DuÅ¡an Hesek

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/616814/publications.pdf

Version: 2024-02-01

113 papers	4,264 citations	101543 36 h-index	133252 59 g-index
113 all docs	113 docs citations	113 times ranked	4466 citing authors

#	Article	IF	Citations
1	Selective MMP-9 Inhibitor (R)-ND-336 Alone or in Combination with Linezolid Accelerates Wound Healing in Infected Diabetic Mice. ACS Pharmacology and Translational Science, 2021, 4, 107-117.	4.9	17
2	Turnover Chemistry and Structural Characterization of the Cj0843c Lytic Transglycosylase of Campylobacter jejuni. Biochemistry, 2021, 60, 1133-1144.	2.5	3
3	Turnover chemistry and structural characterization of the Cj0843c lytic transglycosylase of Campylobacter jejuni. FASEB Journal, 2021, 35, .	0.5	0
4	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.	4.1	2
5	Catalytic Cycle of Glycoside Hydrolase BglX from Pseudomonas aeruginosa and Its Implications for Biofilm Formation. ACS Chemical Biology, 2020, 15, 189-196.	3.4	11
6	Hyperbaric oxygen therapy accelerates wound healing in diabetic mice by decreasing active matrix metalloproteinaseâ€9. Wound Repair and Regeneration, 2020, 28, 194-201.	3.0	15
7	Peptidoglycan reshaping by a noncanonical peptidase for helical cell shape in Campylobacter jejuni. Nature Communications, 2020, 11, 458.	12.8	14
8	A type VI secretion system delivers a cell wall amidase to target bacterial competitors. Molecular Microbiology, 2020, 114, 308-321.	2.5	25
9	Structural basis of denuded glycan recognition by SPOR domains in bacterial cell division. Nature Communications, 2019, 10, 5567.	12.8	29
10	Exolytic and endolytic turnover of peptidoglycan by lytic transglycosylase Slt of Pseudomonas aeruginosa. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 4393-4398.	7.1	31
11	Potentiation of the activity of Î²-lactam antibiotics by farnesol and its derivatives. Bioorganic and Medicinal Chemistry Letters, 2018, 28, 642-645.	2.2	18
12	Allostery, Recognition of Nascent Peptidoglycan, and Cross-linking of the Cell Wall by the Essential Penicillin-Binding Protein 2x of Streptococcus pneumoniae. ACS Chemical Biology, 2018, 13, 694-702.	3.4	29
13	Validation of Matrix Metalloproteinase-9 (MMP-9) as a Novel Target for Treatment of Diabetic Foot Ulcers in Humans and Discovery of a Potent and Selective Small-Molecule MMP-9 Inhibitor That Accelerates Healing. Journal of Medicinal Chemistry, 2018, 61, 8825-8837.	6.4	82
14	Expression of active matrix metalloproteinase-9 as a likely contributor to the clinical failure of aclerastide in treatment of diabetic foot ulcers. European Journal of Pharmacology, 2018, 834, 77-83.	3.5	11
15	Muropeptide Binding and the X-ray Structure of the Effector Domain of the Transcriptional Regulator AmpR of Pseudomonas aeruginosa. Journal of the American Chemical Society, 2017, 139, 1448-1451.	13.7	42
16	From Genome to Proteome to Elucidation of Reactions for All Eleven Known Lytic Transglycosylases from Pseudomonas aeruginosa. Angewandte Chemie, 2017, 129, 2779-2783.	2.0	5
17	From Genome to Proteome to Elucidation of Reactions for All Eleven Known Lytic Transglycosylases from Pseudomonas aeruginosa. Angewandte Chemie - International Edition, 2017, 56, 2735-2739.	13.8	50
