

Gerald L Newton

List of Publications by Year in descending order

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all docs

66
docs citations

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times ranked

3826
citing authors

#	ARTICLE	IF	CITATIONS
1	N-methyl-bacillithiol, a Novel Thiol from Anaerobic Bacteria. MBio, 2019, 10, .	4.1	7
2	Identification of the S-transferase like superfamily bacillithiol transferases encoded by Bacillus subtilis. PLoS ONE, 2018, 13, e0192977.	2.5	8
3	Assembly of a nucleus-like structure during viral replication in bacteria. Science, 2017, 355, 194-197.	12.6	207
4	Application of bacterial cytological profiling to crude natural product extracts reveals the antibacterial arsenal of Bacillus subtilis. Journal of Antibiotics, 2016, 69, 353-361.	2.0	52
5	Bacillithiol: a key protective thiol in <i>Staphylococcus aureus</i> . Expert Review of Anti-Infective Therapy, 2015, 13, 1089-1107.	4.4	41
6	Purification and characterization of the Staphylococcus aureus bacillithiol transferase BstA. Biochimica Et Biophysica Acta - General Subjects, 2014, 1840, 2851-2861.	2.4	17
7	Detoxification of toxins by bacillithiol in Staphylococcus aureus. Microbiology (United Kingdom), 2012, 158, 1117-1126.	1.8	59
8	Characterization of BshA, bacillithiol glycosyltransferase from <i>Staphylococcus aureus</i> and <i>Bacillus subtilis</i> . FEBS Letters, 2012, 586, 1004-1008.	2.8	18
9	The DinB Superfamily Includes Novel Mycothiol, Bacillithiol, and Glutathione S-Transferases. Biochemistry, 2011, 50, 10751-10760.	2.5	59
10	The Mycobacterium tuberculosis CysQ phosphatase modulates the biosynthesis of sulfated glycolipids and bacterial growth. Bioorganic and Medicinal Chemistry Letters, 2011, 21, 4956-4959.	2.2	9
11	Chemical and Chemoenzymatic Syntheses of Bacillithiol: A Unique Low-Molecular-Weight Thiol amongst Low-Gram-Positive Bacteria. Angewandte Chemie - International Edition, 2011, 50, 7101-7104.	13.8	45
12	Evaluation of NTF1836 as an inhibitor of the mycothiol biosynthetic enzyme MshC in growing and non-replicating Mycobacterium tuberculosis. Bioorganic and Medicinal Chemistry, 2011, 19, 3956-3964.	3.0	28
13	Organic Hydroperoxide Resistance Protein and Ergothioneine Compensate for Loss of Mycothiol in Mycobacterium smegmatis Mutants. Journal of Bacteriology, 2011, 193, 1981-1990.	2.2	72
14	Biosynthesis and functions of bacillithiol, a major low-molecular-weight thiol in Bacilli. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 6482-6486.	7.1	214
15	Characterization of the N-Acetyl-d-glucosaminyl-Malate Synthase and Deacetylase Functions for Bacillithiol Biosynthesis in Bacillus anthracis. Biochemistry, 2010, 49, 8398-8414.	2.5	53
16	Unusual production of glutathione in Actinobacteria. Archives of Microbiology, 2009, 191, 89-93.	2.2	23
17	Bacillithiol is an antioxidant thiol produced in Bacilli. Nature Chemical Biology, 2009, 5, 625-627.	8.0	240
18	An N-acyl homolog of mycothiol is produced in marine actinomycetes. Archives of Microbiology, 2008, 190, 547-557.	2.2	23

