Wilfred Ajw Van Der Donk

List of Publications by Year
in descending order

324 papers	24,317 citations	9786 73 h-index	10734 138 g-index
353 all docs	353 docs citations	353 times ranked	14853 citing authors

#	Article	IF	Citations
1	Ribosomally synthesized and post-translationally modified peptide natural products: overview and recommendations for a universal nomenclature. Natural Product Reports, 2013, 30, 108-160.	10.3	1,692
2	Protein Radicals in Enzyme Catalysis. Chemical Reviews, 1998, 98, 705-762.	47.7	1,401
3	Minimum Information about a Biosynthetic Gene cluster. Nature Chemical Biology, 2015, 11, 625-631.	8.0	715
4	Biosynthesis and Mode of Action of Lantibiotics. Chemical Reviews, 2005, 105, 633-684.	47.7	681
5	Lantibiotics: Peptides of Diverse Structure and Function. Annual Review of Microbiology, 2007, 61, 477-501.	7.3	564
6	Bacteriophage targeting of gut bacterium attenuates alcoholic liver disease. Nature, 2019, 575, 505-511.	27.8	493
7	New developments in RiPP discovery, enzymology and engineering. Natural Product Reports, 2021, 38, 130-239.	10.3	412
8	Mechanistic Understanding of Lanthipeptide Biosynthetic Enzymes. Chemical Reviews, 2017, 117, 5457-5520.	47.7	375
9	Follow the leader: the use of leader peptides to guide natural product biosynthesis. Nature Chemical Biology, 2010, 6, 9-18.	8.0	352
10	Recent developments in pyridine nucleotide regeneration. Current Opinion in Biotechnology, 2003, 14, 421-426.	6.6	346
11	Reactions of catecholborane with Wilkinson's catalyst: implications for transition metal-catalyzed hydroborations of alkenes. Journal of the American Chemical Society, 1992, 114, 9350-9359.	13.7	334
12	Regeneration of cofactors for use in biocatalysis. Current Opinion in Biotechnology, 2003, 14, 583-589.	6.6	331
13	Discovery, Biosynthesis, and Engineering of Lantipeptides. Annual Review of Biochemistry, 2012, 81, 479-505.	11.1	310
14	Biosynthesis of Phosphonic and Phosphinic Acid Natural Products. Annual Review of Biochemistry, 2009, 78, 65-94.	11.1	303
15	Structure and mechanism of the tRNA-dependent lantibiotic dehydratase NisB. Nature, 2015, 517, 509-512.	27.8	278
16	Structure and Mechanism of the Lantibiotic Cyclase Involved in Nisin Biosynthesis. Science, 2006, 311, 1464-1467.	12.6	275
17	Synthesis of Methylphosphonic Acid by Marine Microbes: A Source for Methane in the Aerobic Ocean. Science, 2012, 337, 1104-1107.	12.6	263
18	Catalytic promiscuity in the biosynthesis of cyclic peptide secondary metabolites in planktonic marine cyanobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10430-10435.	7.1	256

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19	New Insights into the Biosynthetic Logic of Ribosomally Synthesized and Post-translationally Modified Peptide Natural Products. Cell Chemical Biology, 2016, 23, 31-44.	5.2	241
20	Lacticin 481: In Vitro Reconstitution of Lantibiotic Synthetase Activity. Science, 2004, 303, 679-681.	12.6	221
21	Synthesis of a Selenocysteine-Containing Peptide by Native Chemical Ligation. Organic Letters, 2001, 3, 1331-1334.	4.6	217
22	Discovery and in vitro biosynthesis of haloduracin, a two-component lantibiotic. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 17243-17248.	7.1	215
23	Radical-Mediated Enzymatic Methylation: A Tale of Two SAMS. Accounts of Chemical Research, 2012, 45, 555-564.	15.6	207
24	Sublancin is not a lantibiotic but an S-linked glycopeptide. Nature Chemical Biology, 2011, 7, 78-80.	8.0	187
25	Discovery of Unique Lanthionine Synthetases Reveals New Mechanistic and Evolutionary Insights. PLoS Biology, 2010, 8, e1000339.	5.6	186
26	Ribonucleotide reductases: radical enzymes with suicidal tendencies. Chemistry and Biology, 1995, 2, 793-801.	6.0	182
