Walter Fast

List of Publications by Year in descending order

55 papers	2,062 citations	236612 25 h-index	243296 44 g-index
57 all docs	57 docs citations	57 times ranked	2077 citing authors

#	Article	IF	Citations
1	Discovery of an Effective Small-Molecule Allosteric Inhibitor of New Delhi Metallo-Î²-lactamase (NDM). ACS Infectious Diseases, 2022, 8, 811-824.	1.8	4
2	On the kinetic mechanism of dimethylarginine dimethylaminohydrolase (DDAH). Bioorganic and Medicinal Chemistry, 2022, , 116816.	1.4	0
3	Structural insights into the design of reversible fluorescent probes for metallo-Î²-lactamases NDM-1, VIM-2, and IMP-1. Journal of Inorganic Biochemistry, 2022, 233, 111869.	1.5	2
4	Carbapenem Use Is Driving the Evolution of Imipenemase 1 Variants. Antimicrobial Agents and Chemotherapy, 2021, 65, .	1.4	13
5	Cyclobutanone Inhibitor of Cobalt-Functionalized Metallo-Î³-Lactonase AiiA with Cyclobutanone Ring Opening in the Active Site. ACS Omega, 2021, 6, 13567-13578.	1.6	3
6	Visualizing the Dynamic Metalation State of New Delhi Metallo-Î²-lactamase-1 in Bacteria Using a Reversible Fluorescent Probe. Journal of the American Chemical Society, 2021, 143, 8314-8323.	6.6	22
7	Discovery of 4,4â€²-Dipyridylsulfide Analogs as â€œSwitchable Electrophilesâ€•for Covalent Inhibition. ACS Chemical Biology, 2021, 16, 264-269.	1.6	8
8	Elusive structural changes of New Delhi metallo-Î²-lactamase revealed by ultraviolet photodissociation mass spectrometry. Chemical Science, 2020, 11, 8999-9010.	3.7	12
9	MBLinhibitors.com, a Website Resource Offering Information and Expertise for the Continued Development of Metallo-Î²-Lactamase Inhibitors. Biomolecules, 2020, 10, 459.	1.8	8
10	Iminodiacetic Acid as a Novel Metalâ€Binding Pharmacophore for New Delhi Metalloâ€Î²â€lactamase Inhibitor Development. ChemMedChem, 2020, 15, 1272-1282.	1.6	17
11	Investigation of GTP-dependent dimerization of G12X K-Ras variants using ultraviolet photodissociation mass spectrometry. Chemical Science, 2019, 10, 8025-8034.	3.7	21
12	Investigation of Dipicolinic Acid Isosteres for the Inhibition of Metalloâ€Î²â€Lactamases. ChemMedChem, 2019, 14, 1271-1282.	1.6	20
13	A Lysine-Targeted Affinity Label for Serine-Î²-Lactamase Also Covalently Modifies New Delhi Metallo-Î²-lactamase-1 (NDM-1). Biochemistry, 2019, 58, 2834-2843.	1.2	21
14	Development of a Suicide Inhibition-Based Protein Labeling Strategy for Nicotinamide N-Methyltransferase. ACS Chemical Biology, 2019, 14, 613-618.	1.6	11
15	A Single Salt Bridge in VIM-20 Increases Protein Stability and Antibiotic Resistance under Low-Zinc Conditions. MBio, 2019, 10, .	1.8	16
16	The Taxonomy of Covalent Inhibitors. Biochemistry, 2018, 57, 3326-3337.	1.2	83
17	The Continuing Challenge of Metallo-Î²-Lactamase Inhibition: Mechanism Matters. Trends in Pharmacological Sciences, 2018, 39, 635-647.	4.0	113
18	Probing the Interaction of Aspergillomarasmine A with Metallo-Î²-lactamases NDM-1, VIM-2, and IMP-7. ACS Infectious Diseases, 2018, 4, 135-145.	1.8	48