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19	Regulation of mycothiol metabolism by <i>YnfR</i> and the thiol redox sensor anti-sigma factor RsrA. <i>Molecular Microbiology</i> , 2008, 68, 805-809.	2.5	20
20	Characterization of a mycothiol ligase mutant of <i>Rhodococcus jostii</i> RHA1. <i>Research in Microbiology</i> , 2008, 159, 643-650.	2.1	12
21	Biosynthesis and Functions of Mycothiol, the Unique Protective Thiol of <i>Actinobacteria</i> . <i>Microbiology and Molecular Biology Reviews</i> , 2008, 72, 471-494.	6.6	316
22	Mycothiol Import by <i>Mycobacterium smegmatis</i> and Function as a Resource for Metabolic Precursors and Energy Production. <i>Journal of Bacteriology</i> , 2007, 189, 6796-6805.	2.2	29
23	Structure of the Type III Pantothenate Kinase from <i>Bacillus anthracis</i> at 2.0 Å Resolution: Implications for Coenzyme A-Dependent Redox Biology. <i>Biochemistry</i> , 2007, 46, 3234-3245.	2.5	50
24	Purification and characterization of <i>Mycobacterium tuberculosis</i> 1-d-myo-inosityl-2-acetamido-2-deoxy- β -D-glucopyranoside deacetylase, MshB, a mycothiol biosynthetic enzyme. <i>Protein Expression and Purification</i> , 2006, 47, 542-550.	1.3	47
25	Cloning, expression and rapid purification of active recombinant mycothiol ligase as B1 immunoglobulin binding domain of streptococcal protein G, glutathione-S-transferase and maltose binding protein fusion proteins in <i>Mycobacterium smegmatis</i> . <i>Protein Expression and Purification</i> , 2006, 50, 128-136.	1.3	12
26	A coupled spectrophotometric assay for L-cysteine:1-d-myo-inosityl 2-amino-2-deoxy- β -D-glucopyranoside ligase and its application for inhibitor screening. <i>Analytical Biochemistry</i> , 2006, 353, 167-173.	2.4	23
27	A Mycothiol Synthase Mutant of <i>Mycobacterium tuberculosis</i> Has an Altered Thiol-Disulfide Content and Limited Tolerance to Stress. <i>Journal of Bacteriology</i> , 2006, 188, 6245-6252.	2.2	94
28	Biochemistry of the Initial Steps of Mycothiol Biosynthesis*. <i>Journal of Biological Chemistry</i> , 2006, 281, 33910-33920.	3.4	70
29	A Mycothiol Synthase Mutant of <i>Mycobacterium smegmatis</i> Produces Novel Thiols and Has an Altered Thiol Redox Status. <i>Journal of Bacteriology</i> , 2005, 187, 7309-7316.	2.2	78
30	Inhibition and kinetics of <i>Mycobacterium tuberculosis</i> and <i>Mycobacterium smegmatis</i> mycothiol-S-conjugate amidase by natural product inhibitors. <i>Bioorganic and Medicinal Chemistry</i> , 2003, 11, 601-608.	3.0	84
31	Association of mycothiol with protection of <i>Mycobacterium tuberculosis</i> from toxic oxidants and antibiotics. <i>Molecular Microbiology</i> , 2003, 47, 1723-1732.	2.5	156
32	Characterization of <i>Mycobacterium tuberculosis</i> Mycothiol-S-Conjugate Amidase. <i>Biochemistry</i> , 2003, 42, 12067-12076.	2.5	62
33	The Glycosyltransferase Gene Encoding the Enzyme Catalyzing the First Step of Mycothiol Biosynthesis (<i>mshA</i>). <i>Journal of Bacteriology</i> , 2003, 185, 3476-3479.	2.2	79
34	Mycothiol Is Essential for Growth of <i>Mycobacterium tuberculosis</i> Erdman. <i>Journal of Bacteriology</i> , 2003, 185, 6736-6740.	2.2	128
35	Mycothiol-Deficient <i>Mycobacterium smegmatis</i> Mutants Are Hypersensitive to Alkylating Agents, Free Radicals, and Antibiotics. <i>Antimicrobial Agents and Chemotherapy</i> , 2002, 46, 3348-3355.	3.2	175
36	ATP-Dependent L-Cysteine:1-d-myo-Inosityl 2-Amino-2-deoxy- β -D-glucopyranoside Ligase, Mycothiol Biosynthesis Enzyme MshC, Is Related to Class I Cysteinyl-tRNA Synthetases. <i>Biochemistry</i> , 2002, 41, 6885-6890.	2.5	98

