

Klaas M Pos

List of Publications by Year in descending order

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68
papers

5,016
citations

126907

33
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98798

67
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all docs

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docs citations

70
times ranked

4538
citing authors

#	ARTICLE	IF	CITATIONS
1	Pyridylpiperazine-based allosteric inhibitors of RND-type multidrug efflux pumps. <i>Nature Communications</i> , 2022, 13, 115.	12.8	28
2	Unidirectional mannitol synthesis of <i>Acinetobacter baumannii</i> MtlD is facilitated by the helix-loop-helix-mediated dimer formation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, e2107994119.	7.1	2
3	Structural characterization of the EmrAB-TolC efflux complex from <i>E. coli</i> . <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2021, 1863, 183488.	2.6	17
4	Structure, Assembly, and Function of Tripartite Efflux and Type 1 Secretion Systems in Gram-Negative Bacteria. <i>Chemical Reviews</i> , 2021, 121, 5479-5596.	47.7	103
5	Allosteric drug transport mechanism of multidrug transporter AcrB. <i>Nature Communications</i> , 2021, 12, 3889.	12.8	41
6	Binding of Tetracyclines to <i>Acinetobacter baumannii</i> TetR Involves Two Arginines as Specificity Determinants. <i>Frontiers in Microbiology</i> , 2021, 12, 711158.	3.5	7
7	Structural and functional analysis of the promiscuous AcrB and AdeB efflux pumps suggests different drug binding mechanisms. <i>Nature Communications</i> , 2021, 12, 6919.	12.8	25
8	Characterization and Molecular Determinants for β -Lactam Specificity of the Multidrug Efflux Pump AcrD from <i>Salmonella typhimurium</i> . <i>Antibiotics</i> , 2021, 10, 1494.	3.7	4
9	AcrB: a mean, keen, drug efflux machine. <i>Annals of the New York Academy of Sciences</i> , 2020, 1459, 38-68.	3.8	99
10	Binding and Transport of Carboxylated Drugs by the Multidrug Transporter AcrB. <i>Journal of Molecular Biology</i> , 2020, 432, 861-877.	4.2	37
11	A novel method to determine antibiotic sensitivity in <i>Bdellovibrio bacteriovorus</i> reveals a DHFR-dependent natural trimethoprim resistance. <i>Scientific Reports</i> , 2020, 10, 5315.	3.3	12
12	Tigecycline efflux in <i>Acinetobacter baumannii</i> is mediated by TetA in synergy with RND-type efflux transporters. <i>Journal of Antimicrobial Chemotherapy</i> , 2020, 75, 1135-1139.	3.0	36
13	Antimicrobial Sensitivity Assay for <i>Bdellovibrio bacteriovorus</i> . <i>Bio-protocol</i> , 2020, 10, e3865.	0.4	0
14	The chloramphenicol/H ⁺ antiporter CraA of <i>Acinetobacter baumannii</i> AYE reveals a broad substrate specificity. <i>Journal of Antimicrobial Chemotherapy</i> , 2019, 74, 1192-1201.	3.0	11
15	Identification of the novel class D β -lactamase OXA-679 involved in carbapenem resistance in <i>Acinetobacter calcoaceticus</i> . <i>Journal of Antimicrobial Chemotherapy</i> , 2019, 74, 1494-1502.	3.0	7
16	Identification and characterization of carbapenem binding sites within the RND-transporter AcrB. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2019, 1861, 62-74.	2.6	18
17	A New Critical Conformational Determinant of Multidrug Efflux by an MFS Transporter. <i>Journal of Molecular Biology</i> , 2018, 430, 1368-1385.	4.2	27
18	High-Resolution Crystallographic Analysis of AcrB Using Designed Ankyrin Repeat Proteins (DARPs). <i>Methods in Molecular Biology</i> , 2018, 1700, 3-24.	0.9	3