18	Catalytic Cycle of the N-Acetylglucosaminidase NagZ from Pseudomonas aeruginosa. Journal of the American Chemical Society, 2017, 139, 6795-6798.	13.7	28

#	ARTICLE	IF	CITATIONS
19	Deciphering the Nature of Enzymatic Modifications of Bacterial Cell Walls. ChemBioChem, 2017, 18, 1696-1702.	2.6	12
20	Synthesis and shift-reagent-assisted full NMR assignment of bacterial (Z8,E2,Ï‰)-undecaprenol. Chemical Communications, 2017, 53, 12774-12777.	4.1	5
21	The crystal structure of the major pneumococcal autolysin LytA in complex with a large peptidoglycan fragment reveals the pivotal role of glycans for lytic activity. Molecular Microbiology, 2016, 101, 954-967.	2.5	14
22	Muropeptides in Pseudomonas aeruginosa and their Role as Elicitors of Î²â€Lactamâ€Antibiotic Resistance. Angewandte Chemie, 2016, 128, 6996-7000.	2.0	3
23	Muropeptides in Pseudomonas aeruginosa and their Role as Elicitors of Î²â€Lactamâ€Antibiotic Resistance. Angewandte Chemie - International Edition, 2016, 55, 6882-6886.	13.8	43
24	Turnover of Bacterial Cell Wall by SltB3, a Multidomain Lytic Transglycosylase of Pseudomonas aeruginosa. ACS Chemical Biology, 2016, 11, 1525-1531.	3.4	16
25	The Natural Product Essramycin and Three of Its Isomers Are Devoid of Antibacterial Activity. Journal of Natural Products, 2016, 79, 1219-1222.	3.0	9
26	Lytic transglycosylases LtgA and LtgD perform distinct roles in remodeling, recycling and releasing peptidoglycan in Neisseria gonorrhoeae. Molecular Microbiology, 2016, 102, 865-881.	2.5	38
27	Activation by Allostery in Cell-Wall Remodeling by a Modular Membrane-Bound Lytic Transglycosylase from Pseudomonas aeruginosa. Structure, 2016, 24, 1729-1741.	3.3	27
28	Amidase Activity of AmiC Controls Cell Separation and Stem Peptide Release and Is Enhanced by NlpD in Neisseria gonorrhoeae. Journal of Biological Chemistry, 2016, 291, 10916-10933.	3.4	26
29	Ensemble of Pinanones from the Permanganate Oxidation of Myrtenal. Journal of Organic Chemistry, 2016, 81, 5705-5709.	3.2	1
30	Three-dimensional QSAR analysis and design of new 1,2,4-oxadiazole antibacterials. Bioorganic and Medicinal Chemistry Letters, 2016, 26, 1011-1015.	2.2	48
31	Structural Basis of the Heterodimer Formation between Cell Shape-Determining Proteins Csd1 and Csd2 from Helicobacter pylori. PLoS ONE, 2016, 11, e0164243.	2.5	17
32	Substrate recognition and catalysis by LytB, a pneumococcal peptidoglycan hydrolase involved in virulence. Scientific Reports, 2015, 5, 16198.	3.3	30
33	The external PASTA domain of the essential serine/threonine protein kinase PknB regulates mycobacterial growth. Open Biology, 2015, 5, 150025.	3.6	22
34	Structure of Csd3 fromHelicobacter pylori, a cell shape-determining metallopeptidase. Acta Crystallographica Section D: Biological Crystallography, 2015, 71, 675-686.	2.5	21
35	The Cell Shape-determining Csd6 Protein from Helicobacter pylori Constitutes a New Family of l,d-Carboxypeptidase. Journal of Biological Chemistry, 2015, 290, 25103-25117.	3.4	34
36	Catalytic Spectrum of the Penicillin-Binding Protein 4 of Pseudomonas aeruginosa, a Nexus for the Induction of Î²-Lactam Antibiotic Resistance. Journal of the American Chemical Society, 2015, 137, 190-200.	13.7	32