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37	Identification of the mycothiol synthase gene (mshD) encoding the acetyltransferase producing mycothiol in actinomycetes. Archives of Microbiology, 2002, 178, 331-337.	2.2	80
38	Mycothiol biochemistry. Archives of Microbiology, 2002, 178, 388-394.	2.2	157
39	Novel Bromotyrosine Alkaloids:â€‰ Inhibitors of MycothiolS-Conjugate Amidase. Organic Letters, 2001, 3, 1543-1545.	4.6	78
40	N-Acetyl-1-d-myo-Inositol-2-Amino-2-Deoxy-Î±-d-Glucopyranoside Deacetylase (MshB) Is a Key Enzyme in Mycothiol Biosynthesis. Journal of Bacteriology, 2000, 182, 6958-6963.	2.2	105
41	A Novel Mycothiol-Dependent Detoxification Pathway in Mycobacteria Involving Mycothiol S-Conjugate Amidase. Biochemistry, 2000, 39, 10739-10746.	2.5	158
42	Improved Methods for Immunoassay of Mycothiol. Journal of Clinical Microbiology, 1999, 37, 2153-2157.	3.9	14
43	WR-2721 (amifostine) infusion in patients with Ewing's sarcoma receiving ifosfamide and cyclophosphamide with mesna: drug and thiol levels in plasma and blood cells, a Pediatric Oncology Group study. Cancer Chemotherapy and Pharmacology, 1999, 44, 498-504.	2.3	20
44	Characterization ofMycobacterium smegmatisMutants Defective in 1-d-myo-Inositol-2-amino-2-deoxy-Î±-d-glucopyranoside and Mycothiol Biosynthesis. Biochemical and Biophysical Research Communications, 1999, 255, 239-244.	2.1	96
45	An immunoassay for the detection and quantitative determination of mycothiol. Journal of Immunological Methods, 1998, 214, 29-39.	1.4	27
46	Determination of the cytoprotective agent WR-2721 (Amifostine, Ethiol Â®) and its metabolites in human blood using monobromobimane fluorescent labeling and high-performance liquid chromatography. Cancer Chemotherapy and Pharmacology, 1998, 42, 400-406.	2.3	19
47	Coenzyme A Disulfide Reductase, the Primary Low Molecular Weight Disulfide Reductase from Staphylococcus aureus. Journal of Biological Chemistry, 1998, 273, 5744-5751.	3.4	98
48	Mycothiol Biosynthesis and Metabolism. Journal of Biological Chemistry, 1998, 273, 30391-30397.	3.4	66
49	Binding of Radioprotective Thiols and Disulfides in Chinese Hamster V79 Cell Nuclei. Radiation Research, 1996, 146, 298.	1.5	24
50	Transport of Aminothiols Radioprotectors into Mammalian Cells: Passive Diffusion versus Mediated Uptake. Radiation Research, 1996, 146, 206.	1.5	24
51	The Structure of U17 Isolated from Streptomyces clavuligerus and its Properties as an Antioxidant Thiol. FEBS Journal, 1995, 230, 821-825.	0.2	115
52	A possible prebiotic synthesis of pantetheine, a precursor to coenzyme A. Nature, 1995, 373, 683-685.	27.8	128
53	[13] Determination of biothiols by bromobimane labeling and high-performance liquid chromatography. Methods in Enzymology, 1995, 251, 148-166.	1.0	111
54	Thiol and disulfide metabolites of the radiation protector and potential chemopreventive agent WR-2721 are linked to both its anti-cytotoxic and anti-mutagenic mechanisms of action. Carcinogenesis, 1995, 16, 767-774.	2.8	94

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55	Thiol Uptake by Chinese Hamster V79 Cells and Aerobic Radioprotection as a Function of the Net Charge on the Thiol. <i>Radiation Research</i> , 1992, 130, 194.	1.5	26
56	para-Sulfobenzoyloxybromobimane: A new membrane-impermeable reagent useful for the analysis of thiols and their export from cells. <i>Analytical Biochemistry</i> , 1992, 201, 30-42.	2.4	13
57	Purification of thiols from biological samples. <i>Methods in Enzymology</i> , 1987, 143, 96-101.	1.0	17
58	Determination of low-molecular-weight thiols using monobromobimane fluorescent labeling and high-performance liquid chromatography. <i>Methods in Enzymology</i> , 1987, 143, 85-96.	1.0	338
59	The evolution of glutathione metabolism in phototrophic microorganisms. <i>Journal of Molecular Evolution</i> , 1987, 25, 81-88.	1.8	62
60	Measurement of WR-2721, WR-1065, and WR-33278 in plasma. <i>International Journal of Radiation Oncology Biology Physics</i> , 1985, 11, 1193-1197.	0.8	22
61	Pharmacokinetics of WR-1065 in mouse tissue following treatment with WR-2721. <i>International Journal of Radiation Oncology Biology Physics</i> , 1984, 10, 1525-1528.	0.8	89
62	Analysis of biological thiols: Derivatization with monobromobimane and separation by reverse-phase high-performance liquid chromatography. <i>Analytical Biochemistry</i> , 1981, 114, 383-387.	2.4	448
63	Analysis of biological thiols: Quantitative determination of thiols at the picomole level based upon derivatization with monobromobimanes and separation by cation-exchange chromatography. <i>Analytical Biochemistry</i> , 1981, 111, 357-365.	2.4	193
64	Analysis of biological thiols: Derivatization with monobromotrimethylammoniumbimane and characterization by electrophoresis and chromatography. <i>Analytical Biochemistry</i> , 1980, 107, 1-10.	2.4	52
65	Bimane fluorescent labels. <i>Biochimica Et Biophysica Acta (BBA) - Protein Structure</i> , 1980, 622, 201-209.	1.7	52