

Jurgen Brem

List of Publications by Year in descending order

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86
papers

2,884
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186265

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docs citations

91
times ranked

2660
citing authors

#	ARTICLE	IF	CITATIONS
1	Imitation of β^2 -lactam binding enables broad-spectrum metallo- β^2 -lactamase inhibitors. <i>Nature Chemistry</i> , 2022, 14, 15-24.	13.6	39
2	Studies on the Reactions of Biapenem with VIM Metallo β^2 -Lactamases and the Serine β^2 -Lactamase KPC-2. <i>Antibiotics</i> , 2022, 11, 396.	3.7	8
3	Studies on enmetazobactam clarify mechanisms of widely used β^2 -lactamase inhibitors. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2117310119.	7.1	6
4	Structural Investigations of the Inhibition of <i>Escherichia coli</i> AmpC β^2 -Lactamase by Diazabicyclooctanes. <i>Antimicrobial Agents and Chemotherapy</i> , 2021, 65, .	3.2	10
5	Faropenem reacts with serine and metallo- β^2 -lactamases to give multiple products. <i>European Journal of Medicinal Chemistry</i> , 2021, 215, 113257.	5.5	14
6	Structural Basis of Metallo- β^2 -lactamase Inhibition by <i>N</i> -Sulfamoylpyrrole-2-carboxylates. <i>ACS Infectious Diseases</i> , 2021, 7, 1809-1817.	3.8	17
7	High-Throughput Crystallography Reveals Boron-Containing Inhibitors of a Penicillin-Binding Protein with Di- and Tricovalent Binding Modes. <i>Journal of Medicinal Chemistry</i> , 2021, 64, 11379-11394.	6.4	15
8	An on-demand, drop-on-drop method for studying enzyme catalysis by serial crystallography. <i>Nature Communications</i> , 2021, 12, 4461.	12.8	34
9	X-ray free-electron laser studies reveal correlated motion during isopenicillin <i>N</i> synthase catalysis. <i>Science Advances</i> , 2021, 7, .	10.3	23
10	Design and enantioselective synthesis of 3-(β -acrylic acid) benzoxaboroles to combat carbapenemase resistance. <i>Chemical Communications</i> , 2021, 57, 7709-7712.	4.1	15
11	A Fluorescence-Based Assay for Screening β^2 -Lactams Targeting the <i>Mycobacterium tuberculosis</i> Transpeptidase Ldt _{Mt2} . <i>ChemBioChem</i> , 2020, 21, 368-372.	2.6	13
12	Broad Spectrum β^2 -Lactamase Inhibition by a Thioether Substituted Bicyclic Boronate. <i>ACS Infectious Diseases</i> , 2020, 6, 1398-1404.	3.8	15
13	Monitoring protein-metal binding by 19F NMR – a case study with the New Delhi metallo- β^2 -lactamase 1. <i>RSC Medicinal Chemistry</i> , 2020, 11, 387-391.	3.9	2
14	Bicyclic Boronates as Potent Inhibitors of AmpC, the Class C β^2 -Lactamase from <i>Escherichia coli</i> . <i>Biomolecules</i> , 2020, 10, 899.	4.0	20
15	In vitro efficacy of imipenem-relebactam and cefepime-AAI101 against a global collection of ESBL-positive and carbapenemase-producing Enterobacteriaceae. <i>International Journal of Antimicrobial Agents</i> , 2020, 56, 105925.	2.5	29
16	Cyclic boronates as versatile scaffolds for KPC-2 β^2 -lactamase inhibition. <i>RSC Medicinal Chemistry</i> , 2020, 11, 491-496.	3.9	20
17	Mapping the Hydrophobic Substrate Binding Site of Phenylalanine Ammonia-Lyase from <i>Petroselinum crispum</i> . <i>ACS Catalysis</i> , 2019, 9, 8825-8834.	11.2	28
18	Targeting the <i>Mycobacterium tuberculosis</i> transpeptidase LdtMt2 with cysteine-reactive inhibitors including ebselen. <i>Chemical Communications</i> , 2019, 55, 10214-10217.	4.1	25

