Jed F Fisher

List of Publications by Year
in descending order

89 papers	5,743 citations	101384 36 h-index	79541 73 g-index
95 all docs	95 docs citations	95 times ranked	6404 citing authors

#	Article	IF	Citations
1	Bacterial Resistance to Î²-Lactam Antibiotics:â€‰ Compelling Opportunism, Compelling Opportunity. Chemical Reviews, 2005, 105, 395-424.	23.0	795
2	Three-dimensional structure of the bacterial cell wall peptidoglycan. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 4404-4409.	3.3	371
3	Epidemiological Expansion, Structural Studies, and Clinical Challenges of New Î²-Lactamases from Gram-Negative Bacteria. Annual Review of Microbiology, 2011, 65, 455-478.	2.9	367
4	Bacterial cellâ€wall recycling. Annals of the New York Academy of Sciences, 2013, 1277, 54-75.	1.8	246
5	.beta.-Lactamase proceeds via an acyl-enzyme intermediate. Interaction of the Escherichia coli RTEM enzyme with cefoxitin. Biochemistry, 1980, 19, 2895-2901.	1.2	241
6	Recent advances in MMP inhibitor design. Cancer and Metastasis Reviews, 2006, 25, 115-136.	2.7	241
7	How allosteric control of <i>Staphylococcus aureus</i> penicillin binding protein 2a enables methicillin resistance and physiological function. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 16808-16813.	3.3	235
8	Kinetic studies on the inactivation of Escherichia coli RTEM Î²-lactamase by clavulanic acid. Biochemistry, 1978, 17, 2180-2184.	1.2	190
9	Î²-Lactam resistance in Staphylococcus aureus: the adaptive resistance of a plastic genome. Cellular and Molecular Life Sciences, 2005, 62, 2617-2633.	2.4	161
10	Cell-Wall Recycling of the Gram-Negative Bacteria and the Nexus to Antibiotic Resistance. Chemical Reviews, 2018, 118, 5952-5984.	23.0	154
11	Ab Initio QM/MM Study of Class A Î²-Lactamase Acylation:â€‰ Dual Participation of Glu166 and Lys73 in a Concerted Base Promotion of Ser70. Journal of the American Chemical Society, 2005, 127, 15397-15407.	6.6	153
12	The future of the Î²-lactams. Current Opinion in Microbiology, 2010, 13, 551-557.	2.3	149
13	Chemical studies on the inactivation of Escherichia coli RTEM Î²-lactamase by clavulanic acid. Biochemistry, 1978, 17, 2185-2189.	1.2	132
14	Inactivation of the RTEM .beta.-lactamase from Escherichia coli. Interaction of penam sulfones with the enzyme. Biochemistry, 1981, 20, 2726-2731.	1.2	120
15	Lytic transglycosylases: concinnity in concision of the bacterial cell wall. Critical Reviews in Biochemistry and Molecular Biology, 2017, 52, 503-542.	2.3	120
16	Molecular Basis and Phenotype of Methicillin Resistance in <i>Staphylococcus aureus</i> and Insights into New Î²-Lactams That Meet the Challenge. Antimicrobial Agents and Chemotherapy, 2009, 53, 4051-4063.	1.4	117
17	Peptide to glycopeptide: glycosylated oligopeptide renin inhibitors with attenuated in vivo clearance properties. Journal of Medicinal Chemistry, 1991, 34, 3140-3143.	2.9	109
18	Molecular Structures and Dynamics of the Stepwise Activation Mechanism of a Matrix Metalloproteinase Zymogen:â€‰ Challenging the Cysteine Switch Dogma. Journal of the American Chemical Society, 2007, 129, 13566-13574.	6.6	87

