William M Wuest

List of Publications by Citations

93 papers	2,512 citations	26 h-index	48 g-index
109 ext. papers	3,136 ext. citations	6.8 avg, IF	5.7 L-index

#	Paper	IF	Citations
93	Quaternary Ammonium Compounds: An Antimicrobial Mainstay and Platform for Innovation to Address Bacterial Resistance. *ACS Infectious Diseases*, **2015**, 1, 288-303	5.5	305
92	Natural Products as Platforms To Overcome Antibiotic Resistance. *Chemical Reviews*, **2017**, 117, 12415-12474	28.1	245
91	A new class of synthetic retinoid antibiotics effective against bacterial persisters. *Nature*, **2018**, 556, 103-107	50.4	216
90	Evolution of multi-component anion relay chemistry (ARC): construction of architecturally complex natural and unnatural products. *Chemical Communications*, **2008**, 5883-95	5.8	122
89	Biofilm-eradicating properties of quaternary ammonium amphiphiles: simple mimics of antimicrobial peptides. *ChemBioChem*, **2014**, 15, 2211-5	3.8	102
88	From antimicrobial activity to mechanism of resistance: the multifaceted role of simple quaternary ammonium compounds in bacterial eradication. *Tetrahedron*, **2016**, 72, 3559-3566	2.4	65
87	Three siderophores from one bacterial enzymatic assembly line. *Journal of the American Chemical Society*, **2009**, 131, 5056-7	16.4	61
86	Bioorganic Investigation of Multicationic Antimicrobials to Combat QAC-Resistant Staphylococcus aureus. *ACS Infectious Diseases*, **2015**, 1, 304-9	5.5	58
85	Intramolecular hydroamination of aminoalkynes with silver-phenanthroline catalysts. *Organic Letters*, **2008**, 10, 3903-6	6.2	57
84	A selective membrane-targeting repurposed antibiotic with activity against persistent methicillin-resistant. *Proceedings of the National Academy of Sciences of the United States of America* , **2019**, 116, 16529-16534	11.5	53
83	Promysalin Elicits Species-Selective Inhibition of Pseudomonas aeruginosa by Targeting Succinate Dehydrogenase. *Journal of the American Chemical Society*, **2018**, 140, 1774-1782	16.4	46
82	Are Quaternary Ammonium Compounds, the Workhorse Disinfectants, Effective against Severe Acute Respiratory Syndrome-Coronavirus-2?. *ACS Infectious Diseases*, **2020**, 6, 1553-1557	5.5	45
81	Computational screening and selection of cyclic peptide hairpin mimetics by molecular simulation and kinetic network models. *Journal of Chemical Information and Modeling*, **2014**, 54, 1425-32	6.1	44
80	Polymeric Quaternary Ammonium Compounds: Versatile Antimicrobial Materials. *Current Topics in Medicinal Chemistry*, **2017**, 17, 305-318	3	43
79	Ortho-TMS benzaldehyde: an effective linchpin for type II anion relay chemistry (ARC). *Angewandte Chemie - International Edition*, **2008**, 47, 7082-6	16.4	41
78	Targeting biofilms: a perspective on preventing dental caries. *MedChemComm*, **2019**, 10, 1057-1067	5	40
77	Repurposing human kinase inhibitors to create an antibiotic active against drug-resistant Staphylococcus aureus, persisters and biofilms. *Nature Chemistry*, **2020**, 12, 145-158	17.6	36

