Jean-Denis Docquier

List of Publications by Year
in descending order

105	4,470	101496	114418
papers	citations	36 h-index	63 g-index

106	106	106	3781
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	1,2,4â€Triazoleâ€3â€Thione Analogues with a 2â€Ethylbenzoic Acid at Position 4 as VIMâ€type Metalloâ€Î²â€Lactamase Inhibitors. ChemMedChem, 2022, 17, .	1.6	9
2	Antibacterial alkylguanidino ureas: Molecular simplification approach, searching for membrane-based MoA. European Journal of Medicinal Chemistry, 2022, 231, 114158.	2.6	5
3	Editorial: Structural and Biochemical Aspects of the Interaction of Î²-Lactamases With State-of-the-Art Inhibitors. Frontiers in Microbiology, 2022, 13, 849324.	1.5	1
4	Towards Innovative Antibacterial Correctors for Cystic Fibrosis Targeting the Lung Microbiome with a Multifunctional Effect. ChemMedChem, 2022, 17, .	1.6	2
5	A fragment-based drug discovery strategy applied to the identification of NDM-1 Î²-lactamase inhibitors. European Journal of Medicinal Chemistry, 2022, 240, 114599.	2.6	9
6	Intermolecular interactions of the extended recognition site of <scp>VIM</scp>â€2 <scp>metalloâ€Î²â€lactamase</scp> with 1,2,4â€triazoleâ€3â€thione inhibitors. Validations of a polarizable molecular mechanics potential by ab initio <scp>QC</scp>. Journal of Computational Chemistry, 2021, 42, 86-106.	1.5	4
7	4-Alkyl-1,2,4-triazole-3-thione analogues as metallo-Î²-lactamase inhibitors. Bioorganic Chemistry, 2021, 113, 105024.	2.0	12
8	1,2,4-Triazole-3-thione compounds with a 4-ethyl alkyl/aryl sulfide substituent are broad-spectrum metallo-Î²-lactamase inhibitors with re-sensitization activity. European Journal of Medicinal Chemistry, 2021, 226, 113873.	2.6	16
9	Anatomy of an extensively drug-resistant Klebsiella pneumoniae outbreak in Tuscany, Italy. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	37
10	Efficient Inactivation of SARS-CoV-2 and Other RNA or DNA Viruses with Blue LED Light. Pathogens, 2021, 10, 1590.	1.2	4
11	A Standard Numbering Scheme for Class C Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2020, 64, .	1.4	50
12	VNRX-5133 (Taniborbactam), a Broad-Spectrum Inhibitor of Serine- and Metallo-Î²-Lactamases, Restores Activity of Cefepime in Enterobacterales and Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2020, 64, .	1.4	123
13	Discovery of Taniborbactam (VNRX-5133): A Broad-Spectrum Serine- and Metallo-Î²-lactamase Inhibitor for Carbapenem-Resistant Bacterial Infections. Journal of Medicinal Chemistry, 2020, 63, 2789-2801.	2.9	181
14	4-Amino-1,2,4-triazole-3-thione-derived Schiff bases as metallo-Î²-lactamase inhibitors. European Journal of Medicinal Chemistry, 2020, 208, 112720.	2.6	29
15	4-(N-Alkyl- and -Acyl-amino)-1,2,4-triazole-3-thione Analogs as Metallo-Î²-Lactamase Inhibitors: Impact of 4-Linker on Potency and Spectrum of Inhibition. Biomolecules, 2020, 10, 1094.	1.8	15
16	Virtual screening identifies broad-spectrum Î²-lactamase inhibitors with activity on clinically relevant serine- and metallo-carbapenemases. Scientific Reports, 2020, 10, 12763.	1.6	25
17	ANT2681: SAR Studies Leading to the Identification of a Metallo-Î²-lactamase Inhibitor with Potential for Clinical Use in Combination with Meropenem for the Treatment of Infections Caused by NDM-Producing Enterobacteriaceae. ACS Infectious Diseases, 2020, 6, 2419-2430.	1.8	31