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19	Messenger Functions of the Bacterial Cell Wall-derived Muropeptides. Biochemistry, 2012, 51, 2974-2990.	1.2	80
20	The sentinel role of peptidoglycan recycling in the Î²-lactam resistance of the Gram-negative Enterobacteriaceae and Pseudomonas aeruginosa. Bioorganic Chemistry, 2014, 56, 41-48.	2.0	70
21	Inhibition of Histone Deacetylases: A Pharmacological Approach to the Treatment of Non-Cancer Disorders. Current Topics in Medicinal Chemistry, 2009, 9, 257-271.	1.0	66
22	Conformational Dynamics in Penicillin-Binding Protein 2a of Methicillin-Resistant <i>Staphylococcus aureus</i>, Allosteric Communication Network and Enablement of Catalysis. Journal of the American Chemical Society, 2017, 139, 2102-2110.	6.6	65
23	Three Decades of the Class A β-Lactamase Acyl-Enzyme. Current Protein and Peptide Science, 2009, 10, 401-407.	0.7	64
24	Autocatalytic quinone methide formation from mitomycin c. Biochemistry, 1986, 25, 4077-4084.	1.2	62
25	Matrix Metalloproteinase 2 Inhibition: Combined Quantum Mechanics and Molecular Mechanics Studies of the Inhibition Mechanism of (4-Phenoxyphenylsulfonyl)methylthiirane and Its Oxirane Analogue. Biochemistry, 2009, 48, 9839-9847.	1.2	62
26	Acquired Class D Î²-Lactamases. Antibiotics, 2014, 3, 398-434.	1.5	61
27	Î²-Lactam Resistance Mechanisms: Gram-Positive Bacteria and<i>Mycobacterium tuberculosis</i>. Cold Spring Harbor Perspectives in Medicine, 2016, 6, a025221.	2.9	56
28	Discrete steps in sensing of beta-lactam antibiotics by the BlaR1 protein of the methicillin-resistant Staphylococcus aureus bacterium. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 10630-10635.	3.3	52
29	Î²-Lactams against the Fortress of the Gram-Positive <i>Staphylococcus aureus</i> Bacterium. Chemical Reviews, 2021, 121, 3412-3463.	23.0	52
30	From Genome to Proteome to Elucidation of Reactions for All Eleven Known Lytic Transglycosylases from <i>Pseudomonas aeruginosa</i>. Angewandte Chemie - International Edition, 2017, 56, 2735-2739.	7.2	50
31	Three-dimensional QSAR analysis and design of new 1,2,4-oxadiazole antibacterials. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 1011-1015.	1.0	48
32	Active Site Ringâ€Opening of a Thiirane Moiety and Picomolar Inhibition of Gelatinases. Chemical Biology and Drug Design, 2009, 74, 527-534.	1.5	46
33	Reductive Drug Metabolism. Drug Metabolism Reviews, 1983, 14, 741-799.	1.5	43
34	Muropeptide Binding and the X-ray Structure of the Effector Domain of the Transcriptional Regulator AmpR of <i>Pseudomonas aeruginosa</i>. Journal of the American Chemical Society, 2017, 139, 1448-1451.	6.6	42
35	Structure and Cell Wall Cleavage by Modular Lytic Transglycosylase MltC of <i>Escherichia coli</i>. ACS Chemical Biology, 2014, 9, 2058-2066.	1.6	41
36	Constructing and deconstructing the bacterial cell wall. Protein Science, 2020, 29, 629-646.	3.1	41