#	Article	IF	Citations
37	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.	3.2	18
38	Water-Soluble MMP-9 Inhibitor Reduces Lesion Volume after Severe Traumatic Brain Injury. ACS Chemical Neuroscience, 2015, 6, 1658-1664.	3.5	20
39	Structural and Functional Insights into Peptidoglycan Access for the Lytic Amidase LytA of Streptococcus pneumoniae. MBio, 2014, 5, e01120-13.	4.1	48
40	Structural basis for the recognition of muramyltripeptide byHelicobacter pyloriCsd4, a<scp>D</scp>,<scp>L</scp>-carboxypeptidase controlling the helical cell shape. Acta Crystallographica Section D: Biological Crystallography, 2014, 70, 2800-2812.	2.5	20
41	Enantiomers of a selective gelatinase inhibitor: (R)- and (S)-2-[(4-phenoxyphenyl)sulfonylmethyl]thiirane. Acta Crystallographica Section C, Structural Chemistry, 2014, 70, 1003-1006.	0.5	1
42	A Chemical Biological Strategy to Facilitate Diabetic Wound Healing. ACS Chemical Biology, 2014, 9, 105-110.	3.4	75
43	Structure and Cell Wall Cleavage by Modular Lytic Transglycosylase MltC of Escherichia coli. ACS Chemical Biology, 2014, 9, 2058-2066.	3.4	41
44	Use of Silver Carbonate in the Wittig Reaction. Journal of Organic Chemistry, 2013, 78, 12224-12228.	3.2	19
45	Cell-Wall Remodeling by the Zinc-Protease AmpDh3 from Pseudomonas aeruginosa. Journal of the American Chemical Society, 2013, 135, 12604-12607.	13.7	41
46	Reactions of the Three AmpD Enzymes of Pseudomonas aeruginosa. Journal of the American Chemical Society, 2013, 135, 4950-4953.	13.7	50
47	Reactions of All Escherichia coli Lytic Transglycosylases with Bacterial Cell Wall. Journal of the American Chemical Society, 2013, 135, 3311-3314.	13.7	111
48	Reaction Products and the X-ray Structure of AmpDh2, a Virulence Determinant of Pseudomonas aeruginosa. Journal of the American Chemical Society, 2013, 135, 10318-10321.	13.7	38
49	Structural Analysis of the Role of Pseudomonas aeruginosa Penicillin-Binding Protein 5 in Î²-Lactam Resistance. Antimicrobial Agents and Chemotherapy, 2013, 57, 3137-3146.	3.2	40
50	How allosteric control of Staphylococcus aureus 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.	7.1	235
51	Mechanism of anchoring of OmpA protein to the cell wall peptidoglycan of the gramâ€negative bacterial outer membrane. FASEB Journal, 2012, 26, 219-228.	0.5	164
52	Structureâ€“Activity Relationship for Thiirane-Based Gelatinase Inhibitors. ACS Medicinal Chemistry Letters, 2012, 3, 490-495.	2.8	34
53	Synthesis and NMR Characterization of (Z,Z,Z,Z,E,E,Ï‰)-Heptaprenol. Journal of the American Chemical Society, 2012, 134, 13881-13888.	13.7	12
54	Inhibitors for Bacterial Cell-Wall Recycling. ACS Medicinal Chemistry Letters, 2012, 3, 238-242.	2.8	36

#	Article	IF	Citations
55	Recognition of peptidoglycan and Î²-lactam antibiotics by the extracellular domain of the Ser/Thr protein kinase StkP fromStreptococcus pneumoniae. FEBS Letters, 2011, 585, 357-363.	2.8	72
56	Crystal Structures of Bacterial Peptidoglycan Amidase AmpD and an Unprecedented Activation Mechanism. Journal of Biological Chemistry, 2011, 286, 31714-31722.	3.4	49
