644-5647.	2.4	53
34	Constrained β^2 -Proline Analogues in Organocatalytic Aldol Reactions: The Influence of Acid Geometry. <i>Journal of Organic Chemistry</i> , 2009, 74, 5041-5048.	1.7	48
35	Exploiting Organocatalysis: Enantioselective Synthesis of Vinyl Glycines by Allylic Sulfimide [2,3]-Sigmatropic Rearrangement. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 5369-5372.	7.2	47
36	Alkene epoxidation catalyzed by bicyclo[3.2.1]octan-3-ones: effects of structural modifications on catalyst efficiency and epoxidation enantioselectivity. <i>Tetrahedron: Asymmetry</i> , 2000, 11, 2057-2061.	1.8	45

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37	Kinetic Template-Guided Tethering of Fragments. <i>ChemMedChem</i> , 2012, 7, 2082-2086.	1.6	45
38	Kinetic correlation between aldehyde/enamine stereoisomers in reactions between aldehydes with $\hat{\pm}$ -stereocenters and chiral pyrrolidine-based catalysts. <i>Chemical Science</i> , 2012, 3, 1273.	3.7	45
39	Pyrrolidine-Derived Iminium Salts as Catalysts for Alkene Epoxidation by Oxone [®] . <i>Synlett</i> , 1997, 1997, 1075-1076.	1.0	42
40	Catalytic asymmetric bromolactonization reactions using (DHQD)2PHAL-benzoic acid combinations. <i>Tetrahedron Letters</i> , 2013, 54, 7004-7008.	0.7	42
41	Asymmetric epoxidation catalyzed by esters of $\hat{\pm}$ -hydroxy-8-oxabicyclo[3.2.1]octan-3-one. <i>Tetrahedron: Asymmetry</i> , 2001, 12, 2779-2781.	1.8	41
42	Total synthesis of (+)-zaragozic acid C. <i>Tetrahedron Letters</i> , 1998, 39, 3337-3340.	0.7	39
43	Efficient amination of sulfides with a ketomalonate-derived oxaziridine: application to [2,3]-sigmatropic rearrangements of allylic sulfimides Electronic supplementary information (ESI) available: experimental details and characterisation data. See http://www.rsc.org/suppdata/cc/b2/b201791a/ . <i>Chemical Communications</i> , 2002, , 904-905.	2.2	38
44	A Coherent Mechanistic Rationale for Additive Effects and Autoinductive Behaviour in Proline-Mediated Reactions. <i>Advanced Synthesis and Catalysis</i> , 2009, 351, 2765-2769.	2.1	38
45	Exploitation of Antibiotic Resistance as a Novel Drug Target: Development of a $\hat{2}$ -Lactamase-Activated Antibacterial Prodrug. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 4411-4425.	2.9	38
46	A mechanistic rationalization of unusual kinetic behavior in proline-mediated C=O and C=N bond-forming reactions. <i>Chemical Communications</i> , 2006, , 4291-4293.	2.2	37
47	Synthetic studies on amphidinolides C and F: synthesis of the C18-C29 segment of amphidinolide F. <i>Tetrahedron Letters</i> , 2009, 50, 3325-3328.	0.7	37
48	$\hat{\pm}$ -Functionalised ketones as promoters of alkene epoxidation by Oxone [®] . <i>Tetrahedron</i> , 1999, 55, 11119-11126.	1.0	36
49	Rationalization of an Unusual Solvent-Induced Inversion of Enantiomeric Excess in Organocatalytic Selenylation of Aldehydes. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 8700-8704.	7.2	35
50	Oxaziridine-Mediated Amination of Branched Allylic Sulfides: % Stereospecific Formation of Allylic Amine Derivatives via [2,3]-Sigmatropic Rearrangement. <i>Journal of Organic Chemistry</i> , 2006, 71, 4028-4030.	1.7	34
51	Mechanistic Studies on the Copper-Catalyzed N-Arylation of Alkylamines Promoted by Organic Soluble Ionic Bases. <i>ACS Catalysis</i> , 2016, 6, 3965-3974.	5.5	34
52	Efficient nitrogen transfer from aldehyde-derived N-acyloxaziridines. <i>Tetrahedron Letters</i> , 2003, 44, 5335-5338.	0.7	33
53	Kinetic Profiling of Prolinate-Catalyzed $\hat{\pm}$ -Amination of Aldehydes. <i>Organic Letters</i> , 2011, 13, 4300-4303.	2.4	32