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37	The bifunctional enzymes of antibiotic resistance. Current Opinion in Microbiology, 2009, 12, 505-511.	2.3	40
38	Structural Analysis of the Role of Pseudomonas aeruginosa Penicillin-Binding Protein 5 in Î²-Lactam Resistance. Antimicrobial Agents and Chemotherapy, 2013, 57, 3137-3146.	1.4	40
39	Endless resistance. Endless antibiotics?. MedChemComm, 2016, 7, 37-49.	3.5	39
40	Inhibitors for Bacterial Cell-Wall Recycling. ACS Medicinal Chemistry Letters, 2012, 3, 238-242.	1.3	36
41	Investigation of the Mechanism of the Cell Wall dd-Carboxypeptidase Reaction of Penicillin-Binding Protein 5 of Escherichia coli by Quantum Mechanics/Molecular Mechanics Calculations. Journal of the American Chemical Society, 2008, 130, 9293-9303.	6.6	35
42	Catalytic Spectrum of the Penicillin-Binding Protein 4 of <i>Pseudomonas aeruginosa</i>, a Nexus for the Induction of Î²-Lactam Antibiotic Resistance. Journal of the American Chemical Society, 2015, 137, 190-200.	6.6	32
43	Slt, MltD, and MltG of <i>Pseudomonas aeruginosa</i> as Targets of Bulgecin A in Potentiation of Î²-Lactam Antibiotics. ACS Chemical Biology, 2019, 14, 296-303.	1.6	28
44	Evaluation of the Bile Acid Transporter in Enhancing Intestinal Permeability to Renin-Inhibitory Peptides. Journal of Drug Targeting, 1993, 1, 347-359.	2.1	27
45	A Computational Evaluation of the Mechanism of Penicillin-Binding Protein-Catalyzed Cross-Linking of the Bacterial Cell Wall. Journal of the American Chemical Society, 2011, 133, 5274-5283.	6.6	27
46	Activation by Allostery in Cell-Wall Remodeling by a Modular Membrane-Bound Lytic Transglycosylase from Pseudomonas aeruginosa. Structure, 2016, 24, 1729-1741.	1.6	27
47	Total Syntheses of Bulgecins A, B, and C and Their Bactericidal Potentiation of the Î²-Lactam Antibiotics. ACS Infectious Diseases, 2018, 4, 860-867.	1.8	27
48	Mechanism of the Escherichia coli MltE lytic transglycosylase, the cell-wall-penetrating enzyme for Type VI secretion system assembly. Scientific Reports, 2018, 8, 4110.	1.6	27
49	The Tipperâ€“Strominger Hypothesis and Triggering of Allostery in Penicillin-Binding Protein 2a of Methicillin-Resistant <i>Staphylococcus aureus</i> (MRSA). Journal of the American Chemical Society, 2015, 137, 6500-6505.	6.6	26
50	DFT Studies of the Ring-Opening Mechanism of SB-3CT, a Potent Inhibitor of Matrix Metalloproteinase 2. Organic Letters, 2009, 11, 2559-2562.	2.4	23
51	Mechanism-Based Profiling of MMPs. Methods in Molecular Biology, 2010, 622, 471-487.	0.4	23
52	QM/MM Studies of the Matrix Metalloproteinase 2 (MMP2) Inhibition Mechanism of (<i>S</i>)-SB-3CT and its Oxirane Analogue. Journal of Chemical Theory and Computation, 2010, 6, 3580-3587.	2.3	23
53	Matrix Metalloproteinase 2 (MMP2) Inhibition: DFT and QM/MM Studies of the Deprotonation-Initialized Ring-Opening Reaction of the Sulfoxide Analogue of SB-3CT. Journal of Physical Chemistry B, 2010, 114, 1030-1037.	1.2	20
54	Use of Silver Carbonate in the Wittig Reaction. Journal of Organic Chemistry, 2013, 78, 12224-12228.	1.7	19

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55	Chapter 25. Bacterial Resistance to Î²-Lactams: The Î²-Lactamases. Annual Reports in Medicinal Chemistry, 1978, , 239-248.	0.5	18
56	Regioselective Control of the S_NAr Amination of 5-Substituted-2,4-Dichloropyrimidines Using Tertiary Amine Nucleophiles. Journal of Organic Chemistry, 2015, 80, 7757-7763.	1.7	18
57	Hostâˆ'Guest Chemistry of the Peptidoglycan. Journal of Medicinal Chemistry, 2010, 53, 4813-4829.	2.9	17
58	Appraisal of a glycopeptide cloaking strategy for a therapeutic oligopeptide: Glycopeptide analogs of the renin inhibitor ditekiren. Bioorganic and Medicinal Chemistry, 1994, 2, 1339-1361.	1.4	13
59	Synthesis and NMR Characterization of (<i>Z</i>,<i>Z</i>,<i>Z</i>,<i>Z</i>,<i>E</i>,<i>E</i>,Ï‰)-Heptaprenol. Journal of the American Chemical Society, 2012, 134, 13881-13888.	6.6	12
60	Catalytic Cycle of Glycoside Hydrolase BglX from <i>Pseudomonas aeruginosa</i> and Its Implications for Biofilm Formation. ACS Chemical Biology, 2020, 15, 189-196.	1.6	11
61	Cinnamonitrile Adjuvants Restore Susceptibility to Î²-Lactams against Methicillin-Resistant Staphylococcus aureus. ACS Medicinal Chemistry Letters, 2019, 10, 1148-1153.	1.3	10
62	Enzymology of Bacterial Resistance. , 2010, , 443-487.		9
63	Protonation states of activeâ€site lysines of penicillinâ€binding protein 6 from <i>Escherichia coli</i> and the mechanistic implications. Proteins: Structure, Function and Bioinformatics, 2014, 82, 1348-1358.	1.5	9
64	Conformational analyses of thiirane-based gelatinase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 3064-3067.	1.0	8
65	Elucidation of the Structure of the Membrane Anchor of Penicillin-Binding Protein 5 of Escherichia coli. Journal of the American Chemical Society, 2010, 132, 4110-4118.	6.6	8
66	Allosteric Inhibition of Bacterial Targets: An Opportunity for Discovery of Novel Antibacterial Classes. Topics in Medicinal Chemistry, 2017, , 119-147.	0.4	7
67	Fluorescence Assessment of the AmpR-Signaling Network of <i>Pseudomonas aeruginosa</i> to Exposure to Î²-Lactam Antibiotics. ACS Chemical Biology, 2020, 15, 1184-1194.	1.6	7
68	The Î²-Lactam Antibiotics: Their Future in the Face of Resistance. , 2014, , 59-84.		7
69	Exploring the functional space of thiiranes as gelatinase inhibitors using click chemistry. Arkivoc, 2011, 2011, 221-236.	0.3	7
70	Noncovalent binding of a mitomycin C metabolite, 2,7-diaminomitosene, to duplex DNA. Cancer Letters, 1995, 90, 133-138.	3.2	5
71	Exploration of mild copper-mediated coupling of organotrifluoroborates in the synthesis of thiirane-based inhibitors of matrix metalloproteinases. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 2675-2678.	1.0	5
72	From Genome to Proteome to Elucidation of Reactions for All Eleven Known Lytic Transglycosylases from <i>Pseudomonas aeruginosa</i>. Angewandte Chemie, 2017, 129, 2779-2783.	1.6	5

