Steven G Van Lanen

List of Publications by Year
in descending order

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74 papers	3,412 citations	136950 32 h-index	149698 56 g-index
76 all docs	76 docs citations	76 times ranked	3518 citing authors

#	Article	IF	Citations
1	Antitumor Antibiotics:â€‰ Bleomycin, Enediynes, and Mitomycin. Chemical Reviews, 2005, 105, 739-758.	47.7	502
2	Microbial genome mining for accelerated natural products discovery: is a renaissance in the making?. Journal of Industrial Microbiology and Biotechnology, 2014, 41, 175-184.	3.0	226
3	Microbial genomics for the improvement of natural product discovery. Current Opinion in Microbiology, 2006, 9, 252-260.	5.1	146
4	Characterization of the Maduropeptin Biosynthetic Gene Cluster from <i>Actinomadura madurae</i> ATCC 39144 Supporting a Unifying Paradigm for Enediyne Biosynthesis. Journal of the American Chemical Society, 2007, 129, 13082-13094.	13.7	134
5	The Neocarzinostatin Biosynthetic Gene Cluster from Streptomyces carzinostaticus ATCC 15944 Involving Two Iterative Type I Polyketide Synthases. Chemistry and Biology, 2005, 12, 293-302.	6.0	125
6	Facile Chemoenzymatic Strategies for the Synthesis and Utilization of <i>S</i>â€Adenosylâ€‹<scp>L</scp>â€Methionine Analogues. Angewandte Chemie - International Edition, 2014, 53, 3965-3969.	13.8	120
7	From cyclohydrolase to oxidoreductase: Discovery of nitrile reductase activity in a common fold. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 4264-4269.	7.1	100
8	Enzymatic strategies and biocatalysts for amide bond formation: tricks of the trade outside of the ribosome. Molecular BioSystems, 2015, 11, 338-353.	2.9	99
9	Biosynthesis of Enediyne Antitumor Antibiotics. Current Topics in Medicinal Chemistry, 2008, 8, 448-459.	2.1	91
10	Regiospecific Chlorination of (<i>S</i>)-Î²-Tyrosyl-<i>S</i>-Carrier Protein Catalyzed by SgcC3 in the Biosynthesis of the Enediyne Antitumor Antibiotic C-1027. Journal of the American Chemical Society, 2007, 129, 12432-12438.	13.7	87
11	A phosphopantetheinylating polyketide synthase producing a linear polyene to initiate enediyne antitumor antibiotic biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 1460-1465.	7.1	87
12	The Role of Tandem Acyl Carrier Protein Domains in Polyunsaturated Fatty Acid Biosynthesis. Journal of the American Chemical Society, 2008, 130, 6336-6337.	13.7	83
13	A free-standing condensation enzyme catalyzing ester bond formation in C-1027 biosynthesis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 4183-4188.	7.1	80
14	Amalgamation of Nucleosides and Amino Acids in Antibiotic Biosynthesis: Discovery of an <scp>l</scp>-Threonine:Uridine-5â€²-Aldehyde Transaldolase. Journal of the American Chemical Society, 2012, 134, 18514-18517.	13.7	59
15	Biosynthesis of Albomycin Î´₂ Provides a Template for Assembling Siderophore and Aminoacyl-tRNA Synthetase Inhibitor Conjugates. ACS Chemical Biology, 2012, 7, 1565-1575.	3.4	59
16	An ATP-independent strategy for amide bond formation in antibiotic biosynthesis. Nature Chemical Biology, 2010, 6, 581-586.	8.0	57
17	The Biosynthesis of Liposidomycinâ€like Aâ€90289 Antibiotics Featuring a New Type of Sulfotransferase. ChemBioChem, 2010, 11, 184-190.	2.6	53
18	The Bifunctional Glyceryl Transferase/Phosphatase OzmB Belonging to the HAD Superfamily That Diverts 1,3-Bisphosphoglycerate into Polyketide Biosynthesis. Journal of the American Chemical Society, 2006, 128, 10386-10387.	13.7	51