54	Enantioselective Synthesis of $\hat{\pm}$ -Alkyl, $\hat{\pm}$ -Vinyl Amino Acids via [2,3]-Sigmatropic Rearrangement of Selenimides. <i>Organic Letters</i> , 2011, 13, 1040-1043.	2.4	32

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55	Synthesis of the Bicyclo[4.4.1]decenone Core of CP-225,917 and CP-263,114. <i>Synlett</i> , 1998, 1998, 552-553.	1.0	31
56	Electrophilic amination of carbanions by N-carboxamido oxaziridines. <i>Tetrahedron Letters</i> , 2000, 41, 2247-2251.	0.7	31
57	A one-step synthesis of tetrahydropyranopyranones from carbonyl compounds. <i>Tetrahedron Letters</i> , 2001, 42, 4585-4587.	0.7	31
58	Diastereoselective Conjugate Addition of Cyanide to $\hat{1}\pm, \hat{1}^2$ -Unsaturated \hat{A} Oxazolidinones: Enantioselective Synthesis of ent-Pregabalin and Baclofen. <i>Synlett</i> , 2006, 2006, 1589-1591.	1.0	31
59	Amine-Promoted Synthesis of Vinyl Aziridines. <i>Journal of Organic Chemistry</i> , 2010, 75, 3499-3502.	1.7	30
60	A new class of chiral tetrahydropyran-4-one catalyst for asymmetric epoxidation of alkenes. <i>Tetrahedron</i> , 2006, 62, 257-263.	1.0	27
61	Synthesis, Characterisation and Reactivity of Copper(I) Amide Complexes and Studies on Their Role in the Modified Ullmann Amination Reaction. <i>Chemistry - A European Journal</i> , 2015, 21, 7179-7192.	1.7	27
62	Amination and [2,3]-sigmatropic rearrangement of propargylic sulfides using a ketomalonate-derived oxaziridine: synthesis of N-allenylsulfenimides. <i>Organic and Biomolecular Chemistry</i> , 2003, 1, 3142.	1.5	26
63	Synthetic studies on CP-225,917 and CP-263,114: concise synthesis of the bicyclic core using an intramolecular Mukaiyama aldol reaction Electronic supplementary information (ESI) available: crystal data for 13a. See http://www.rsc.org/suppdata/p1/b2/b202752f/ . <i>Journal of the Chemical Society, Perkin Transactions 1</i> , 2002, , 1344-1350.	1.3	24
64	Electrophilic amination of enolates with oxaziridines: effects of oxaziridine structure and reaction conditions. <i>Tetrahedron</i> , 2005, 61, 8423-8442.	1.0	24
65	aza-Prins-pinacol Approach to 7-Azabicyclo[2.2.1]heptanes and Ring Expansion to [3.2.1]Tropans. <i>Organic Letters</i> , 2005, 7, 1335-1338.	2.4	23
66	Bicyclo[3.2.1]octanone catalysts for asymmetric alkene epoxidation: the effect of disubstitution. <i>Tetrahedron</i> , 2006, 62, 6614-6620.	1.0	22
67	Highly stereoselective intramolecular epoxidation in unsaturated oxaziridines. <i>Tetrahedron Letters</i> , 1999, 40, 4453-4456.	0.7	21
68	Tertiary amine-promoted enone aziridination: investigations into factors influencing enantioselective induction. <i>Tetrahedron: Asymmetry</i> , 2014, 25, 74-86.	1.8	21
69	Total Synthesis of Avermectin B1a: Final Coupling Reactions and the Total Synthesis of Avermectin B1a Aglycone. <i>Synlett</i> , 1990, 1990, 328-330.	1.0	20
70	Organocatalytic Synthesis of $\hat{1}^2$ -Alkylaspartates via $\hat{1}^2$ -Lactone Ring Opening. <i>Journal of Organic Chemistry</i> , 2007, 72, 8091-8094.	1.7	20
71	Catalytic enantioselective alkene epoxidation using novel spirocyclic N-carbethoxy-azabicyclo[3.2.1]octanones. <i>Tetrahedron</i> , 2010, 66, 6309-6320.	1.0	20
72	Total synthesis of (+)-milbemycin $\hat{1}^2$. <i>Tetrahedron Letters</i> , 1989, 30, 3209-3212.	0.7	19

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73	Total Synthesis of Avermectin B1a: Planning of the Synthesis and Preparation of the C1-C10 "Southern" Hydrobenzofuran Fragment. <i>Synlett</i> , 1990, 1990, 323-325.	1.0	19
74	N-Amino-N-methylmorpholinium Salts: Highly Active Aziridination Reagents for Chalcones. <i>Synlett</i> , 2006, 2006, 2504-2506.	1.0	18
75	Efficient and Facile Synthesis of Acrylamide Libraries for Protein-Guided Tethering. <i>Organic Letters</i> , 2015, 17, 458-460.	2.4	17