76	SylC catalyzes ureido-bond formation during biosynthesis of the proteasome inhibitor syringolin A. *Journal of the American Chemical Society*, **2009**, 131, 18263-5	16.4	35
75	Total synthesis of (-)-2-epi-peloruside A. *Organic Letters*, **2008**, 10, 5501-4	6.2	34
74	Building a Better Quaternary Ammonium Compound (QAC): Branched Tetracationic Antiseptic Amphiphiles. *ChemMedChem*, **2016**, 11, 1401-5	3.7	34
73	Molecular Simulation of Conformational Pre-Organization in Cyclic RGD Peptides. *Journal of Chemical Information and Modeling*, **2015**, 55, 806-13	6.1	33
72	The antimicrobial activity of mono-, bis-, tris-, and tetracationic amphiphiles derived from simple polyamine platforms. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 5824-5828	2.9	33
71	Total synthesis and biological investigation of (-)-promysalin. *Journal of the American Chemical Society*, **2015**, 137, 7314-7	16.4	29
70	More QACs, more questions: Recent advances in structure activity relationships and hurdles in understanding resistance mechanisms. *Tetrahedron Letters*, **2019**, 60,	2	27
69	Scaffold-Hopping of Multicationic Amphiphiles Yields Three New Classes of Antimicrobials. *ChemBioChem*, **2015**, 16, 2299-303	3.8	27
68	Discovery and Optimization of nTZDpa as an Antibiotic Effective Against Bacterial Persisters. *ACS Infectious Diseases*, **2018**, 4, 1540-1545	5.5	26
67	A concise synthesis of carolacton. *Organic Letters*, **2014**, 16, 1148-51	6.2	26
66	Draining the moat: disrupting bacterial biofilms with natural products. *Tetrahedron*, **2014**, 70, 6373-6383	2.4	26
65	TMEDA-derived biscationic amphiphiles: An economical preparation of potent antibacterial agents. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 99-102	2.9	26
64	Diverted Total Synthesis of Promysalin Analogs Demonstrates That an Iron-Binding Motif Is Responsible for Its Narrow-Spectrum Antibacterial Activity. *Journal of the American Chemical Society*, **2016**, 138, 5833-6	16.4	26
63	Canvass: A Crowd-Sourced, Natural-Product Screening Library for Exploring Biological Space. *ACS Central Science*, **2018**, 4, 1727-1741	16.8	26
62	The silent pandemic: Emergent antibiotic resistances following the global response to SARS-CoV-2. *IScience*, **2021**, 24, 102304	6.1	25
61	Ester- and amide-containing multiQACs: Exploring multicationic soft antimicrobial agents. *Bioorganic and Medicinal Chemistry Letters*, **2017**, 27, 2107-2112	2.9	24
60	Efflux Pumps Might Not Be the Major Drivers of QAC Resistance in Methicillin-Resistant Staphylococcus aureus. *ChemBioChem*, **2017**, 18, 1573-1577	3.8	24
59	Structure-Resistance Relationships: Interrogating Antiseptic Resistance in Bacteria with Multicationic Quaternary Ammonium Dyes. *ChemMedChem*, **2016**, 11, 958-62	3.7	23

58	Combined inhibition of Aurora A and p21-activated kinase 1 as a new treatment strategy in breast cancer. *Breast Cancer Research and Treatment*, **2019**, 177, 369-382	4.4	23
57	The Development of Next-Generation Pyridinium-Based multiQAC Antiseptics. *ChemMedChem*, **2017**, 12, 280-283	3.7	22
56	Diverted Total Synthesis of Carolacton-Inspired Analogs Yields Three Distinct Phenotypes in Streptococcus mutans Biofilms. *Journal of the American Chemical Society*, **2017**, 139, 7188-7191	16.4	22
55	Natural product-derived quaternary ammonium compounds with potent antimicrobial activity. *Journal of Antibiotics*, **2016**, 69, 344-7	3.7	22
54	Analysis of the Destabilization of Bacterial Membranes by Quaternary Ammonium Compounds: A Combined Experimental and Computational Study. *ChemBioChem*, **2020**, 21, 1510-1516	3.8	21
53	Beyond paraquats: dialkyl 3,3R and 3,4Rbipyridinium amphiphiles as antibacterial agents. *Bioorganic and Medicinal Chemistry Letters*, **2014**, 24, 3706-9	2.9	18
52	Claramines: A New Class Of Broad-Spectrum Antimicrobial Agents With Bimodal Activity. *ChemMedChem*, **2018**, 13, 1018-1027	3.7	17
51	Hybrid BisQACs: Potent Biscationic Quaternary Ammonium Compounds Merging the Structures of Two Commercial Antiseptics. *ChemMedChem*, **2017**, 12, 1931-1934	3.7	16
50	Connecting iron acquisition and biofilm formation in the ESKAPE pathogens as a strategy for combatting antibiotic resistance. *MedChemComm*, **2019**, 10, 505-512	5	15
49	Signed, Sealed, Delivered: Conjugate and Prodrug Strategies as Targeted Delivery Vectors for Antibiotics. *ACS Infectious Diseases*, **2019**, 5, 816-828	5.5	15
48	The Rhizosphere Microbiome: A Playground for Natural Product Chemists. *Synlett*, **2015**, 26, 2739-2744	2.2	13
47	An Investigation into Rigidity-Activity Relationships in BisQAC Amphiphilic Antiseptics. *ChemMedChem*, **2019**, 14, 83-87	3.7	13
46	Honokiol-Inspired Analogs as Inhibitors of Oral Bacteria. *ACS Infectious Diseases*, **2018**, 4, 118-122	5.5	13
45	Biologically Inspired Total Synthesis of Ulbactin F, an Iron-Binding Natural Product. *Organic Letters*, **2018**, 20, 5922-5926	6.2	12
44	Enzymatic timing and tailoring of macrolactamization in syringolin biosynthesis. *Organic Letters*, **2011**, 13, 4518-21	6.2	11
43	A Bisphenolic Honokiol Analog Outcompetes Oral Antimicrobial Agent Cetylpyridinium Chloride via a Membrane-Associated Mechanism. *ACS Infectious Diseases*, **2020**, 6, 74-79	5.5	11
42	Virulence attenuating combination therapy: a potential multi-target synergy approach to treat infections in cystic fibrosis patients. *RSC Medicinal Chemistry*, **2020**, 11, 358-369	3.5	10
41	Structure-Activity Relationship and Anticancer Profile of Second-Generation Anti-MRSA Synthetic Retinoids. *ACS Medicinal Chemistry Letters*, **2020**, 11, 393-397	4.3	10