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19	Biosynthesis of the Î²-Amino Acid Moiety of the Enediyne Antitumor Antibiotic C-1027 Featuring Î²-Amino Acyl-S-carrier Protein Intermediates. Journal of the American Chemical Society, 2005, 127, 11594-11595.	13.7	49
20	Biosynthesis of the enediyne antitumor antibiotic C-1027 involves a new branching point in chorismate metabolism. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 494-499.	7.1	49
21	Characterization of LipL as a Non-heme, Fe(II)-dependent Î±-Ketoglutarate:UMP Dioxygenase That Generates Uridine-5â€²-aldehyde during A-90289 Biosynthesis*. Journal of Biological Chemistry, 2011, 286, 7885-7892.	3.4	47
22	Theranostic Gallium Siderophore Ciprofloxacin Conjugate with Broad Spectrum Antibiotic Potency. Journal of Medicinal Chemistry, 2019, 62, 9947-9960.	6.4	47
23	tRNA Modification by S-Adenosylmethionine:tRNA Ribosyltransferase-Isomerase. Journal of Biological Chemistry, 2003, 278, 10491-10499.	3.4	42
24	Terfestatins B and C, New <i>p</i>-Terphenyl Glycosides Produced by <i>Streptomyces</i> sp. RM-5â€“8. Organic Letters, 2015, 17, 2796-2799.	4.6	42
25	Hypermodification of tRNA in Thermophilic Archaea. Journal of Biological Chemistry, 2000, 275, 28731-28738.	3.4	39
26	Antibacterial and Cytotoxic Actinomycins Y₆â€“Y₉ and Zp from <i>Streptomyces</i> sp. Strain GÃ¶-GS12. Journal of Natural Products, 2016, 79, 2731-2739.	3.0	39
27	Characterization of the Two-Component, FAD-Dependent Monooxygenase SgcC That Requires Carrier Protein-Tethered Substrates for the Biosynthesis of the Enediyne Antitumor Antibiotic C-1027. Journal of the American Chemical Society, 2008, 130, 6616-6623.	13.7	37
28	Biosynthetic Origin and Mechanism of Formation of the Aminoribosyl Moiety of Peptidyl Nucleoside Antibiotics. Journal of the American Chemical Society, 2011, 133, 14452-14459.	13.7	36
29	Functional AdoMet Isosteres Resistant to Classical AdoMet Degradation Pathways. ACS Chemical Biology, 2016, 11, 2484-2491.	3.4	36
30	Refining and expanding nonribosomal peptide synthetase function and mechanism. Journal of Industrial Microbiology and Biotechnology, 2019, 46, 493-513.	3.0	36
31	Identification of the biosynthetic gene cluster of A-500359s in Streptomyces griseus SANK60196. Journal of Antibiotics, 2009, 62, 325-332.	2.0	34
32	Bi- and Tetracyclic Spirotetronates from the Coal Mine Fire Isolate <i>Streptomyces</i> sp. LC-6-2. Journal of Natural Products, 2017, 80, 1141-1149.	3.0	32
33	Macrolide derivatives reduce proinflammatory macrophage activation and macrophageâ€mediated neurotoxicity. CNS Neuroscience and Therapeutics, 2019, 25, 591-600.	3.9	30
34	Substrate Specificity of the Adenylation Enzyme SgcC1 Involved in the Biosynthesis of the Enediyne Antitumor Antibiotic C-1027. Journal of Biological Chemistry, 2006, 281, 29633-29640.	3.4	29
35	The Biosynthesis of Capuramycin-type Antibiotics. Journal of Biological Chemistry, 2015, 290, 13710-13724.	3.4	28
36	Insights into the Target Interaction of Naturally Occurring Muraymycin Nucleoside Antibiotics. ChemMedChem, 2018, 13, 779-784.	3.2	28