76	Intramolecular epoxidation in unsaturated ketones and oxaziridines. <i>Journal of the Chemical Society, Perkin Transactions 1</i> , 2001, , 2861-2873.	1.3	16
77	Synthesis of the C1-side chain of zaragozic acid D and progress towards a total synthesis. <i>Tetrahedron</i> , 2003, 59, 367-375.	1.0	16
78	Strategies for the Design of Organic Aziridination Reagents and Catalysts: \hat{A} Transition Structures for Alkene Aziridinations by NH Transfer. <i>Journal of Organic Chemistry</i> , 2003, 68, 6497-6501.	1.7	16
79	Oxidative rearrangement of 2-alkoxy-3,4-dihydro-2H-pyrans: stereocontrolled synthesis of 4,5-cis-disubstituted tetrahydrofuranones including whisky and cognac lactones and crobarbatic acid. <i>Tetrahedron</i> , 2009, 65, 4490-4504.	1.0	16
80	Synthesis and Configurational Assignment of Vinyl Sulfoximines and Sulfonylimidamides. <i>Journal of Organic Chemistry</i> , 2021, 86, 7403-7424.	1.7	16
81	Asymmetric electrophilic amination of enolates by a chiral N-alkoxycarbonyloxaziridine. <i>Tetrahedron: Asymmetry</i> , 2001, 12, 535-538.	1.8	14
82	Synthesis and ring openings of cinnamate-derived N-unfunctionalised aziridines. <i>Beilstein Journal of Organic Chemistry</i> , 2012, 8, 1747-1752.	1.3	14
83	Tertiary Amine Promoted Aziridination: Preparation of NH-Aziridines from Aliphatic $\hat{1},\hat{1}^2$ -Unsaturated Ketones. <i>Synlett</i> , 2015, 27, 151-155.	1.0	14
84	Intramolecular Epoxidation of Unsaturated Oxaziridines. <i>Synlett</i> , 1998, 1998, 646-648.	1.0	13
85	Oxidative rearrangement of 2-alkoxy-3,4-dihydro-2H-pyrans: stereocontrolled synthesis of 4,5-cis-disubstituted tetrahydrofuranones. <i>Tetrahedron Letters</i> , 2006, 47, 1617-1619.	0.7	13
86	Multiparameter Kinetic Analysis for Covalent Fragment Optimization by Using Quantitative Irreversible Tethering (qIT). <i>ChemBioChem</i> , 2020, 21, 3417-3422.	1.3	13
87	[2,3]-Sigmatropic Rearrangement of Allylic Selenimides: Strategy for the Synthesis of Peptides, Peptidomimetics, and N-Aryl Vinyl Glycines. <i>Journal of Organic Chemistry</i> , 2014, 79, 3895-3907.	1.7	12
88	Aminative rearrangement of 2-alkoxy-3,4-dihydro-2H-pyrans: a novel stereocontrolled route to substituted pyrrolidines Electronic supplementary information (ESI) available: experimental details and characterisation data for all new compounds. See http://www.rsc.org/suppdata/cc/b3/b316554j/ . <i>Chemical Communications</i> , 2004, , 812.	2.2	11
89	Heteroatom transfer to alkenes by N-protected-oxaziridines: new reaction pathways and products. <i>Tetrahedron Letters</i> , 2005, 46, 2207-2210.	0.7	11
90	Enantioselective Synthesis of $\hat{1}$ -Aminophosphonates via Organocatalytic Sulfenylation and [2,3]-Sigmatropic Sulfamide Rearrangement. <i>Synlett</i> , 2011, 2011, 2347-2350.	1.0	11

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91	The interplay of thermodynamics and kinetics in dictating organocatalytic reactivity and selectivity. <i>Pure and Applied Chemistry</i> , 2013, 85, 1919-1934.	0.9	11
92	Mechanism, kinetics and selectivity of a Williamson ether synthesis: elucidation under different reaction conditions. <i>Reaction Chemistry and Engineering</i> , 2021, 6, 1195-1211.	1.9	10
93	Evaluation of asymmetric Diels-Alder approaches for the synthesis of the cyclohexene subunit of CP-225,917 and CP-263,114. <i>Tetrahedron Letters</i> , 2003, 44, 3915-3918.	0.7	9
94	Oxidation Reactions. , 0, , 403-424.		7
95	Prospective use of molecular field points in ligand-based virtual screening: efficient identification of new reversible Cdc25 inhibitors. <i>MedChemComm</i> , 2013, 4, 1148.	3.5	7