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19	Molecular Basis of Class A β -Lactamase Inhibition by Relebactam. <i>Antimicrobial Agents and Chemotherapy</i> , 2019, 63, .	3.2	45
20	¹⁹ NMR Monitoring of Reversible Protein Post-Translational Modifications: Class D β -Lactamase Carbamylation and Inhibition. <i>Chemistry - A European Journal</i> , 2019, 25, 11837-11841.	3.3	14
21	Bicyclic Boronate VNRX-5133 Inhibits Metallo- and Serine- β -Lactamases. <i>Journal of Medicinal Chemistry</i> , 2019, 62, 8544-8556.	6.4	139
22	Mechanistic Insights into β -Lactamase-Catalysed Carbapenem Degradation Through Product Characterisation. <i>Scientific Reports</i> , 2019, 9, 13608.	3.3	27
23	Profiling interactions of vaborbactam with metallo- β -lactamases. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2019, 29, 1981-1984.	2.2	34
24	Will morphing boron-based inhibitors beat the β -lactamases?. <i>Current Opinion in Chemical Biology</i> , 2019, 50, 101-110.	6.1	69
25	Studies on the inhibition of AmpC and other β -lactamases by cyclic boronates. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2019, 1863, 742-748.	2.4	28
26	Non-Hydrolytic β -Lactam Antibiotic Fragmentation by β -Transpeptidases and Serine β -Lactamase Cysteine Variants. <i>Angewandte Chemie</i> , 2019, 131, 2012-2016.	2.0	4
27	Non-Hydrolytic β -Lactam Antibiotic Fragmentation by β -Transpeptidases and Serine β -Lactamase Cysteine Variants. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 1990-1994.	13.8	27
28	Crystal structures of VIM class 1 complexes explain active site heterogeneity in VIM class metallo- β -lactamases. <i>FEBS Journal</i> , 2019, 286, 169-183.	4.7	30
29	Structure activity relationship studies on rhodanines and derived enethiol inhibitors of metallo- β -lactamases. <i>Bioorganic and Medicinal Chemistry</i> , 2018, 26, 2928-2936.	3.0	17
30	A New Mechanism for β -Lactamases: Class D Enzymes Degrade β -Methyl Carbapenems through Lactone Formation. <i>Angewandte Chemie</i> , 2018, 130, 1296-1299.	2.0	4
31	Rh(π -allyl)-Catalyzed directed C-H carbenoid coupling reveals aromatic bisphosphonates inhibiting metallo- and Serine- β -lactamases. <i>Organic Chemistry Frontiers</i> , 2018, 5, 1288-1292.	4.5	21
32	In Silico Fragment-Based Design Identifies Subfamily B1 Metallo- β -lactamase Inhibitors. <i>Journal of Medicinal Chemistry</i> , 2018, 61, 1255-1260.	6.4	40
33	A New Mechanism for β -Lactamases: Class D Enzymes Degrade β -Methyl Carbapenems through Lactone Formation. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1282-1285.	13.8	27
34	Cyclobutanone Mimics of Intermediates in Metallo- β -Lactamase Catalysis. <i>Chemistry - A European Journal</i> , 2018, 24, 5734-5737.	3.3	25
35	Biosynthesis of histone messenger RNA employs a specific 3' end endonuclease. <i>ELife</i> , 2018, 7, .	6.0	14
36	Insights into the Mechanistic Basis of Plasmid-Mediated Colistin Resistance from Crystal Structures of the Catalytic Domain of MCR-1. <i>Scientific Reports</i> , 2017, 7, 39392.	3.3	107