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73	Synthesis and shift-reagent-assisted full NMR assignment of bacterial (Z8,E2,ï‰)-undecaprenol. Chemical Communications, 2017, 53, 12774-12777.	2.2	5
74	Bacterial Cell Wall: Morphology and Biochemistry. , 2021, , 167-204.		5
75	Metabolism of the Selective Matrix Metalloproteinase-9 Inhibitor (<i>R</i>)-ND-336. ACS Pharmacology and Translational Science, 2021, 4, 1204-1213.	2.5	4
76	Chapter 3. The Î²-Lactam (Azetidin-2-one) as a Privileged Ring in Medicinal Chemistry. RSC Drug Discovery Series, 2015, , 64-97.	0.2	4
77	Synthesis of Î±-hydroxy-Î²-acetylenic acids and their oxidation by and inactivation of flavoprotein oxidases. Journal of the Chemical Society Chemical Communications, 1974, , 597-598.	2.0	3
78	The mechanism of adduct formation between reduced flavins and arene epoxides. Journal of Organic Chemistry, 1993, 58, 3712-3721.	1.7	3
79	A Mechanistic Study of the Dihydroflavin Reductive Cleavage of the Dihydroflavinâ€"Tetrahydronaphthalene Epoxide Adducts. Bioorganic Chemistry, 2000, 28, 163-175.	2.0	3
80	Bacterial Cell Wall: Morphology and Biochemistry. , 2015, , 221-264.		3
81	Bacterial Resistance to Î²-Lactam Antibiotics: Compelling Opportunism, Compelling Opportunity. ChemInform, 2005, 36, no.	0.1	2
82	A Structural Dissection of the Active Site of the Lytic Transglycosylase MltE from <i>Escherichia coli</i>. Biochemistry, 2018, 57, 6090-6098.	1.2	2
83	A positive positive to negative. Nature Chemistry, 2018, 10, 998-1000.	6.6	2
84	Integrative structural biology of the penicillin-binding protein-1 from Staphylococcus aureus, an essential component of the divisome machinery. Computational and Structural Biotechnology Journal, 2021, 19, 5392-5405.	1.9	2
85	Ensemble of Pinanones from the Permanganate Oxidation of Myrtenal. Journal of Organic Chemistry, 2016, 81, 5705-5709.	1.7	1
86	Penicillin-Binding Protein 5 of Escherichia coli. , 2013, , 3474-3480.		0
87	Strategies for Circumventing Bacterial Resistance Mechanisms. , 2014, , 1-29.		0
88	Structureâ€"Activity Relationship for the Picolinamide Antibacterials that Selectively Target Clostridioides difficile. ACS Medicinal Chemistry Letters, 2021, 12, 991-995.	1.3	0
89	Strategies for Circumventing Bacterial Resistance Mechanisms. , 2017, , 231-261.		0