96	A genetically-encoded crosslinker screen identifies SERBP1 as a PKC μ substrate influencing translation and cell division. <i>Nature Communications</i> , 2021, 12, 6934.	5.8	7
97	Identification of the first structurally validated covalent ligands of the small GTPase RAB27A. <i>RSC Medicinal Chemistry</i> , 2022, 13, 150-155.	1.7	7
98	Approaches to the β -lactone unit of CP-225,917 and CP-263,114. <i>Tetrahedron Letters</i> , 2002, 43, 6027-6030.	0.7	6
99	Vinyl sulfonamide synthesis for irreversible tethering via a novel β -selenoether protection strategy. <i>MedChemComm</i> , 2019, 10, 158-163.	3.5	6
100	Furanose Synthesis via Regioselective Dihydroxylation of 1-Silyloxy-1,3-dienes: Application to the Furanose Unit of 4-epi-Hygromycin A. <i>Synlett</i> , 2004, 2004, 0350-0352.	1.0	5
101	High-throughput Kinetic Analysis for Target-Directed Covalent Ligand Discovery. <i>Angewandte Chemie</i> , 2018, 130, 5355-5359.	1.6	5
102	Synthetic methods : Part (ii) Oxidation and reduction methods. <i>Annual Reports on the Progress of Chemistry Section B</i> , 2003, 99, 21.	0.8	4
103	Synthetic methods : Part (ii) Oxidation and reduction methods. <i>Annual Reports on the Progress of Chemistry Section B</i> , 2006, 102, 34.	0.8	4
104	Multi-Objective Computer-Aided Solvent Design for Selectivity and Rate in Reactions. <i>Computer Aided Chemical Engineering</i> , 2018, , 2437-2442.	0.3	4
105	Acrylamide fragment inhibitors that induce unprecedented conformational distortions in enterovirus 71 3C and SARS-CoV-2 main protease. <i>Acta Pharmaceutica Sinica B</i> , 2022, 12, 3924-3933.	5.7	4
106	3 Synthetic methods : Part (ii) Oxidation and reduction methods. <i>Annual Reports on the Progress of Chemistry Section B</i> , 2004, 100, 51.	0.8	3
107	Synthetic methods : Part (ii) Oxidation and reduction methods. <i>Annual Reports on the Progress of Chemistry Section B</i> , 2005, 101, 33.	0.8	3
108	Co-ordinated control of the Aurora B abscission checkpoint by PKC μ complex assembly, midbody recruitment and retention. <i>Biochemical Journal</i> , 2021, 478, 2247-2263.	1.7	3

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109	The Champagne Route to Avermectins and Milbemycins. Strategies and Tactics in Organic Synthesis, 1991, , 237-293.	0.1	1
110	Aminative Rearrangement of 2-Alkoxy-3,4-dihydro-2H-pyrans: A Novel Stereocontrolled Route to Substituted Pyrrolidines.. ChemInform, 2004, 35, no.	0.1	1
111	Recent Synthetic Studies on the Zaragozaic Acids (Squalestatins). ChemInform, 2003, 34, no.	0.1	0
112	Efficient Nitrogen Transfer from Aldehyde-Derived N-Acyloxaziridines.. ChemInform, 2003, 34, no.	0.1	0
113	Amination and [2,3]-Sigmatropic Rearrangement of Propargylic Sulfides Using a Ketomalonate-Derived Oxaziridine: Synthesis of N-Allenylsulfenimides.. ChemInform, 2004, 35, no.	0.1	0
114	Amine-Catalyzed Epoxidation of Alkenes: A New Mechanism for the Activation of Oxone. ChemInform, 2004, 35, no.	0.1	0
115	New Methods and Synthetic Applications of Asymmetric Nitrogen Transfer. Chinese Journal of Chemistry, 2005, 23, 1270-1272.	2.6	0
116	Oxaziridine-Mediated Amination of Primary Amines: Scope and Application to a One-Pot Pyrazole Synthesis.. ChemInform, 2005, 36, no.	0.1	0
117	Heteroatom Transfer to Alkenes by N-Protected-oxaziridines: New Reaction Pathways and Products.. ChemInform, 2005, 36, no.	0.1	0
118	Aza-Prins-pinacol Approach to 7-Azabicyclo[2.2.1]heptanes and Ring Expansion to [3.2.1]Tropanes.. ChemInform, 2005, 36, no.	0.1	0
119	Hydroxylation, Epoxidation and Related Reactions. , 2007, , 193-254.		0
120	Quantitative Irreversible Tethering (qIT) for Target-directed Covalent Fragment Screening. Bio-protocol, 2020, 10, e3855.	0.2	0