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37	Cyclic Boronates Inhibit All Classes of β -Lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, .	3.2	94
38	¹⁹ F-NMR Reveals the Role of Mobile Loops in Product and Inhibitor Binding by the São Paulo Metallo- β -Lactamase. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 3862-3866.	13.8	20
39	¹⁹ F-NMR Reveals the Role of Mobile Loops in Product and Inhibitor Binding by the São Paulo Metallo- β -Lactamase. <i>Angewandte Chemie</i> , 2017, 129, 3920-3924.	2.0	3
40	Crystallographic analyses of isoquinoline complexes reveal a new mode of metallo- β -lactamase inhibition. <i>Chemical Communications</i> , 2017, 53, 5806-5809.	4.1	29
41	NMR-filtered virtual screening leads to non-metal chelating metallo- β -lactamase inhibitors. <i>Chemical Science</i> , 2017, 8, 928-937.	7.4	63
42	“To Cross-Seed or Not To Cross-Seed”: A Pilot Study Using Metallo- β -lactamases. <i>Crystal Growth and Design</i> , 2017, 17, 913-924.	3.0	8
43	New Delhi Metallo- β -Lactamase 1 Catalyzes Avibactam and Aztreonam Hydrolysis. <i>Antimicrobial Agents and Chemotherapy</i> , 2017, 61, .	3.2	33
44	Structural/mechanistic insights into the efficacy of nonclassical β -lactamase inhibitors against extensively drug resistant <i>Stenotrophomonas maltophilia</i> clinical isolates. <i>Molecular Microbiology</i> , 2017, 106, 492-504.	2.5	39
45	¹³ C-Carbamylation as a mechanistic probe for the inhibition of class D β -lactamases by avibactam and halide ions. <i>Organic and Biomolecular Chemistry</i> , 2017, 15, 6024-6032.	2.8	19
46	Interaction of Avibactam with Class B Metallo- β -Lactamases. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 5655-5662.	3.2	82
47	Cation- π Interactions Contribute to Substrate Recognition in β -Butyrobetaine Hydroxylase Catalysis. <i>Chemistry - A European Journal</i> , 2016, 22, 1270-1276.	3.3	24
48	Cephalosporins inhibit human metallo β -lactamase fold DNA repair nucleases SNM1A and SNM1B/apollo. <i>Chemical Communications</i> , 2016, 52, 6727-6730.	4.1	28
49	Sideromimic Modification of Lactivicin Dramatically Increases Potency against Extensively Drug-Resistant <i>Stenotrophomonas maltophilia</i> Clinical Isolates. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 4170-4175.	3.2	16
50	Use of ferrous iron by metallo- β -lactamases. <i>Journal of Inorganic Biochemistry</i> , 2016, 163, 185-193.	3.5	20
51	Structural basis of metallo- β -lactamase, serine- β -lactamase and penicillin-binding protein inhibition by cyclic boronates. <i>Nature Communications</i> , 2016, 7, 12406.	12.8	202
52	Structural and Biochemical Characterization of Rm3, a Subclass B3 Metallo- β -Lactamase Identified from a Functional Metagenomic Study. <i>Antimicrobial Agents and Chemotherapy</i> , 2016, 60, 5828-5840.	3.2	22
53	Frontispiece: Cation- π Interactions Contribute to Substrate Recognition in β -Butyrobetaine Hydroxylase Catalysis. <i>Chemistry - A European Journal</i> , 2016, 22, .	3.3	0
54	The road to avibactam: the first clinically useful non- β -lactam working somewhat like a β -lactam. <i>Future Medicinal Chemistry</i> , 2016, 8, 1063-1084.	2.3	102

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55	The Chemical Biology of Human Metallo- β -Lactamase Fold Proteins. Trends in Biochemical Sciences, 2016, 41, 338-355.	7.5	87
56	Comparison of Verona Integron-Borne Metallo- β -Lactamase (VIM) Variants Reveals Differences in Stability and Inhibition Profiles. Antimicrobial Agents and Chemotherapy, 2016, 60, 1377-1384.	3.2	38
57	Development and application of ligand-based NMR screening assays for β -butyrobetaine hydroxylase. MedChemComm, 2016, 7, 873-880.	3.4	8
58	<i>In vitro</i> and <i>in vivo</i> activity of ML302F: a thioenolate inhibitor of VIM-subfamily metallo- β -lactamases. MedChemComm, 2016, 7, 190-193.	3.4	9
59	Structural Basis of Metallo- β -Lactamase Inhibition by Captopril Stereoisomers. Antimicrobial Agents and Chemotherapy, 2016, 60, 142-150.	3.2	134
60	Crystal structure of human persulfide dioxygenase: structural basis of ethylmalonic encephalopathy. Human Molecular Genetics, 2015, 24, 2458-2469.	2.9	48
61	Bisthiazolidines: A Substrate-Mimicking Scaffold as an Inhibitor of the NDM-1 Carbapenemase. ACS Infectious Diseases, 2015, 1, 544-554.	3.8	100
62	Assay for drug discovery: Synthesis and testing of nitrocefin analogues for use as β -lactamase substrates. Analytical Biochemistry, 2015, 486, 75-77.	2.4	15
63	Biochemical characterization of New Delhi metallo- β -lactamase variants reveals differences in protein stability. Journal of Antimicrobial Chemotherapy, 2015, 70, 463-469.	3.0	57
64	Studying the active-site loop movement of the São Paulo metallo- β -lactamase-1. Chemical Science, 2015, 6, 956-963.	7.4	36
65	Monitoring Conformational Changes in the NDM-1 Metallo- β -lactamase by ¹⁹ F-NMR Spectroscopy. Angewandte Chemie - International Edition, 2014, 53, 3129-3133.	13.8	58
66	Rhodanine hydrolysis leads to potent thioenolate mediated metallo- β -lactamase inhibition. Nature Chemistry, 2014, 6, 1084-1090.	13.6	110
67	Ejection of structural zinc leads to inhibition of β -butyrobetaine hydroxylase. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 4954-4957.	2.2	11
68	New chemo-enzymatic approaches for the synthesis of (R)- and (S)-bufuralol. Tetrahedron: Asymmetry, 2014, 25, 1316-1322.	1.8	11
69	Titelbild: Monitoring Conformational Changes in the NDM-1 Metallo- β -lactamase by ¹⁹ F-NMR Spectroscopy (Angew. Chem. 12/2014). Angewandte Chemie, 2014, 126, 3095-3095.	2.0	1
70	Assay Platform for Clinically Relevant Metallo- β -lactamases. Journal of Medicinal Chemistry, 2013, 56, 6945-6953.	6.4	100
71	Chromophore-Linked Substrate (CLS405): Probing Metallo- β -Lactamase Activity and Inhibition. ChemMedChem, 2013, 8, 1923-1929.	3.2	21
72	Stereoselective preparation of lipidated carboxymethyl-proline/pipecolic acid derivatives via coupling of engineered crotonases with an alkylmalonyl-CoA synthetase. Organic and Biomolecular Chemistry, 2013, 11, 8191.	2.8	10