57	Lysine NÎ¶-Decarboxylation Switch and Activation of the Î²-Lactam Sensor Domain of BlaR1 Protein of Methicillin-resistant Staphylococcus aureus*. Journal of Biological Chemistry, 2011, 286, 31466-31472.	3.4	25
58	Synthetic Peptidoglycan Motifs for Germination of Bacterial Spores. ChemBioChem, 2010, 11, 2525-2529.	2.6	54
59	Sulfonylation-Induced N- to O-Acetyl Migration in 2-Acetamidoethanol Derivatives. Journal of Organic Chemistry, 2010, 75, 3515-3517.	3.2	12
60	Regiospecific Syntheses of 6Î±-(1R-Hydroxyoctyl)penicillanic Acid and 6Î²-(1R-Hydroxyoctyl)penicillanic Acid as Mechanistic Probes of Class D Î²-Lactamases. Organic Letters, 2009, 11, 2515-2518.	4.6	15
61	A Potent Gelatinase Inhibitor with Antiâ€Tumorâ€Invasive Activity and its Metabolic Disposition. Chemical Biology and Drug Design, 2009, 73, 189-202.	3.2	33
62	Active Site Ringâ€Opening of a Thiirane Moiety and Picomolar Inhibition of Gelatinases. Chemical Biology and Drug Design, 2009, 74, 527-534.	3.2	46
63	Synthesis, Kinetic Characterization and Metabolism of Diastereomeric 2â€(1â€(4â€Phenoxyphenylsulfonyl)ethyl)thiiranes as Potent Gelatinase and MT1â€MMP Inhibitors. Chemical Biology and Drug Design, 2009, 74, 535-546.	3.2	13
64	Key side products due to reactivity of dimethylmaleoyl moiety as amine protective group. Chemical Papers, 2009, 63, 592-597.	2.2	2
65	Bacterial AmpD at the Crossroads of Peptidoglycan Recycling and Manifestation of Antibiotic Resistance. Journal of the American Chemical Society, 2009, 131, 8742-8743.	13.7	52
66	Crystal Structures of Penicillin-Binding Protein 6 from Escherichia coli. Journal of the American Chemical Society, 2009, 131, 14345-14354.	13.7	60
67	Total Synthesis of N-Acetylglucosamine-1,6-anhydro-N-acetylmuramylpentapeptide and Evaluation of Its Turnover by AmpD from Escherichia coli. Journal of the American Chemical Society, 2009, 131, 5187-5193.	13.7	61
68	Complications from Dual Roles of Sodium Hydride as a Base and as a Reducing Agent. Journal of Organic Chemistry, 2009, 74, 2567-2570.	3.2	37
69	Conformational analyses of thiirane-based gelatinase inhibitors. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 3064-3067.	2.2	8
70	Synthetic Efforts in Preparations of Components of the Bacterial Cell Wall. ACS Symposium Series, 2008, , 54-78.	0.5	5
71	Lytic Transglycosylase MltB of Escherichia coli and Its Role in Recycling of Peptidoglycan Strands of Bacterial Cell Wall. Journal of the American Chemical Society, 2008, 130, 11878-11879.	13.7	41
72	Co-opting the Cell Wall in Fighting Methicillin-Resistant Staphylococcus aureus: Potent Inhibition of PBP 2a by Two Anti-MRSA Î²-Lactam Antibiotics. Journal of the American Chemical Society, 2008, 130, 9212-9213.	13.7	111

#	Article	IF	Citations
73	Facile Preparation of a Highly Functionalized Tetrahydropyran by Catalytic Hydrogenation of an Oxazoline. Journal of Organic Chemistry, 2008, 73, 7349-7352.	3.2	5
74	Elucidation of the Molecular Recognition of Bacterial Cell Wall by Modular Pneumococcal Phage Endolysin CPL-1. Journal of Biological Chemistry, 2007, 282, 24990-24999.	3.4	61
75	Structural insights into the bactericidal mechanism of human peptidoglycan recognition proteins. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 8761-8766.	7.1	87