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19	Bacterial efflux transporters in the limelight. <i>Research in Microbiology</i> , 2018, 169, 349-350.	2.1	0
20	Multidrug efflux pumps: structure, function and regulation. <i>Nature Reviews Microbiology</i> , 2018, 16, 523-539.	28.6	580
21	Crystal structure and mechanistic basis of a functional homolog of the antigen transporter TAP. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E438-E447.	7.1	67
22	Mechanisms of envelope permeability and antibiotic influx and efflux in Gram-negative bacteria. <i>Nature Microbiology</i> , 2017, 2, 17001.	13.3	238
23	Switch Loop Flexibility Affects Substrate Transport of the AcrB Efflux Pump. <i>Journal of Molecular Biology</i> , 2017, 429, 3863-3874.	4.2	33
24	Dynamics of Intact MexAB-OprM Efflux Pump: Focusing on the MexA-OprM Interface. <i>Scientific Reports</i> , 2017, 7, 16521.	3.3	30
25	Cytochrome c Oxidase Biogenesis and Metallochaperone Interactions: Steps in the Assembly Pathway of a Bacterial Complex. <i>PLoS ONE</i> , 2017, 12, e0170037.	2.5	23
26	Editorial: Bad Bugs in the XXIst Century: Resistance Mediated by Multi-Drug Efflux Pumps in Gram-Negative Bacteria. <i>Frontiers in Microbiology</i> , 2016, 7, 833.	3.5	26
27	BGA66 and BGA71 facilitate complement resistance of <i>Borrelia bavariensis</i> by inhibiting assembly of the membrane attack complex. <i>Molecular Microbiology</i> , 2016, 99, 407-424.	2.5	63
28	Transport of lipophilic carboxylates is mediated by transmembrane helix 2 in multidrug transporter AcrB. <i>Nature Communications</i> , 2016, 7, 13819.	12.8	51
29	Tripartite assembly of RND multidrug efflux pumps. <i>Nature Communications</i> , 2016, 7, 10731.	12.8	166
30	Molecular basis for inhibition of AcrB multidrug efflux pump by novel and powerful pyranopyridine derivatives. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2016, 113, 3509-3514.	7.1	172
31	Molecular basis of polyspecificity of the Small Multidrug Resistance Efflux Pump AbeS from <i>Acinetobacter baumannii</i> . <i>Journal of Molecular Biology</i> , 2016, 428, 644-657.	4.2	24
32	Approved Drugs Containing Thiols as Inhibitors of Metallo- β -lactamases: Strategy To Combat Multidrug-Resistant Bacteria. <i>Journal of Medicinal Chemistry</i> , 2015, 58, 3626-3630.	6.4	127
33	Structure, mechanism and cooperation of bacterial multidrug transporters. <i>Current Opinion in Structural Biology</i> , 2015, 33, 76-91.	5.7	129
34	The assembly and disassembly of the AcrAB-TolC three-component multidrug efflux pump. <i>Biological Chemistry</i> , 2015, 396, 1083-1089.	2.5	23
35	Coupling of remote alternating-access transport mechanisms for protons and substrates in the multidrug efflux pump AcrB. <i>ELife</i> , 2014, 3, .	6.0	137
36	Switch-Loop Flexibility Affects Transport of Large Drugs by the Promiscuous AcrB Multidrug Efflux Transporter. <i>Antimicrobial Agents and Chemotherapy</i> , 2014, 58, 4767-4772.	3.2	52

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37	Detecting Substrates Bound to the Secondary Multidrug Efflux Pump EmrE by DNP-Enhanced Solid-State NMR. <i>Journal of the American Chemical Society</i> , 2013, 135, 15754-15762.	13.7	51
38	The Outer Membrane TolC-like Channel HgdD Is Part of Tripartite Resistance-Nodulation-Cell Division (RND) Efflux Systems Conferring Multiple-drug Resistance in the Cyanobacterium <i>Anabaena</i> sp. PCC7120. <i>Journal of Biological Chemistry</i> , 2013, 288, 31192-31205.	3.4	22
39	RND Efflux Pumps: Structural Information Translated into Function and Inhibition Mechanisms. <i>Current Topics in Medicinal Chemistry</i> , 2013, 13, 3079-3100.	2.1	122
40	Transport of drugs by the multidrug transporter AcrB involves an access and a deep binding pocket that are separated by a switch-loop. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 5687-5692.	7.1	285
41	Effect of the F610A Mutation on Substrate Extrusion in the AcrB Transporter: Explanation and Rationale by Molecular Dynamics Simulations. <i>Journal of the American Chemical Society</i> , 2011, 133, 10704-10707.	13.7	79
42	A natural prodrug activation mechanism in nonribosomal peptide synthesis. <i>Nature Chemical Biology</i> , 2011, 7, 888-890.	8.0	118
43	Analysis of AcrB and AcrB/DARPin ligand complexes by LILBID MS. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2011, 1808, 2189-2196.	2.6	20
44	Drug Resistance: A Periplasmic MÃ©nage Å Trois. <i>Chemistry and Biology</i> , 2011, 18, 405-407.	6.0	4
45	The use of novel organic gels and hydrogels in protein crystallization. <i>Journal of Applied Crystallography</i> , 2010, 43, 58-63.	4.5	18
46	Trinity revealed: Stoichiometric complex assembly of a bacterial multidrug efflux pump. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 6893-6894.	7.1	18
47	Structural and functional aspects of the multidrug efflux pump AcrB. <i>Biological Chemistry</i> , 2009, 390, 693-699.	2.5	50
48	Drug transport mechanism of the AcrB efflux pump. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2009, 1794, 782-793.	2.3	256
49	Crucial Role of Asp408 in the Proton Translocation Pathway of Multidrug Transporter AcrB: Evidence from Site-Directed Mutagenesis and Carbodiimide Labeling. <i>Biochemistry</i> , 2009, 48, 5801-5812.	2.5	74
50	Engineered disulfide bonds support the functional rotation mechanism of multidrug efflux pump AcrB. <i>Nature Structural and Molecular Biology</i> , 2008, 15, 199-205.	8.2	142
51	Site-Directed Mutagenesis Reveals Putative Substrate Binding Residues in the <i>Escherichia coli</i> RND Efflux Pump AcrB. <i>Journal of Bacteriology</i> , 2008, 190, 8225-8229.	2.2	126
52	Molecular Analysis of BcrR, a Membrane-bound Bacitracin Sensor and DNA-binding Protein from <i>Enterococcus faecalis</i> . <i>Journal of Biological Chemistry</i> , 2008, 283, 8591-8600.	3.4	23
53	The AcrB Efflux Pump: Conformational Cycling and Peristalsis Lead to Multidrug Resistance. <i>Current Drug Targets</i> , 2008, 9, 729-749.	2.1	116
54	Functional characterization of a NapA Na ⁺ /H ⁺ -antiporter from <i>Thermus thermophilus</i> . <i>FEBS Letters</i> , 2007, 581, 572-578.	2.8	17