27	Evolution of lanthipeptide synthetases. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 18361-18366.	7.1	178
28	Discovery of phosphonic acid natural products by mining the genomes of 10,000 actinomycetes. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 12175-12180.	7.1	168
29	Genome mining for ribosomally synthesized natural products. Current Opinion in Chemical Biology, 2011, 15, 11-21.	6.1	162
30	Production of Lantipeptides in <i>Escherichia coli</i>. Journal of the American Chemical Society, 2011, 133, 2338-2341.	13.7	161
31	Facile Chemoselective Synthesis of Dehydroalanine-Containing Peptidesâ€. Organic Letters, 2000, 2, 3603-3606.	4.6	154
32	The Cyclooxygenase Reaction Mechanism. Biochemistry, 2002, 41, 15451-15458.	2.5	154
33	Relaxing the Nicotinamide Cofactor Specificity of Phosphite Dehydrogenase by Rational Designâ€. Biochemistry, 2003, 42, 11604-11614.	2.5	153
34	In Vitro Biosynthesis of the Core Scaffold of the Thiopeptide Thiomuracin. Journal of the American Chemical Society, 2015, 137, 16012-16015.	13.7	145
35	Lantibiotics from <i>Geobacillus thermodenitrificans</i>. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 5241-5246.	7.1	129
36	Unusual transformations in the biosynthesis of the antibiotic phosphinothricin tripeptide. Nature Chemical Biology, 2007, 3, 480-485.	8.0	126

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37	Ribosomally synthesized and post-translationally modified peptide natural product discovery in the genomic era. Current Opinion in Chemical Biology, 2017, 38, 36-44.	6.1	124
38	Phosphite Dehydrogenase: A Versatile Cofactor-Regeneration Enzyme. Angewandte Chemie - International Edition, 2002, 41, 3257-3259.	13.8	123
39	Lacticin 481 Synthetase Phosphorylates its Substrate during Lantibiotic Production. Journal of the American Chemical Society, 2005, 127, 15332-15333.	13.7	120
40	A lanthipeptide library used to identify a proteinâ€"protein interaction inhibitor. Nature Chemical Biology, 2018, 14, 375-380.	8.0	117
41	Heterologous Production of Fosfomycin and Identification of the Minimal Biosynthetic Gene Cluster. Chemistry and Biology, 2006, 13, 1171-1182.	6.0	116
42	Convergent Synthesis of Peptide Conjugates Using Dehydroalanines for Chemoselective Ligations. Organic Letters, 2001, 3, 1189-1192.	4.6	114
43	New insight into the mechanism of methyl transfer during the biosynthesis of fosfomycin. Chemical Communications, 2007, , 359-361.	4.1	112
44	An unusual carbonâ€"carbon bond cleavage reaction during phosphinothricin biosynthesis. Nature, 2009, 459, 871-874.	27.8	111
45	The many roles of glutamate in metabolism. Journal of Industrial Microbiology and Biotechnology, 2016, 43, 419-430.	3.0	111
46	An Engineered Azurin Variant Containing a Selenocysteine Copper Ligand. Journal of the American Chemical Society, 2002, 124, 2084-2085.	13.7	109
47	Use of a scaffold peptide in the biosynthesis of amino acidâ€"derived natural products. Science, 2019, 365, 280-284.	12.6	108
48	Substrate activation by iron superoxo intermediates. Current Opinion in Structural Biology, 2010, 20, 673-683.	5.7	107
49	Insights into the Mode of Action of the Two-Peptide Lantibiotic Haloduracin. ACS Chemical Biology, 2009, 4, 865-874.	3.4	104
50	In vitro activity of the nisin dehydratase NisB. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7258-7263.	7.1	104
51	Precursor peptide-targeted mining of more than one hundred thousand genomes expands the lanthipeptide natural product family. BMC Genomics, 2020, 21, 387.	2.8	102
52	Development and Application of Yeast and Phage Display of Diverse Lanthipeptides. ACS Central Science, 2018, 4, 458-467.	11.3	101
53	Nine Post-translational Modifications during the Biosynthesis of Cinnamycin. Journal of the American Chemical Society, 2011, 133, 13753-13760.	13.7	99