40	Further Investigations into Rigidity-Activity Relationships in BisQAC Amphiphilic Antiseptics. *ChemMedChem*, **2020**, 15, 667-670	3.7	9
39	Diverted Total Synthesis of the Baulamycins and Analogues Reveals an Alternate Mechanism of Action. *Organic Letters*, **2018**, 20, 1126-1129	6.2	9
38	Twelve-membered macrolactones: privileged scaffolds for the development of new therapeutics. *Chemical Biology and Drug Design*, **2017**, 89, 169-191	2.9	8
37	The enantioselective synthesis and biological evaluation of chimeric promysalin analogs facilitated by diverted total synthesis. *Journal of Antibiotics*, **2016**, 69, 337-9	3.7	8
36	Synthesis of cyclic dimeric methyl morpholinoside common synthetic precursor to cyclic dinucleotide analogs. *Tetrahedron Letters*, **2014**, 55, 4966-4968	2	8
35	The Natural Product Elegaphenone Potentiates Antibiotic Effects against Pseudomonas aeruginosa. *Angewandte Chemie - International Edition*, **2019**, 58, 8581-8584	16.4	7
34	Synthetic Simplification of Carolacton Enables Chemical Genetic Studies in. *ACS Infectious Diseases*, **2019**, 5, 1480-1486	5.5	6
33	Asymmetric Total Synthesis of the Naturally Occurring Antibiotic Anthracimycin. *Organic Letters*, **2020**, 22, 5550-5554	6.2	6
32	Dual Inhibitor of Staphylococcus aureus Virulence and Biofilm Attenuates Expression of Major Toxins and Adhesins. *Biochemistry*, **2018**, 57, 1814-1820	3.2	6
31	Advancements in the Development of Non-Nitrogen-Based Amphiphilic Antiseptics to Overcome Pathogenic Bacterial Resistance. *ChemMedChem*, **2020**, 15, 1974-1984	3.7	6
30	Phylogeny-Guided Approach Yields Glycopeptides with Unique Action. *Trends in Pharmacological Sciences*, **2020**, 41, 297-299	13.2	5
29	An optimized synthesis of the potent and selective Pak1 inhibitor FRAX-1036. *Tetrahedron Letters*, **2016**, 57, 449-451	2	5
28	Tricepyridinium-inspired QACs yield potent antimicrobials and provide insight into QAC resistance. *ChemMedChem*, **2021**, 16, 463-466	3.7	5
27	Synthesis and biological evaluation of an antibacterial azaborine retinoid isostere. *Tetrahedron Letters*, **2021**, 62,	2	5
26	Epoxy Isonitriles, A Unique Class of Antibiotics: Synthesis of Their Metabolites and Biological Investigations. *ChemBioChem*, **2018**, 19, 2448-2452	3.8	5
25	A novel application of the Staudinger ligation to access neutral cyclic di-nucleotide analog precursors a divergent method. *RSC Advances*, **2017**, 7, 29835-29838	3.7	4
24	Broadening Activity of Polymyxin by Quaternary Ammonium Grafting. *ACS Infectious Diseases*, **2020**, 6, 1427-1435	5.5	4
23	From General to Specific: Can Pseudomonas Primary Metabolism Be Exploited for Narrow-Spectrum Antibiotics?. *ChemBioChem*, **2019**, 20, 34-39	3.8	4