18	Amino Acid Replacement at Position 228 Induces Fluctuation in the â„¦-Loop of KPC-3 and Reduces the Affinity against Oxyimino Cephalosporins: Kinetic and Molecular Dynamics Studies. Catalysts, 2020, 10, 1474.	1.6	1

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19	Discovery of ANT3310, a Novel Broad-Spectrum Serine Î²-Lactamase Inhibitor of the Diazabicyclooctane Class, Which Strongly Potentiates Meropenem Activity against Carbapenem-Resistant Enterobacterales and Acinetobacter baumannii. Journal of Medicinal Chemistry, 2020, 63, 15802-15820.	2.9	19
20	Isonitrile-Based Multicomponent Synthesis of Î²-Amino Boronic Acids as Î²-Lactamase Inhibitors. Antibiotics, 2020, 9, 249.	1.5	12
21	Screen of Unfocused Libraries Identified Compounds with Direct or Synergistic Antibacterial Activity. ACS Medicinal Chemistry Letters, 2020, 11, 899-905.	1.3	6
22	SAR Studies Leading to the Identification of a Novel Series of Metallo-Î²-lactamase Inhibitors for the Treatment of Carbapenem-Resistant Enterobacteriaceae Infections That Display Efficacy in an Animal Infection Model. ACS Infectious Diseases, 2019, 5, 131-140.	1.8	46
23	An update on Î²-lactamase inhibitor discovery and development. Drug Resistance Updates, 2018, 36, 13-29.	6.5	170
24	Deciphering Multifactorial Resistance Phenotypes in Acinetobacter baumannii by Genomics and Targeted Label-free Proteomics. Molecular and Cellular Proteomics, 2018, 17, 442-456.	2.5	29
25	Discovery of a Novel Metallo-Î²-Lactamase Inhibitor That Potentiates Meropenem Activity against Carbapenem-Resistant Enterobacteriaceae. Antimicrobial Agents and Chemotherapy, 2018, 62, .	1.4	57
26	Boric acid and acetate anion binding to subclass B3 metallo-Î²-lactamase BJP-1 provides clues for mechanism of action and inhibitor design. Inorganica Chimica Acta, 2018, 470, 331-341.	1.2	4
27	Alkyl-guanidine Compounds as Potent Broad-Spectrum Antibacterial Agents: Chemical Library Extension and Biological Characterization. Journal of Medicinal Chemistry, 2018, 61, 9162-9176.	2.9	30
28	Type M Resistance to Macrolides Is Due to a Two-Gene Efflux Transport System of the ATP-Binding Cassette (ABC) Superfamily. Frontiers in Microbiology, 2018, 9, 1670.	1.5	40
29	Atomicâ€Resolution Structure of a Classâ€…C Î²â€Lactamase and Its Complex with Avibactam. ChemMedChem, 2018, 13, 1437-1446.	1.6	15
30	1,2,4â€Triazoleâ€3â€thione Compounds as Inhibitors of Dizinc Metalloâ€Î²â€lactamases. ChemMedChem, 2017, 12, 972-985.	1.6	49
31	Genetic and biochemical characterisation of CTX-M-37 extended-spectrum Î²-lactamase from an Enterobacter cloacae clinical isolate from Mongolia. Journal of Global Antimicrobial Resistance, 2017, 10, 3-7.	0.9	3
32	Design and synthesis of a novel inhibitor of T. Viride chitinase through an in silico target fishing protocol. Bioorganic and Medicinal Chemistry Letters, 2017, 27, 3332-3336.	1.0	11
33	Identification, synthesis and biological activity of alkyl-guanidine oligomers as potent antibacterial agents. Scientific Reports, 2017, 7, 8251.	1.6	23
34	Chryseobacterium gleum in a man with prostatectomy in Senegal: a case report and review of the literature. Journal of Medical Case Reports, 2017, 11, 118.	0.4	8