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55	Structural Asymmetry of AcrB Trimer Suggests a Peristaltic Pump Mechanism. <i>Science</i> , 2006, 313, 1295-1298.	12.6	512
56	Basolateral aromatic amino acid transporter TAT1 (Slc16a10) functions as an efflux pathway. <i>Journal of Cellular Physiology</i> , 2006, 206, 771-779.	4.1	81
57	Identification of a domain in the $\hat{1}$ -subunit of the oxaloacetate decarboxylase Na ⁺ pump that accomplishes complex formation with the $\hat{3}$ -subunit. <i>FEBS Journal</i> , 2005, 272, 846-855.	4.7	16
58	Oxaloacetate decarboxylase of <i>Archaeoglobus fulgidus</i> : cloning of genes and expression in <i>Escherichia coli</i> . <i>Archives of Microbiology</i> , 2004, 182, 414-420.	2.2	7
59	Crystallographic analysis of AcrB. <i>FEBS Letters</i> , 2004, 564, 333-339.	2.8	36
60	An antibody library for stabilizing and crystallizing membrane proteins - selecting binders to the citrate carrier CitS. <i>FEBS Letters</i> , 2004, 564, 340-348.	2.8	43
61	Characterization of the citrate/acetate antiporter CitW of <i>Klebsiella pneumoniae</i> . <i>Archives of Microbiology</i> , 2002, 177, 500-506.	2.2	19
62	Purification, crystallization and preliminary diffraction studies of AcrB, an inner-membrane multi-drug efflux protein. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2002, 58, 1865-1867.	2.5	40
63	Role of conserved residues within helices IV and VIII of the oxaloacetate decarboxylase $\hat{2}$ -subunit in the energy coupling mechanism of the Na ⁺ pump. <i>FEBS Journal</i> , 2002, 269, 2997-3004.	0.2	17
64	The Na ⁺ -dependent citrate carrier of <i>Klebsiella pneumoniae</i> : high-level expression and site-directed mutagenesis of asparagine-185 and glutamate-194. <i>Archives of Microbiology</i> , 2000, 174, 67-73.	2.2	15
65	Identification of an Na ⁺ -Dependent Malonate Transporter of <i>Malonomonas rubra</i> and Its Dependence on Two Separate Genes. <i>Journal of Bacteriology</i> , 1998, 180, 2689-2693.	2.2	14
66	The <i>Escherichia coli</i> Citrate Carrier CitT: a Member of a Novel Eubacterial Transporter Family Related to the 2-Oxoglutarate/Malate Translocator from Spinach Chloroplasts. <i>Journal of Bacteriology</i> , 1998, 180, 4160-4165.	2.2	110
67	Purification of two active fusion proteins of the Na ⁺ -dependent citrate carrier of <i>Klebsiella pneumoniae</i> . <i>FEBS Letters</i> , 1994, 347, 37-41.	2.8	33
68	Localization of Peptidases in Lactococci. <i>Applied and Environmental Microbiology</i> , 1992, 58, 285-290.	3.1	96