54	Insights into the Functional Role of the Tyrosineâ˘'Histidine Linkage in Cytochrome c Oxidase. Journal of the American Chemical Society, 2000, 122, 2403-2404.	13.7	96

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55	Biosynthesis of Rhizocticins, Antifungal Phosphonate Oligopeptides Produced by Bacillus subtilis ATCC6633. Chemistry and Biology, 2010, 17, 28-37.	6.0	95
56	Structural Characterization of Four Prochlorosins: A Novel Class of Lantipeptides Produced by Planktonic Marine Cyanobacteria. Biochemistry, 2012, 51, 4271-4279.	2.5	93
57	The sequence of the enterococcal cytolysin imparts unusual lanthionine stereochemistry. Nature Chemical Biology, 2013, 9, 157-159.	8.0	92
58	Ribosomally Synthesized and Postâ€Translationally Modified Peptide Natural Products: New Insights into the Role of Leader and Core Peptides during Biosynthesis. Chemistry - A European Journal, 2013, 19, 7662-7677.	3.3	91
59	Novel cofactors via post-translational modifications of enzyme active sites. Chemistry and Biology, 2000, 7, R159-R171.	6.0	90
60	In Vitro Mutasynthesis of Lantibiotic Analogues Containing Nonproteinogenic Amino Acids. Journal of the American Chemical Society, 2009, 131, 12024-12025.	13.7	90
61	Mechanism of Inhibition of <i>Bacillus anthracis</i> Spore Outgrowth by the Lantibiotic Nisin. ACS Chemical Biology, 2011, 6, 744-752.	3.4	90
62	An Engineered Lantibiotic Synthetase That Does Not Require a Leader Peptide on Its Substrate. Journal of the American Chemical Society, 2012, 134, 6952-6955.	13.7	87
63	Biosynthetic investigation of phomopsins reveals a widespread pathway for ribosomal natural products in Ascomycetes. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 3521-3526.	7.1	87
64	Chimeric Leader Peptides for the Generation of Non-Natural Hybrid RiPP Products. ACS Central Science, 2017, 3, 629-638.	11.3	87
65	Properties and Reactivity of Chlorovinylcobalamin and Vinylcobalamin and Their Implications for Vitamin B12-Catalyzed Reductive Dechlorination of Chlorinated Alkenes. Journal of the American Chemical Society, 2005, 127, 1126-1136.	13.7	85
66	Engineering Dehydro Amino Acids and Thioethers into Peptides Using Lacticin 481 Synthetase. Chemistry and Biology, 2006, 13, 1109-1117.	6.0	85
67	Biosynthesis of the Class III Lantipeptide Catenulipeptin. ACS Chemical Biology, 2012, 7, 1529-1535.	3.4	85
68	Biomimetic studies on the mechanism of stereoselective lanthionine formationElectronic supplementary information (ESI) available: separation of the diastereomers of 5; cleavage of peptides from resins; COSY NMR spectrum of the product obtained from cyclization of both E-1 and 19. See http://www.rsc.org/suppdata/ob/b3/b304945k/. Organic and Biomolecular Chemistry, 2003, 1, 3304.	2.8	84
69	The Importance of the Leader Sequence for Directing Lanthionine Formation in Lacticin 481. Biochemistry, 2008, 47, 7342-7351.	2.5	84
70	EPR Investigations of the Inactivation of E. coli Ribonucleotide Reductase with 2'-Azido-2'-deoxyuridine 5'-Diphosphate: Evidence for the Involvement of the Thiyl Radical of C225-R1. Journal of the American Chemical Society, 1995, 117, 8908-8916.	13.7	83
71	Mechanistic Investigation of a Novel Vitamin B12-Catalyzed Carbonâ^'Carbon Bond Forming Reaction, the Reductive Dimerization of Arylalkenes. Journal of Organic Chemistry, 2002, 67, 837-846.	3.2	81
72	Heterologous Expression, Purification, and Characterization of a Highly Active Xylose Reductase from Neurospora crassa. Applied and Environmental Microbiology, 2005, 71, 1642-1647.	3.1	81

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73	Phosphonate biosynthesis and catabolism: a treasure trove of unusual enzymology. Current Opinion in Chemical Biology, 2013, 17, 580-588.	6.1	81