35	Computational and biological profile of boronic acids for the detection of bacterial serine- and metallo-Î²-lactamases. Scientific Reports, 2017, 7, 17716.	1.6	35
36	Expanding the Repertoire of Carbapenem-Hydrolyzing Metallo-ÃŸ-Lactamases by Functional Metagenomic Analysis of Soil Microbiota. Frontiers in Microbiology, 2016, 7, 1985.	1.5	18

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37	Targeting clinically-relevant metallo-Î²-lactamases: from high-throughput docking to broad-spectrum inhibitors. Journal of Enzyme Inhibition and Medicinal Chemistry, 2016, 31, 98-109.	2.5	19
38	Biological Characterization and in Vivo Assessment of the Activity of a New Synthetic Macrocyclic Antifungal Compound. Journal of Medicinal Chemistry, 2016, 59, 3854-3866.	2.9	18
39	Structure-based approach for identification of novel phenylboronic acids as serine-Î²-lactamase inhibitors. Journal of Computer-Aided Molecular Design, 2016, 30, 851-861.	1.3	9
40	Crystal Structure of the Pseudomonas aeruginosa BEL-1 Extended-Spectrum Î²-Lactamase and Its Complexes with Moxalactam and Imipenem. Antimicrobial Agents and Chemotherapy, 2016, 60, 7189-7199.	1.4	9
41	Effect of High N -Acetylcysteine Concentrations on Antibiotic Activity against a Large Collection of Respiratory Pathogens. Antimicrobial Agents and Chemotherapy, 2016, 60, 7513-7517.	1.4	27
42	Biochemical Characterization of CPS-1, a Subclass B3 Metallo-Î²-Lactamase from a Chryseobacterium piscium Soil Isolate. Antimicrobial Agents and Chemotherapy, 2016, 60, 1869-1873.	1.4	13
43	Structure-Function Relationships of Class D Carbapenemases. Current Drug Targets, 2016, 17, 1061-1071.	1.0	28
44	OXA-372, a novel carbapenem-hydrolysing class D Î²-lactamase from aCitrobacter freundiiisolated from a hospital wastewater plant. Journal of Antimicrobial Chemotherapy, 2015, 70, 2749-2756.	1.3	27
45	Biochemical Characterization of VIM-39, a VIM-1-Like Metallo-Î²-Lactamase Variant from a Multidrug-Resistant Klebsiella pneumoniae Isolate from Greece. Antimicrobial Agents and Chemotherapy, 2015, 59, 7811-7814.	1.4	6
46	Molecular Basis of Selective Inhibition and Slow Reversibility of Avibactam against Class D Carbapenemases: A Structure-Guided Study of OXA-24 and OXA-48. ACS Chemical Biology, 2015, 10, 591-600.	1.6	83
47	Biochemical Characterization of the POM-1 Metallo-Î²-Lactamase from Pseudomonas otitidis. Antimicrobial Agents and Chemotherapy, 2015, 59, 1755-1758.	1.4	18
48	Occurrence of conjugative IncF-type plasmids harboring the blaCTX-M-15 gene in Enterobacteriaceae isolates from newborns in Tunisia. Pediatric Research, 2015, 77, 107-110.	1.1	11
49	Editorial overview: Anti-infectives: Towards novel antiviral and antibacterial drugs? Current approaches to address a growing medical need. Current Opinion in Pharmacology, 2014, 18, iv-vi.	1.7	1
50	Synthesis of linear and cyclic guazatine derivatives endowed with antibacterial activity. Bioorganic and Medicinal Chemistry Letters, 2014, 24, 5525-5529.	1.0	14
51	Structural Insight into Potent Broad-Spectrum Inhibition with Reversible Recyclization Mechanism: Avibactam in Complex with CTX-M-15 and Pseudomonas aeruginosa AmpC Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2013, 57, 2496-2505.	1.4	185