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19	Dissection, Optimization, and Structural Analysis of a Covalent Irreversible DDAH1 Inhibitor. Biochemistry, 2018, 57, 4574-4582.	1.2	4
20	Evolution of New Delhi metallo-Î²-lactamase (NDM) in the clinic: Effects of NDM mutations on stability, zinc affinity, and mono-zinc activity. Journal of Biological Chemistry, 2018, 293, 12606-12618.	1.6	79
21	Substrate Trapping in the Siderophore Tailoring Enzyme PvdQ. ACS Chemical Biology, 2017, 12, 643-647.	1.6	6
22	Selective Covalent Protein Modification by 4â€Halopyridines through Catalysis. ChemBioChem, 2017, 18, 1551-1556.	1.3	12
23	Clinical Variants of New Delhi Metallo-Î²-Lactamase Are Evolving To Overcome Zinc Scarcity. ACS Infectious Diseases, 2017, 3, 927-940.	1.8	49
24	Dipicolinic Acid Derivatives as Inhibitors of New Delhi Metallo-Î²-lactamase-1. Journal of Medicinal Chemistry, 2017, 60, 7267-7283.	2.9	120
25	New Delhi Metalloâ€Betaâ€Lactamase Variants NDMâ€4 and NDMâ€12 from E. coli Clinical Isolates Exhibit Increased Activity and Stability. FASEB Journal, 2017, 31, 777.21.	0.2	0
26	Impact of G12 Mutations on the Structure of K-Ras Probed by Ultraviolet Photodissociation Mass Spectrometry. Journal of the American Chemical Society, 2016, 138, 13187-13196.	6.6	38
27	B1-Metallo-Î²-Lactamases: Where Do We Stand?. Current Drug Targets, 2016, 17, 1029-1050.	1.0	158
28	Structural and Biochemical Characterization of AidC, a Quorum-Quenching Lactonase with Atypical Selectivity. Biochemistry, 2015, 54, 4342-4353.	1.2	19
29	Developing an Irreversible Inhibitor of Human DDAHâ€1, an Enzyme Upregulated in Melanoma. ChemMedChem, 2014, 9, 792-797.	1.6	23
30	Covalent Inhibition of New Delhi Metalloâ€Î²â€Lactamaseâ€1 (NDMâ€1) by Cefaclor. ChemBioChem, 2014, 15, 2541-2548.	1.3	38
31	n-Alkylboronic Acid Inhibitors Reveal Determinants of Ligand Specificity in the Quorum-Quenching and Siderophore Biosynthetic Enzyme PvdQ. Biochemistry, 2014, 53, 6679-6686.	1.2	17
32	A Phenylalanine Clamp Controls Substrate Specificity in the Quorum-Quenching Metallo-Î³-lactonase from Bacillus thuringiensis. Biochemistry, 2013, 52, 1603-1610.	1.2	30
33	An altered zinc-binding site confers resistance to a covalent inactivator of New Delhi metallo-beta-lactamase-1 (NDM-1) discovered by high-throughput screening. Bioorganic and Medicinal Chemistry, 2013, 21, 3138-3146.	1.4	40
34	Metallo-Î²-lactamase: Inhibitors and reporter substrates. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2013, 1834, 1648-1659.	1.1	91
35	Rational Design of a Transition State Analogue with Picomolar Affinity for Pseudomonas aeruginosa PvdQ, a Siderophore Biosynthetic Enzyme. ACS Chemical Biology, 2013, 8, 2192-2200.	1.6	41
36	Discovery of structurally-diverse inhibitor scaffolds by high-throughput screening of a fragment library with dimethylarginine dimethylaminohydrolase. Bioorganic and Medicinal Chemistry, 2012, 20, 5550-5558.	1.4	13

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37	The enzymes of bacterial census and censorship. Trends in Biochemical Sciences, 2012, 37, 7-14.	3.7	35
38	Discovery of Halopyridines as Quiescent Affinity Labels: Inactivation of Dimethylarginine Dimethylaminohydrolase. Journal of the American Chemical Society, 2011, 133, 1553-1562.	6.6	30
39	On the Mechanism of Dimethylarginine Dimethylaminohydrolase Inactivation by 4-Halopyridines. Journal of the American Chemical Society, 2011, 133, 10951-10959.	6.6	19
40	Characterization of Purified New Delhi Metallo-Î²-lactamase-1. Biochemistry, 2011, 50, 10102-10113.	1.2	114
41	Heterologous Overexpression, Purification, and In Vitro Characterization of AHL Lactonases. Methods in Molecular Biology, 2011, 692, 275-290.	0.4	14
42	Characterization of Câ€Alkyl Amidines as Bioavailable Covalent Reversible Inhibitors of Human DDAHâ€1. ChemMedChem, 2011, 6, 81-88.	1.6	16
43	A Continuous, Fluorescent, High-Throughput Assay for Human Dimethylarginine Dimethylaminohydrolase-1. Journal of Biomolecular Screening, 2011, 16, 1089-1097.	2.6	12
44	Mechanistic similarity and diversity among the guanidine-modifying members of the pentein superfamily. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2010, 1804, 1943-1953.	1.1	30
45	A Click Chemistry Mediated in Vivo Activity Probe for Dimethylarginine Dimethylaminohydrolase. Journal of the American Chemical Society, 2009, 131, 15096-15097.	6.6	23
46	Developing Dual and Specific Inhibitors of Dimethylarginine Dimethylaminohydrolase-1 and Nitric Oxide Synthase: Toward a Targeted Polypharmacology To Control Nitric Oxide. Biochemistry, 2009, 48, 8624-8635.	1.2	32
47	Mechanism of the Quorum-Quenching Lactonase (AiiA) from Bacillus thuringiensis. 2. Substrate Modeling and Active Site Mutations. Biochemistry, 2008, 47, 7715-7725.	1.2	87
48	Mechanism of the Quorum-Quenching Lactonase (AiiA) from Bacillus thuringiensis. 1. Product-Bound Structures. Biochemistry, 2008, 47, 7706-7714.	1.2	92
49	Inhibition of Human Dimethylarginine Dimethylaminohydrolase-1 by S-Nitroso-L-homocysteine and Hydrogen Peroxide. Journal of Biological Chemistry, 2007, 282, 34684-34692.	1.6	52
50	The Quorum-Quenching Metallo-Î³-lactonase fromBacillus thuringiensisExhibits a Leaving Group Thio Effectâ€. Biochemistry, 2006, 45, 13385-13393.	1.2	30
51	Substrate-Assisted Cysteine Deprotonation in the Mechanism of Dimethylargininase (DDAH) from Pseudomonas aeruginosa. Biochemistry, 2006, 45, 5618-5630.	1.2	48
52	A continuous spectrophotometric assay for dimethylarginine dimethylaminohydrolase. Analytical Biochemistry, 2005, 343, 335-337.	1.1	12
53	Three-dimensional structure of the quorum-quenching N-acyl homoserine lactone hydrolase from Bacillus thuringiensis. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 11882-11887.	3.3	117
54	Inactivation of Two Diverse Enzymes in the Amidinotransferase Superfamily by 2-Chloroacetamidine:Â Dimethylargininase and Peptidylarginine Deiminaseâ€. Biochemistry, 2005, 44, 13744-13752.	1.2	78

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55	Molecular Radio Jamming. Chemistry and Biology, 2003, 10, 1-2.	6.2	20