74	Comparison of the properties of prostaglandin H synthase-1 and -2. Progress in Lipid Research, 2003, 42, 377-404.	11.6	80
75	Aziridine-2-carboxylic Acid-Containing Peptides:Â Application to Solution- and Solid-Phase Convergent Site-Selective Peptide Modification. Journal of the American Chemical Society, 2005, 127, 7359-7369.	13.7	80
76	Evolutionary radiation of lanthipeptides in marine cyanobacteria. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E5424-E5433.	7.1	80
77	Post-translational modifications during lantibiotic biosynthesis. Current Opinion in Chemical Biology, 2004, 8, 498-507.	6.1	79
78	Substrate control in stereoselective lanthionine biosynthesis. Nature Chemistry, 2015, 7, 57-64.	13.6	79
79	Biomimetic Stereoselective Formation of Methyllanthionine. Organic Letters, 2002, 4, 1335-1338.	4.6	78
80	Identification of Essential Catalytic Residues of the Cyclase NisC Involved in the Biosynthesis of Nisin. Journal of Biological Chemistry, 2007, 282, 21169-21175.	3.4	78
81	Discovery and Characterization of Bicereucin, an Unusual <scp>d</scp>-Amino Acid-Containing Mixed Two-Component Lantibiotic. Journal of the American Chemical Society, 2016, 138, 5254-5257.	13.7	78
82	SpaC and NisC, the Cyclases Involved in Subtilin and Nisin Biosynthesis, Are Zinc Proteins. Biochemistry, 2003, 42, 13613-13624.	2.5	76
83	Further evidence for the role of d.pi.-p.pi. bonding in rhodium-mediated hydroborations. Journal of the American Chemical Society, 1991, 113, 6139-6144.	13.7	75
84	Mechanistic Studies on the Vitamin B12-Catalyzed Dechlorination of Chlorinated Alkenes. Journal of the American Chemical Society, 2000, 122, 12403-12404.	13.7	73
85	Biosynthetic Timing and Substrate Specificity for the Thiopeptide Thiomuracin. Journal of the American Chemical Society, 2016, 138, 15511-15514.	13.7	73
86	The enterococcal cytolysin synthetase has an unanticipated lipid kinase fold. ELife, 2015, 4, .	6.0	73
87	Structure-Activity Relationship Studies of the Two-Component Lantibiotic Haloduracin. Chemistry and Biology, 2008, 15, 1035-1045.	6.0	71
88	<i>In Vitro</i> Reconstitution and Substrate Specificity of a Lantibiotic Protease. Biochemistry, 2008, 47, 7352-7363.	2.5	71
89	Synthesis and Activity of Thioether-Containing Analogues of the Complement Inhibitor Compstatin. ACS Chemical Biology, 2011, 6, 753-760.	3.4	70
90	Biosynthesis of the Antimicrobial Peptide Epilancin 15X and Its N-Terminal Lactate. Chemistry and Biology, 2011, 18, 857-867.	6.0	70

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91	Expanded Natural Product Diversity Revealed by Analysis of Lanthipeptide-Like Gene Clusters in Actinobacteria. Applied and Environmental Microbiology, 2015, 81, 4339-4350.	3.1	70
92	Structural insights into enzymatic [4+2] <i>aza</i> -cycloaddition in thiopeptide antibiotic biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 12928-12933.	7.1	70
93	Detection of a New Substrate-Derived Radical during Inactivation of Ribonucleotide Reductase fromEscherichia coliby Gemcitabine 5â€˜-Diphosphateâ€. Biochemistry, 1998, 37, 6419-6426.	2.5	69
94	Mutants of the Zinc Ligands of Lacticin 481 Synthetase Retain Dehydration Activity but Have Impaired Cyclization Activity. Biochemistry, 2007, 46, 6268-6276.	2.5	68
95	Inactivation of Ribonucleotide Reductase by (E)-2â€˜-Fluoromethylene-2â€˜-deoxycytidine 5â€˜-Diphosphate:Â A Paradigm for Nucleotide Mechanism-Based Inhibitorsâ€. Biochemistry, 1996, 35, 8381-8391.	2.5	67
96	Transforming a Blue Copper into a Red Copper Protein: Engineering Cysteine and Homocysteine into the Axial Position of Azurin Using Site-Directed Mutagenesis and Expressed Protein Ligation. Journal of the American Chemical Society, 2010, 132, 10093-10101.	13.7	67