52	FIM-1, a New Acquired Metallo-Î²-Lactamase from a Pseudomonas aeruginosa Clinical Isolate from Italy. Antimicrobial Agents and Chemotherapy, 2013, 57, 410-416.	1.4	87
53	Optimization of a direct spectrophotometric method to investigate the kinetics and inhibition of sialidases. BMC Biochemistry, 2012, 13, 19.	4.4	12
54	Regulation of neuraminidase expression in Streptococcus pneumoniae. BMC Microbiology, 2012, 12, 200.	1.3	33

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55	Genetic Context and Biochemical Characterization of the IMP-18 Metallo-Î²-Lactamase Identified in a Pseudomonas aeruginosa Isolate from the United States. Antimicrobial Agents and Chemotherapy, 2011, 55, 140-145.	1.4	27
56	Structure of the extended-spectrum Î²-lactamase TEM-72 inhibited by citrate. Acta Crystallographica Section F: Structural Biology Communications, 2011, 67, 303-306.	0.7	14
57	Biochemical and Structural Characterization of the Subclass B1 Metallo-Î²-Lactamase VIM-4. Antimicrobial Agents and Chemotherapy, 2011, 55, 1248-1255.	1.4	55
58	Evolution to carbapenem-hydrolyzing activity in noncarbapenemase class D Î²-lactamase OXA-10 by rational protein design. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 18424-18429.	3.3	58
59	Purification and Biochemical Characterization of IMP-13 Metallo-Î²-Lactamase. Antimicrobial Agents and Chemotherapy, 2011, 55, 399-401.	1.4	11
60	Biochemical Characterization of the TEM-107 Extended-Spectrum Î²-Lactamase in a Klebsiella pneumoniae Isolate from South Korea. Antimicrobial Agents and Chemotherapy, 2011, 55, 5930-5932.	1.4	3
61	Crystal Structure of the Narrow-Spectrum OXA-46 Class D Î²-Lactamase: Relationship between Active-Site Lysine Carbamylation and Inhibition by Polycarboxylates. Antimicrobial Agents and Chemotherapy, 2010, 54, 2167-2174.	1.4	31
62	BEL-2, an Extended-Spectrum Î²-Lactamase with Increased Activity toward Expanded-Spectrum Cephalosporins in Pseudomonas aeruginosa. Antimicrobial Agents and Chemotherapy, 2010, 54, 533-535.	1.4	21
63	Intercontinental Dissemination of IMP-13-Producing Pseudomonas aeruginosa Belonging in Sequence Type 621. Journal of Clinical Microbiology, 2010, 48, 4342-4343.	1.8	21
64	Genetic and Biochemical Characterization of TRU-1, the Endogenous Class C Î²-Lactamase from Aeromonas enteropelogenes. Antimicrobial Agents and Chemotherapy, 2010, 54, 1547-1554.	1.4	13
65	Characteristics of clinical isolates of Acinetobacter genomospecies 10 carrying two different metallo-Î²-lactamases. International Journal of Antimicrobial Agents, 2010, 36, 259-263.	1.1	26
66	High-Resolution Crystal Structure of the Subclass B3 Metallo-Î²-Lactamase BJP-1: Rational Basis for Substrate Specificity and Interaction with Sulfonamides. Antimicrobial Agents and Chemotherapy, 2010, 54, 4343-4351.	1.4	46
67	Mutational Analysis of VIM-2 Reveals an Essential Determinant for Metallo-Î²-Lactamase Stability and Folding. Antimicrobial Agents and Chemotherapy, 2010, 54, 3197-3204.	1.4	53
68	Improved performance of the modified Hodge test with MacConkey agar for screening carbapenemase-producing Gram-negative bacilli. Journal of Microbiological Methods, 2010, 83, 149-152.	0.7	62
69	IND-6, a Highly Divergent IND-Type Metallo-Î²-Lactamase fromChryseobacterium indologenesStrain 597 Isolated in Burkina Faso. Antimicrobial Agents and Chemotherapy, 2009, 53, 4320-4326.	1.4	22