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37	Characterization of NcsB2 as a Promiscuous Naphthoic Acid/Coenzyme A Ligase Integral to the Biosynthesis of the Enediyne Antitumor Antibiotic Neocarzinostatin. Journal of the American Chemical Society, 2007, 129, 7728-7729.	13.7	27
38	Cooperation of Two Bifunctional Enzymes in the Biosynthesis and Attachment of Deoxysugars of the Antitumor Antibiotic Mithramycin. Angewandte Chemie - International Edition, 2012, 51, 10638-10642.	13.8	27
39	Structureâ€Based Gene Targeting Discovery of Sphaerimicin, a Bacterial Translocaseâ€…I Inhibitor. Angewandte Chemie - International Edition, 2013, 52, 11607-11611.	13.8	27
40	Pyridoxal-5â€²-phosphate as an oxygenase cofactor: Discovery of a carboxamide-forming, Î±-amino acid monooxygenase-decarboxylase. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 974-979.	7.1	26
41	Antibacterial Muraymycins from Mutant Strains of <i>Streptomyces</i> sp. NRRL 30471. Journal of Natural Products, 2018, 81, 942-948.	3.0	26
42	Baraphenazines Aâ€“G, Divergent Fused Phenazine-Based Metabolites from a Himalayan <i>Streptomyces</i>. Journal of Natural Products, 2019, 82, 1686-1693.	3.0	25
43	Pyridoxal-5â€²-phosphate-dependent alkyl transfer in nucleoside antibiotic biosynthesis. Nature Chemical Biology, 2020, 16, 904-911.	8.0	24
44	chapter 5 Iterative Type I Polyketide Synthases for Enediyne Core Biosynthesis. Methods in Enzymology, 2009, 459, 97-112.	1.0	22
45	Functional and Kinetic Analysis of the Phosphotransferase CapP Conferring Selective Self-resistance to Capuramycin Antibiotics. Journal of Biological Chemistry, 2010, 285, 12899-12905.	3.4	21
46	A Branch Point of Streptomyces Sulfur Amino Acid Metabolism Controls the Production of Albomycin. Applied and Environmental Microbiology, 2016, 82, 467-477.	3.1	20
47	Characterization of SgcE6, the flavin reductase component supporting FAD-dependent halogenation and hydroxylation in the biosynthesis of the enediyne antitumor antibiotic C-1027. FEMS Microbiology Letters, 2009, 300, 237-241.	1.8	19
48	Roles of the Synergistic Reductive <i>O</i>-Methyltransferase GilM and of <i>O</i>-Methyltransferase GilMT in the Gilvocarcin Biosynthetic Pathway. Journal of the American Chemical Society, 2012, 134, 12402-12405.	13.7	18
49	The muraminomicin biosynthetic gene cluster and enzymatic formation of the 2-deoxyaminoribosyl appendage. MedChemComm, 2013, 4, 239-243.	3.4	18
50	A biocatalytic approach to capuramycin analogues by exploiting a substrate permissive N-transacylase CapW. Organic and Biomolecular Chemistry, 2016, 14, 3956-3962.	2.8	16
51	Self-Resistance during Muraymycin Biosynthesis: a Complementary Nucleotidyltransferase and Phosphotransferase with Identical Modification Sites and Distinct Temporal Order. Antimicrobial Agents and Chemotherapy, 2018, 62, .	3.2	16
52	Characterization of a dual specificity aryl acid adenylation enzyme with dual function in nikkomycin biosynthesis. Biopolymers, 2010, 93, 791-801.	2.4	15
53	Progress in combinatorial biosynthesis for drug discovery. Drug Discovery Today: Technologies, 2006, 3, 285-292.	4.0	14
54	Identification and characterization of enzymes involved in the biosynthesis of pyrimidine nucleoside antibiotics. Natural Product Reports, 2021, 38, 1362-1407.	10.3	14