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73	The Interaction of Nitrophenylalanines with Wild Type and Mutant 4-Methylideneimidazole-5-one-less Phenylalanine Ammonia Lyase. <i>ChemCatChem</i> , 2013, 5, 779-783.	3.7	2
74	Heterocycles 32. Efficient kinetic resolution of 1-(2-arylthiazol-4-yl)ethanols and their acetates using lipase B from <i>Candida antarctica</i> . <i>Journal of Molecular Catalysis B: Enzymatic</i> , 2013, 94, 88-94.	1.8	9
75	Binding of (S)-Penicilloic Acid to Penicillin Binding Protein 3. <i>ACS Chemical Biology</i> , 2013, 8, 2112-2116.	3.4	23
76	Chemoenzymatic Preparation of α -Heteroarylethanamines of Low Solubility. <i>European Journal of Organic Chemistry</i> , 2012, 2012, 3288-3294.	2.4	18
77	Sequential enzymatic procedure for the preparation of enantiomerically pure 2-heteroaryl-2-hydroxyacetic acids. <i>Tetrahedron: Asymmetry</i> , 2012, 23, 181-187.	1.8	5
78	Immobilization to improve the properties of <i>Pseudomonas fluorescens</i> lipase for the kinetic resolution of 3-aryl-3-hydroxy esters. <i>Process Biochemistry</i> , 2012, 47, 119-126.	3.7	22
79	Lipase mediated sequential resolution of aromatic β -hydroxy esters using fatty acid derivatives. <i>Tetrahedron: Asymmetry</i> , 2011, 22, 1672-1679.	1.8	16
80	Heterocycles 30: Lipase catalyzed kinetic resolution of racemic 1-(2-aryl-4-methyl-thiazol-5-yl)ethanols. <i>Tetrahedron: Asymmetry</i> , 2011, 22, 2165-2171.	1.8	10
81	Lipases A and B from <i>Candida antarctica</i> in the enantioselective acylation of ethyl 3-heteroaryl-3-hydroxypropanoates: aspects on the preparation and enantioselectivity. <i>Tetrahedron: Asymmetry</i> , 2011, 22, 315-322.	1.8	29
82	Lipase-catalyzed kinetic resolutions of racemic 1-(10-ethyl-10H-phenothiazin-1,2, and 4-yl)ethanols and their acetates. <i>Tetrahedron: Asymmetry</i> , 2011, 22, 916-923.	1.8	15
83	Lipase-catalyzed kinetic resolution of racemic 1-(10-alkyl-10H-phenothiazin-3-yl)ethanols and their butanoates. <i>Tetrahedron: Asymmetry</i> , 2010, 21, 1993-1998.	1.8	17
84	Enzyme-catalyzed synthesis of (R)- and (S)-3-hydroxy-3-(10-alkyl-10H-phenothiazin-3-yl)propanoic acids. <i>Tetrahedron: Asymmetry</i> , 2010, 21, 365-373.	1.8	17
85	2-Amino-3-(5-phenylfuran-2-yl)propionic Acids and 5-Phenylfuran-2-ylacrylic Acids are Novel Substrates of Phenylalanine Ammonia-Lyase. <i>Heterocycles</i> , 2010, 82, 1217.	0.7	13
86	Enzyme-catalyzed synthesis of (R)- and (S)-3-heteroaryl-3-hydroxy-propanoic acids and their derivatives. <i>Tetrahedron: Asymmetry</i> , 2009, 20, 489-496.	1.8	17