70	Crystal Structure of the OXA-48 Î²-Lactamase Reveals Mechanistic Diversity among Class D Carbapenemases. Chemistry and Biology, 2009, 16, 540-547.	6.2	144
71	Crystal structure of a coldâ€adapted classâ€ƒC Î²â€lactamase. FEBS Journal, 2008, 275, 1687-1697.	2.2	48
72	Immunization with Toscana virus N-Gc proteins protects mice against virus challenge. Virology, 2008, 375, 521-528.	1.1	13

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73	The Three-Dimensional Structure of VIM-2, a Zn-Î²-Lactamase from Pseudomonas aeruginosa in Its Reduced and Oxidised Form. Journal of Molecular Biology, 2008, 375, 604-611.	2.0	115
74	Functional Diversity among Metallo-Î²-Lactamases: Characterization of the CAR-1 Enzyme of Erwinia carotovora. Antimicrobial Agents and Chemotherapy, 2008, 52, 2473-2479.	1.4	17
75	Bloodstream infections caused by multidrug-resistant Klebsiella pneumoniae producing the carbapenem-hydrolysing VIM-1 metallo-Â-lactamase: first Italian outbreak. Journal of Antimicrobial Chemotherapy, 2007, 61, 296-300.	1.3	85
76	Identification and Characterization of a New Metallo-Î²-Lactamase, IND-5, from a Clinical Isolate of Chryseobacterium indologenes. Antimicrobial Agents and Chemotherapy, 2007, 51, 2988-2990.	1.4	17
77	Metallo-Î²-lactamases as emerging resistance determinants in Gram-negative pathogens: open issues. International Journal of Antimicrobial Agents, 2007, 29, 380-388.	1.1	134
78	Major Enzymatic Factors Involved in Bacterial Penicillin Resistance in Burkina Faso. Pakistan Journal of Biological Sciences, 2007, 10, 506-510.	0.2	4
79	New Î²-lactamases: a paradigm for the rapid response of bacterial evolution in the clinical setting. Future Microbiology, 2006, 1, 295-308.	1.0	13
80	Genetic and Biochemical Characterization of FUS-1 (OXA-85), a Narrow-Spectrum Class D Î²-Lactamase from Fusobacterium nucleatum subsp. polymorphum. Antimicrobial Agents and Chemotherapy, 2006, 50, 2673-2679.	1.4	25
81	Postgenomic Scan of Metallo-Î²-Lactamase Homologues in Rhizobacteria: Identification and Characterization of BJP-1, a Subclass B3 Ortholog from Bradyrhizobium japonicum. Antimicrobial Agents and Chemotherapy, 2006, 50, 1973-1981.	1.4	46
82	Clonal Relatedness and Conserved Integron Structures in Epidemiologically Unrelated Pseudomonas aeruginosa Strains Producing the VIM-1 Metallo-Î²-Lactamase from Different Italian Hospitals. Antimicrobial Agents and Chemotherapy, 2005, 49, 104-110.	1.4	64
83	Novel Acquired Metallo-Î²-Lactamase Gene, bla SIM-1 , in a Class 1 Integron from Acinetobacter baumannii Clinical Isolates from Korea. Antimicrobial Agents and Chemotherapy, 2005, 49, 4485-4491.	1.4	293
84	Nosocomial Outbreak Caused by Multidrug-Resistant Pseudomonas aeruginosa Producing IMP-13 Metallo-Î²-Lactamase. Journal of Clinical Microbiology, 2005, 43, 3824-3828.	1.8	76
85	OXA-46, a New Class D Î²-Lactamase of Narrow Substrate Specificity Encoded by a bla VIM-1 -Containing Integron from a Pseudomonas aeruginosa Clinical Isolate. Antimicrobial Agents and Chemotherapy, 2005, 49, 1973-1980.	1.4	33
86	Biochemical Characterization of the THIN-B Metallo-Î²-Lactamase of Janthinobacterium lividum. Antimicrobial Agents and Chemotherapy, 2004, 48, 4778-4783.	1.4	25