76	Design and Synthesis of a Structurally Constrained Aminoglycoside. Journal of Organic Chemistry, 2007, 72, 5450-5453.	3.2	22
77	Side Reaction of Significance in Preparation of Peptide- or Peptidomimetic-Based Hydroxamate Enzyme Inhibitors. Journal of Organic Chemistry, 2006, 71, 2885-2887.	3.2	3
78	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.	7.1	371
79	Thermodynamics of Interactions of Vancomycin and Synthetic Surrogates of Bacterial Cell Wall. Journal of the American Chemical Society, 2006, 128, 7736-7737.	13.7	32
80	Synthesis of an Inhibitor-Tethered Resin for Detection of Active Matrix Metalloproteinases Involved in Disease. Journal of Organic Chemistry, 2006, 71, 5848-5854.	3.2	26
81	Design and Characterization of a Metalloproteinase Inhibitor-Tethered Resin for the Detection of Active MMPs in Biological Samples. Chemistry and Biology, 2006, 13, 379-386.	6.0	28
82	Mechanistic Basis for the Action of New Cephalosporin Antibiotics Effective against Methicillin- and Vancomycin-resistant Staphylococcus aureus. Journal of Biological Chemistry, 2006, 281, 10035-10041.	3.4	35
83	Activation for Catalysis of Penicillin-Binding Protein 2a from Methicillin-ResistantStaphylococcusaureusby Bacterial Cell Wall. Journal of the American Chemical Society, 2005, 127, 2056-2057.	13.7	89
84	A Practical Synthesis of Nitrocefin. Journal of Organic Chemistry, 2005, 70, 367-369.	3.2	30
85	Synthesis of a Fragment of Bacterial Cell Wall. Journal of Organic Chemistry, 2004, 69, 2137-2146.	3.2	52
86	Synthetic Peptidoglycan Substrates for Penicillin-Binding Protein 5 of Gram-Negative Bacteria. Journal of Organic Chemistry, 2004, 69, 778-784.	3.2	56
87	A Mechanism-Based Inhibitor Targeting thedd-Transpeptidase Activity of Bacterial Penicillin-Binding Proteins. Journal of the American Chemical Society, 2003, 125, 16322-16326.	13.7	52
88	The Formation of Spiro-bridged Dimers of Cyclooctane-1,2-dicarbonyl Compounds via Domino Aldol-Cycloalkylation. Heterocycles, 2002, 57, 741.	0.7	2
89	Controlled Specific Ligand Substitution and Chiroptical Properties of Ruthenium Bis(bipyridine) Nitrosoarene Complexes. Bulletin of the Chemical Society of Japan, 2002, 75, 335-338.	3.2	1
90	Ligand Selective Monosubstitution with Complete Enantiomeric Retention in Ruthenium Bis(bipyridine) Complexes. Inorganic Chemistry, 2001, 40, 2478-2479.	4.0	13

#	Article	IF	Citations
91	Structural, CV and IR Spectroscopic Evidences for Preorientation in PET-Active Phthalimido Carboxylic Acids. Organic Letters, 2001, 3, 1593-1596.	4.6	25
92	Photochromic Atropisomer Generation and Conformation Determination in a Ruthenium Bis(bipyridine) Phosphonite Î³-Cyclodextrin System. Journal of the American Chemical Society, 2001, 123, 12232-12237.	13.7	18
93	The first asymmetric synthesis of chiral ruthenium tris(bipyridine) from racemic ruthenium bis(bipyridine) complexes. Tetrahedron Letters, 2000, 41, 2617-2620.	1.4	28
94	Novel Synthetic Routes to Several New, Differentially Substituted Ruthenium Tris(4,4â€˜-disubstituted-2,2-bipyridine) Complexes. Inorganic Chemistry, 2000, 39, 308-316.	4.0	48
95	Diastereoselective Preparation and Characterization of Ruthenium Bis(bipyridine) Sulfoxide Complexes. Inorganic Chemistry, 2000, 39, 317-324.	4.0	51