97	The Selenocysteine-Substituted Blue Copper Center:â€‰ Spectroscopic Investigations of Cys112SeCys Pseudomonas aeruginosa Azurin. Journal of the American Chemical Society, 2004, 126, 7244-7256.	13.7	66
98	Inhibition of Bacillus anthracis Spore Outgrowth by Nisin. Antimicrobial Agents and Chemotherapy, 2008, 52, 4281-4288.	3.2	66
99	A Price To Pay for Relaxed Substrate Specificity: A Comparative Kinetic Analysis of the Class II Lanthipeptide Synthetases ProcM and HalM2. Journal of the American Chemical Society, 2014, 136, 17513-17529.	13.7	66
100	Mechanism and applications of phosphite dehydrogenase. Bioorganic Chemistry, 2005, 33, 171-189.	4.1	65
101	The Glycosyltransferase Involved in Thurandacin Biosynthesis Catalyzes Both O- and S-Glycosylation. Journal of the American Chemical Society, 2014, 136, 84-87.	13.7	64
102	Structure and tRNA Specificity of MibB, a Lantibiotic Dehydratase from Actinobacteria Involved in NAI-107 Biosynthesis. Cell Chemical Biology, 2016, 23, 370-380.	5.2	64
103	Two Flavoenzymes Catalyze the Post-Translational Generation of 5-Chlorotryptophan and 2-Aminovinyl-Cysteine during NAI-107 Biosynthesis. ACS Chemical Biology, 2017, 12, 548-557.	3.4	64
104	Site-Selective Conjugation of Thiols with Aziridine-2-Carboxylic Acid-Containing Peptides. Journal of the American Chemical Society, 2004, 126, 12712-12713.	13.7	63
105	Mechanistic Investigations of the Dehydration Reaction of Lacticin 481 Synthetase Using Site-Directed Mutagenesis. Biochemistry, 2007, 46, 5991-6000.	2.5	63
106	Insights into AMS/PCAT transporters from biochemical and structural characterization of a double Glycine motif protease. ELife, 2019, 8, .	6.0	63
107	Chemical Synthesis and Biological Activity of Analogues of the Lantibiotic Epilancin 15X. Journal of the American Chemical Society, 2012, 134, 7648-7651.	13.7	62
108	Ribosomal Natural Products, Tailored To Fit. Accounts of Chemical Research, 2017, 50, 1577-1586.	15.6	61

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109	Different Biosynthetic Pathways to Fosfomycin in Pseudomonas syringae and Streptomyces Species. Antimicrobial Agents and Chemotherapy, 2012, 56, 4175-4183.	3.2	60
110	Mechanistic Studies of Ser/Thr Dehydration Catalyzed by a Member of the LanL Lanthionine Synthetase Family. Biochemistry, 2011, 50, 891-898.	2.5	59
111	Structural investigation of ribosomally synthesized natural products by hypothetical structure enumeration and evaluation using tandem MS. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12031-12036.	7.1	58
112	Enantioselective hydroborations catalyzed by rhodium(+1) complexes. Tetrahedron: Asymmetry, 1991, 2, 613-621.	1.8	57
113	Mechanistic Studies on the Substrate-Tolerant Lanthipeptide Synthetase ProcM. Journal of the American Chemical Society, 2014, 136, 10450-10459.	13.7	56
114	Phosphite Dehydrogenase:Â An Unusual Phosphoryl Transfer Reaction. Journal of the American Chemical Society, 2001, 123, 2672-2673.	13.7	55
115	New insights into the biosynthesis of fosfazinomycin. Chemical Science, 2016, 7, 5219-5223.	7.4	55
116	Oligosaccharideâ€"Peptide Ligation of Glycosyl Thiolates with Dehydropeptides: Synthesis of S-Linked Mucin-Related Glycopeptide Conjugates. Chemistry - A European Journal, 2003, 9, 5997-6006.	3.3	54
117	Haloduracin Î± Binds the Peptidoglycan Precursor Lipid II with 2:1 Stoichiometry. Journal of the American Chemical Society, 2011, 133, 17544-17547.	13.7	54
118	Glutamic acid is a carrier for hydrazine during the biosyntheses of fosfazinomycin and kinamycin. Nature Communications, 2018, 9, 3687.	12.8	54
119	Selenocysteine Derivatives for Chemoselective Ligations. ChemBioChem, 2002, 3, 709.	2.6	53