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55	Total synthesis of griseusins and elucidation of the griseusin mechanism of action. Chemical Science, 2019, 10, 7641-7648.	7.4	13
56	Biosynthetic and Synthetic Strategies for Assembling Capuramycin-Type Antituberculosis Antibiotics. Molecules, 2019, 24, 433.	3.8	12
57	Structure Determination, Functional Characterization, and Biosynthetic Implications of Nybomycin Metabolites from a Mining Reclamation Site-Associated <i>Streptomyces</i>. Journal of Natural Products, 2019, 82, 3469-3476.	3.0	12
58	Advances in polyketide synthase structure and function. Current Opinion in Drug Discovery & Development, 2008, 11, 186-95.	1.9	12
59	Delineating the earliest steps of gilvocarcin biosynthesis: role of GilP and GilQ in starter unit specificity. Organic and Biomolecular Chemistry, 2010, 8, 3851.	2.8	11
60	Evidence that oxidative dephosphorylation by the nonheme Fe(<scp>II</scp>), Î±â€ketoglutarate:<scp>UMP</scp> oxygenase occurs by stereospecific hydroxylation. FEBS Letters, 2017, 591, 468-478.	2.8	11
61	Enzymatic Synthesis of the Ribosylated Glycyl-Uridine Disaccharide Core of Peptidyl Nucleoside Antibiotics. Journal of Organic Chemistry, 2018, 83, 7239-7249.	3.2	11
62	The Role of a Nonribosomal Peptide Synthetase in <scp>l</scp>â€Lysine Lactamization During Capuramycin Biosynthesis. ChemBioChem, 2016, 17, 804-810.	2.6	10
63	Fe(II)-Dependent, Uridine-5â€²-Monophosphate Î±-Ketoglutarate Dioxygenases in the Synthesis of 5â€²-Modified Nucleosides. Methods in Enzymology, 2012, 516, 153-168.	1.0	8
64	Mithramycin 2â€²-Oximes with Improved Selectivity, Pharmacokinetics, and Ewing Sarcoma Antitumor Efficacy. Journal of Medicinal Chemistry, 2020, 63, 14067-14086.	6.4	8
65	Structure and Function of a Dual Reductaseâ€"Dehydratase Enzyme System Involved in <i>p</i>-Terphenyl Biosynthesis. ACS Chemical Biology, 2021, 16, 2816-2824.	3.4	8
66	Sugar-Pirating as an Enabling Platform for the Synthesis of 4,6-Dideoxyhexoses. Journal of the American Chemical Society, 2020, 142, 9389-9395.	13.7	7
67	Enzymatic C_{Î²}â€"H Functionalization of <scp>l</scp>-Arg and <scp>l</scp>-Leu in Nonribosomally Derived Peptidyl Natural Products: A Tale of Two Oxidoreductases. Journal of the American Chemical Society, 2021, 143, 19425-19437.	13.7	6
68	A High-Throughput Screen for Directed Evolution of the Natural Product Sulfotransferase LipB. Journal of Biomolecular Screening, 2011, 16, 845-851.	2.6	4
69	Computer-aided drug design of capuramycin analogues as anti-tuberculosis antibiotics by 3D-QSAR and molecular docking. Open Chemistry, 2017, 15, 299-307.	1.9	4
70	A sulfonate relay revealed. Nature Chemical Biology, 2013, 9, 602-603.	8.0	3
71	SAM cycles up for colibactin. Nature Chemical Biology, 2017, 13, 1059-1061.	8.0	3
72	Introduction to the special issue: â€œNatural Product Discovery and Development in the Genomic Era: 2019â€. Journal of Industrial Microbiology and Biotechnology, 2019, 46, 249-249.	3.0	1

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73	The crystal structure of <scp>AbsH3</scp>: A putative flavin adenine dinucleotideâ€dependent reductase in the abyssomicin biosynthesis pathway. Proteins: Structure, Function and Bioinformatics, 2021, 89, 132-137.	2.6	1
74	Structural characterization of DynU16, a START/Bet v1-like protein involved in dynemicin biosynthesis. Acta Crystallographica Section F, Structural Biology Communications, 2021, 77, 328-333.	0.8	1