96	Atropisomer and Diastereomer Generation and Control in Ruthenium Bis(bipyridine) Phosphonite Complexes. Journal of the American Chemical Society, 2000, 122, 10236-10237.	13.7	14
97	Acid-Promoted Rearrangement of Carbonate Functionality Anchored to the Lower Rim of a Calix[4]arene Skeleton:â€‰ A New Class of Chiral Calix[4]arene and Its Chiroptical Properties. Organic Letters, 2000, 2, 2237-2240.	4.6	29
98	Anion Recognition Properties of New Upper-Rim Cobaltocenium Calix[4]arene Receptors. Organometallics, 1999, 18, 3933-3943.	2.3	73
99	Conformational Switching in the Thermal and Photochemical Synthesis ofcis- andtrans-Ruthenium Bis(bipyridine) Sulfoxide Complexes. Chemistry Letters, 1999, 28, 109-110.	1.3	14
100	Desolvation of a Novel Microporous Hydrogen-Bonded Framework: Characterization by In Situ Single-Crystal and Powder X-ray Diffraction. Angewandte Chemie - International Edition, 1998, 37, 3158-3160.	13.8	114
101	High yield preparation of a novel tetrakis[ruthenium tris(bipyridine)]calix[6]arene derivative with good diastereomeric purity. Tetrahedron: Asymmetry, 1998, 9, 4089-4097.	1.8	20
102	Synthesis and Characterization of Novel Acyclic, Macrocyclic, and Calix[4]arene Ruthenium(II) Bipyridyl Receptor Molecules That Recognize and Sense Anions. Inorganic Chemistry, 1996, 35, 5868-5879.	4.0	175
103	Acid catalysed condensation reactions of 1,3-dihydroxybenzene with new redox-active metallocene aldehydes. Journal of Organometallic Chemistry, 1996, 511, 207-215.	1.8	4
104	Synthesis of New [1,3]Diazaheterocyclo[2',1':2,3][1,3,5]thiadiazino[4,5-f]purine Ring Systems. Collection of Czechoslovak Chemical Communications, 1996, 61, 1642-1646.	1.0	1
105	Synthesis, coordination and redox properties of a novel tetrathiafulvalene tetra(benzo-15-crown-5)ether ligand. Polyhedron, 1995, 14, 1327-1332.	2.2	6
106	A neutral upper to lower rim linked bis-calix[4]arene receptor that recognises anionic guest species. Tetrahedron Letters, 1995, 36, 767-770.	1.4	63
107	Anion Recognition by Redox-Responsive Ditopic Bis-Cobaltocenium Receptor Molecules Including a Novel Calix[4]arene Derivative That Binds a Dicarboxylate Dianion. Organometallics, 1995, 14, 3288-3295.	2.3	67
108	New [f]-Fused Theophyllines via Intramolecular Nucleophilic Addition of Alkyl (E)-4-[(8-Substituted)theophyllin-7-yl]-2-butenoate. Synthesis, 1991, 1991, 625-628.	2.3	11

#	Article	IF	Citations
109	3,7-Dialkyl-8-alkyl- or -aryl-3,7-dihydropurine-2,6-diones. Collection of Czechoslovak Chemical Communications, 1990, 55, 2257-2269.	1.0	4
110	1,3-Dipolar cycloaddition reactions of 7-alkenyl- or 7-alkynyl-8-azidomethyltheophyllines. Collection of Czechoslovak Chemical Communications, 1988, 53, 319-328.	1.0	6
111	The conversion of 5-nitrofurfuryl derivatives into 5-aminofurfurylidenemalonodinitrile. Collection of Czechoslovak Chemical Communications, 1980, 45, 752-754.	1.0	7
112	Opening of the furan ring in 5-azido-2-furaldehyde. Collection of Czechoslovak Chemical Communications, 1980, 45, 150-154.	1.0	5
113	A new method of preparation of Î±-amino derivatives of furan. Collection of Czechoslovak Chemical Communications, 1979, 44, 3301-3307.	1.0	7