22	Broad Spectrum Antibiotic Xanthocillin X Effectively Kills Dysregulation of Heme Biosynthesis. *ACS Central Science*, **2021**, 7, 488-498	16.8	4
21	Transcriptomic Profiling Suggests That Promysalin Alters the Metabolic Flux, Motility, and Iron Regulation in Pseudomonas putida KT2440. *ACS Infectious Diseases*, **2018**, 4, 1179-1187	5.5	4
20	Addition of ethylamines to the phenols of bithionol and synthetic retinoids does not elicit activity in gram-negative bacteria. *Bioorganic and Medicinal Chemistry Letters*, **2020**, 30, 127099	2.9	3
19	Trivalent sulfonium compounds (TSCs): Tetrahydrothiophene-based amphiphiles exhibit similar antimicrobial activity to analogous ammonium-based amphiphiles. *Bioorganic and Medicinal Chemistry Letters*, **2021**, 37, 127809	2.9	3
18	Pyochelin Biosynthetic Metabolites Bind Iron and Promote Growth in Demonstrating Siderophore-like Activity. *ACS Infectious Diseases*, **2021**, 7, 544-551	5.5	3
17	Target-Based Design of Promysalin Analogues Identifies a New Putative Binding Cleft in Succinate Dehydrogenase. *ACS Infectious Diseases*, **2020**, 6, 1372-1377	5.5	2
16	Identification of Specific and Nonspecific Inhibitors of Bacillus anthracis Type III Pantothenate Kinase (PanK). *ChemMedChem*, **2019**, 14, 78-82	3.7	2
15	Total synthesis of (+)-pilosinine via a stereodivergent conjugate addition strategy. *Tetrahedron Letters*, **2020**, 61,	2	2
14	Metallocene QACs: The Incorporation of Ferrocene Moieties into monoQAC and bisQAC Structures. *ChemMedChem*, **2021**, 16, 467-471	3.7	2
13	The histone-like protein AlgP regulon is distinct in mucoid and nonmucoid and does not include alginate biosynthesis genes. *Microbiology (United Kingdom)*, **2020**, 166, 861-866	2.9	1
12	Collaboration in Natural Product Total Synthesis: Carolacton A Decade of Discovery. *Synlett*, **2021**, 32, 241-248	2.2	1
11	Using membrane perturbing small molecules to target chronic persistent infections. *RSC Medicinal Chemistry*, **2021**, 12, 1312-1324	3.5	1
10	Hijacking the Bacterial Circuitry of Biofilm Processes via Chemical "Hot-Wiring": An Under-explored Avenue for Therapeutic Development. *ACS Infectious Diseases*, **2019**, 5, 789-795	5.5	0
9	A look around the West Indies: The spices of life are secondary metabolites. *Bioorganic and Medicinal Chemistry*, **2020**, 28, 115792	3.4	0
8	Building -bicyclo[4.4.0]decanes/decenes in complex multifunctional frameworks: the case for antibiotic development. *Natural Product Reports*, **2021**, 38, 880-889	15.1	0
7	nTZDpa (non-thiazolidinedione PPAR partial agonist) derivatives retain antimicrobial activity without improving renal toxicity.. *Bioorganic and Medicinal Chemistry Letters*, **2022**, 128678	2.9	0
6	Exploration of inhibitors of the bacterial LexA repressor-protease.. *Bioorganic and Medicinal Chemistry Letters*, **2022**, 65, 128702	2.9	0
5	EroS Enzyme from Aliivibrio fischeri Plays Cupid to Choanoflagellates. *ChemBioChem*, **2017**, 18, 2298-2308	3.0	8

List of Publications

4	Der Naturstoff Elegaphenon verstärkt antibiotische Effekte gegen Pseudomonas aeruginosa. *Angewandte Chemie*, **2019**, 131, 8670	3.6
3	Mining for mouth metabolites. *Nature Chemical Biology*, **2021**, 17, 505-506	11.7
2	An Efficient Synthesis of 3-Alkylpyridine Alkaloids Enables Their Biological Evaluation. *ChemMedChem*, **2021**, 16, 2487-2490	3.7
1	Promiscuous : Uptake of Non-Endogenous Ligands for Iron Acquisition. *Tetrahedron Letters*, **2021**, 75, 153204-153204	2