120	<i>O</i>-Methyltransferase-Mediated Incorporation of a Î²-Amino Acid in Lanthipeptides. Journal of the American Chemical Society, 2019, 141, 16790-16801.	13.7	53
121	Tyrosyl radical cofactors. Advances in Protein Chemistry, 2001, 58, 317-385.	4.4	52
122	High Divergence of the Precursor Peptides in Combinatorial Lanthipeptide Biosynthesis. ACS Chemical Biology, 2014, 9, 2686-2694.	3.4	52
123	Distributive and Directional Behavior of Lantibiotic Synthetases Revealed by High-Resolution Tandem Mass Spectrometry. Journal of the American Chemical Society, 2009, 131, 12258-12264.	13.7	51
124	Characterization of a Substrate-Derived Radical Detected during the Inactivation of Ribonucleotide Reductase fromEscherichia coliby 2â€˜-Fluoromethylene-2â€˜-deoxycytidine 5â€˜-Diphosphate. Journal of the American Chemical Society, 1998, 120, 3823-3835.	13.7	50
125	Use of lantibiotic synthetases for the preparation of bioactive constrained peptides. Bioorganic and Medicinal Chemistry Letters, 2008, 18, 3025-3028.	2.2	50
126	Chemical Synthesis of the Lantibiotic Lacticin 481 Reveals the Importance of Lanthionine Stereochemistry. Journal of the American Chemical Society, 2013, 135, 7094-7097.	13.7	50

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127	Synthesis and Characterization of Chlorinated Alkenylcobaloximes To Probe the Mechanism of Vitamin B12-Catalyzed Dechlorination of Priority Pollutants. Inorganic Chemistry, 2002, 41, 393-404.	4.0	49
128	The Leader Peptide Is Not Required for Post-Translational Modification by Lacticin 481 Synthetase. Journal of the American Chemical Society, 2007, 129, 10314-10315.	13.7	48
129	Substrate Selectivity of the Sublancin S-Glycosyltransferase. Journal of the American Chemical Society, 2011, 133, 16394-16397.	13.7	47
130	Synthesis of Isotopically Labeled Arachidonic Acids To Probe the Reaction Mechanism of Prostaglandin H Synthase. Journal of the American Chemical Society, 2002, 124, 10785-10796.	13.7	46
131	Model Studies of the Histidine-Tyrosine Cross-Link in CytochromecOxidase Reveal the Flexible Substituent Effect of the Imidazole Moiety. Organic Letters, 2005, 7, 2735-2738.	4.6	46
132	Dehydroalanine-containing peptides: preparation from phenylselenocysteine and utility in convergent ligation strategies. Nature Protocols, 2006, 1, 3001-3010.	12.0	46
133	Kinetic and Structural Investigations of the Allosteric Site in Human Epithelial 15-Lipoxygenase-2. Biochemistry, 2009, 48, 8721-8730.	2.5	46
134	Lanthionine synthetase Câ€“like protein 2 (LanCL2) is a novel regulator of Akt. Molecular Biology of the Cell, 2014, 25, 3954-3961.	2.1	46
135	New developments in lantibiotic biosynthesis and mode of action. Current Opinion in Microbiology, 2005, 8, 543-551.	5.1	45
136	Biosynthesis of 2-Hydroxyethylphosphonate, an Unexpected Intermediate Common to Multiple Phosphonate Biosynthetic Pathways. Journal of Biological Chemistry, 2008, 283, 23161-23168.	3.4	45
137	Investigation of the Substrate Specificity of Lacticin 481 Synthetase by Using Nonproteinogenic Amino Acids. ChemBioChem, 2009, 10, 911-919.	2.6	45
138	Structure and mechanism of lanthipeptide biosynthetic enzymes. Current Opinion in Structural Biology, 2014, 29, 58-66.	5.7	45
139	Reconstitution and Substrate Specificity of the Radical <i>S</i>-Adenosyl-methionine Thiazole <i>C</i>-Methyltransferase in Thiomuracin Biosynthesis. Journal of the American Chemical Society, 2017, 139, 4310-4313.	13.7	45
140	Chemical and Enzymatic Synthesis of Lanthionines. Mini-Reviews in Organic Chemistry, 2005, 2, 23-37.	1.3	44
141	Michael-Type Cyclizations in Lantibiotic Biosynthesis Are Reversible. ACS Chemical Biology, 2015, 10, 1234-1238.	3.4	44