87	Emergence in Klebsiella pneumoniae and Enterobacter cloacae Clinical Isolates of the VIM-4 Metallo-Î²-Lactamase Encoded by a Conjugative Plasmid. Antimicrobial Agents and Chemotherapy, 2004, 48, 648-650.	1.4	103
88	Prevalence and characterization of metallo-Î²-lactamases in clinical isolates of pseudomonas aeruginosaâ˜†. Diagnostic Microbiology and Infectious Disease, 2004, 48, 131-135.	0.8	31
89	Expression, purification, crystallization and preliminary X-ray characterization of the class B acid phosphatase (AphA) fromEscherichia coli. Acta Crystallographica Section D: Biological Crystallography, 2003, 59, 1058-1060.	2.5	5
90	Novel 3- N -Aminoglycoside Acetyltransferase Gene, aac (3)- Ic , from a Pseudomonas aeruginosa Integron. Antimicrobial Agents and Chemotherapy, 2003, 47, 1746-1748.	1.4	40

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91	IMP-12, a New Plasmid-Encoded Metallo-Î²-Lactamase from a Pseudomonas putida Clinical Isolate. Antimicrobial Agents and Chemotherapy, 2003, 47, 1522-1528.	1.4	125
92	On functional and structural heterogeneity of VIM-type metallo-beta-lactamases. Journal of Antimicrobial Chemotherapy, 2003, 51, 257-266.	1.3	146
93	Overproduction and Biochemical Characterization of the Chryseobacterium meningosepticum BlaB Metallo-Î²-Lactamase. Antimicrobial Agents and Chemotherapy, 2002, 46, 1921-1927.	1.4	30
94	Simple Microdilution Test for Detection of Metallo-Î²-Lactamase Production in Pseudomonas aeruginosa. Journal of Clinical Microbiology, 2002, 40, 4388-4390.	1.8	77
95	Nosocomial Infections Caused by Multidrug-Resistant Isolates of Pseudomonas putida Producing VIM-1 Metallo-Î²-Lactamase. Journal of Clinical Microbiology, 2002, 40, 4051-4055.	1.8	105
96	CAU-1, a Subclass B3 Metallo-Î²-Lactamase of Low Substrate Affinity Encoded by an Ortholog Present in the Caulobacter crescentus Chromosome. Antimicrobial Agents and Chemotherapy, 2002, 46, 1823-1830.	1.4	58
97	Molecular heterogeneity of blaVIM-2-containing integrons from Pseudomonas aeruginosa plasmids encoding the VIM-2 metallo-Î²-lactamase. FEMS Microbiology Letters, 2001, 195, 145-150.	0.7	11
98	Multidrug-ResistantPseudomonas aeruginosaProducing PER-1 Extended-Spectrum Serine-Î²-Lactamase and VIM-2 Metallo-Î²-Lactamase. Emerging Infectious Diseases, 2001, 7, 910-911.	2.0	40
99	Molecular heterogeneity ofblaVIM-2-containing integrons fromPseudomonas aeruginosaplasmids encoding the VIM-2 metallo-ÃŽÂ²-lactamase. FEMS Microbiology Letters, 2001, 195, 145-150.	0.7	49
100	CENTA as a Chromogenic Substrate for Studying Î²-Lactamases. Antimicrobial Agents and Chemotherapy, 2001, 45, 1868-1871.	1.4	95
101	Purification and Characterization of PBP4a, a New Low-Molecular-Weight Penicillin-Binding Protein from Bacillus subtilis. Journal of Bacteriology, 2001, 183, 1595-1599.	1.0	23
102	Metallo-Î²-Lactamase Producers in Environmental Microbiota: New Molecular Class B Enzyme in Janthinobacterium lividum. Antimicrobial Agents and Chemotherapy, 2001, 45, 837-844.	1.4	83
103	Purification and Biochemical Characterization of the VIM-1 Metallo-Î²-Lactamase. Antimicrobial Agents and Chemotherapy, 2000, 44, 3003-3007.	1.4	83
104	Inducible class C Î²-lactamases produced by psychrophilic bacteria. FEMS Microbiology Letters, 1998, 161, 311-315.	0.7	3
105	Class B Î²-Lactamases. , 0, , 115-144.		11