142	The Phosphoenolpyruvate:Sugar Phosphotransferase System Is Involved in Sensitivity to the Glucosylated Bacteriocin Sublancin. Antimicrobial Agents and Chemotherapy, 2015, 59, 6844-6854.	3.2	44
143	Mechanistic Investigations of Human Reticulocyte 15- and Platelet 12-Lipoxygenases with Arachidonic Acid. Biochemistry, 2009, 48, 6259-6267.	2.5	43
144	Hydroperoxylation by Hydroxyethylphosphonate Dioxygenase. Journal of the American Chemical Society, 2009, 131, 16225-16232.	13.7	43

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145	Product Formation by the Promiscuous Lanthipeptide Synthetase ProcM is under Kinetic Control. Journal of the American Chemical Society, 2015, 137, 5140-5148.	13.7	43
146	Investigation of Substrate Recognition and Biosynthesis in Class IV Lanthipeptide Systems. Journal of the American Chemical Society, 2018, 140, 5743-5754.	13.7	43
147	On Titanium-Promoted Hydroborations of Alkenes by Borohydride and by Catecholborane. Organometallics, 1994, 13, 3616-3620.	2.3	42
148	Molecular Cloning and Heterologous Expression of the Dehydrophos Biosynthetic Gene Cluster. Chemistry and Biology, 2010, 17, 402-411.	6.0	42
149	Insights into the evolution of lanthipeptide biosynthesis. Protein Science, 2013, 22, 1478-1489.	7.6	42
150	Characterization of glutamyl-tRNAâ€“dependent dehydratases using nonreactive substrate mimics. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 17245-17250.	7.1	42
151	Characterization and structure of DhpI, a phosphonate <i>O</i> -methyltransferase involved in dehydrophos biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 17557-17562.	7.1	41
152	NMR Structure of the S-Linked Glycopeptide Sublancin 168. ACS Chemical Biology, 2014, 9, 796-801.	3.4	41
153	Genetic and Biochemical Characterization of a Pathway for the Degradation of 2-Aminoethylphosphonate in Sinorhizobium meliloti 1021. Journal of Biological Chemistry, 2011, 286, 22283-22290.	3.4	40
154	Heterologous production of the lantibiotic Ala(0)actagardine in Escherichia coli. Chemical Communications, 2012, 48, 10966.	4.1	40
155	Use of a Phosphonate Methyltransferase in the Identification of the Fosfazinomycin Biosynthetic Gene Cluster. Angewandte Chemie - International Edition, 2014, 53, 1334-1337.	13.8	40
156	Facile Removal of Leader Peptides from Lanthipeptides by Incorporation of a Hydroxy Acid. Journal of the American Chemical Society, 2015, 137, 6975-6978.	13.7	40
157	Post-translational Introduction of <scp>d</scp>-Alanine into Ribosomally Synthesized Peptides by the Dehydroalanine Reductase NpnJ. Journal of the American Chemical Society, 2015, 137, 12426-12429.	13.7	40
158	Engineering of new-to-nature ribosomally synthesized and post-translationally modified peptide natural products. Current Opinion in Biotechnology, 2021, 69, 221-231.	6.6	40
159	Revisiting the biosynthesis of dehydrophos reveals a tRNA-dependent pathway. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 10952-10957.	7.1	39
160	Structural basis for methylphosphonate biosynthesis. Science, 2017, 358, 1336-1339.	12.6	39
161	Stereospecific Radical-Mediated B₁₂-Dependent Methyl Transfer by the Fosfomycin Biosynthesis Enzyme Fom3. Biochemistry, 2018, 57, 4967-4971.	2.5	39
162	Characterization of Chlorovinylcobalamin, A Putative Intermediate in Reductive Degradation of Chlorinated Ethylenes. Journal of the American Chemical Society, 2003, 125, 4410-4411.	13.7	38

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163	Reassignment of the Structure of the Antibiotic A53868 Reveals an Unusual Amino Dehydrophosphonic Acid. Angewandte Chemie - International Edition, 2007, 46, 9089-9092.	13.8	38
164	On the Stereochemistry of 2-Hydroxyethylphosphonate Dioxygenase. Journal of the American Chemical Society, 2011, 133, 4236-4239.	13.7	38
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