Dominic J Campopiano

List of Publications by Year
in descending order

103	5,084	117625	95266
papers	citations	34 h-index	68 g-index

113	113	113	6412
all docs	docs citations	times ranked	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	Nucleophilic catalysis of acylhydrazone equilibration for protein-directed dynamic covalent chemistry. Nature Chemistry, 2010, 2, 490-497.	13.6	170
3	Dying and Necrotic Neutrophils Are Anti-Inflammatory Secondary to the Release of Î±-Defensins. Journal of Immunology, 2009, 183, 2122-2132.	0.8	141
4	Mechanism of 8-Amino-7-oxononanoate Synthase:â€‰ Spectroscopic, Kinetic, and Crystallographic Studies,. Biochemistry, 2000, 39, 516-528.	2.5	129
5	The crystal structure of 8-amino-7-oxononanoate synthase: a bacterial PLP-dependent, acyl-CoA-condensing enzyme 1 1Edited by R. Huber. Journal of Molecular Biology, 1998, 284, 401-419.	4.2	127
6	The Structure of Serine Palmitoyltransferase; Gateway to Sphingolipid Biosynthesis. Journal of Molecular Biology, 2007, 370, 870-886.	4.2	124
7	Sphingolipid biosynthesis in man and microbes. Natural Product Reports, 2018, 35, 921-954.	10.3	116
8	A Putative Gene Cluster for Aminoarabinose Biosynthesis Is Essential for Burkholderia cenocepacia Viability. Journal of Bacteriology, 2007, 189, 3639-3644.	2.2	101
9	The Chemical Basis of Serine Palmitoyltransferase Inhibition by Myriocin. Journal of the American Chemical Society, 2013, 135, 14276-14285.	13.7	98
10	Garlic Revisited: Antimicrobial Activity of Allicin-Containing Garlic Extracts against Burkholderia cepacia Complex. PLoS ONE, 2014, 9, e112726.	2.5	96
11	Characterisation of flavodoxin NADP+ oxidoreductase and flavodoxin; key components of electron transfer in Escherichia coli. FEBS Journal, 1998, 257, 577-585.	0.2	90
12	Structure-Activity Relationships in Defensin Dimers. Journal of Biological Chemistry, 2004, 279, 48671-48679.	3.4	85
13	Analysis and Separation of Residues Important for the Chemoattractant and Antimicrobial Activities of Î²-Defensin 3. Journal of Biological Chemistry, 2008, 283, 6631-6639.	3.4	81
14	Structural, mechanistic and regulatory studies of serine palmitoyltransferase. Biochemical Society Transactions, 2012, 40, 547-554.	3.4	80
15	Discovery of Glutathione S-Transferase Inhibitors Using Dynamic Combinatorial Chemistry. Journal of the American Chemical Society, 2006, 128, 8459-8467.	13.7	78
16	Is it biologically relevant to measure the structures of small peptides in the gas-phase?. International Journal of Mass Spectrometry, 2005, 240, 273-284.	1.5	67
17	An Improved Racemase/Acylase Biotransformation for the Preparation of Enantiomerically Pure Amino Acids. Journal of the American Chemical Society, 2012, 134, 19310-19313.	13.7	64
18	Synergistic Anion and Metal Binding to the Ferric Ion-binding Protein from Neisseria gonorrhoeae. Journal of Biological Chemistry, 2003, 278, 2490-2502.	3.4	61

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19	The External Aldimine Form of Serine Palmitoyltransferase. Journal of Biological Chemistry, 2009, 284, 17328-17339.	3.4	57
20	Maturation of McjA precursor peptide into active microcin MccJ25. Organic and Biomolecular Chemistry, 2007, 5, 2564.	2.8	49
21	A novel proteinâ€“mineral interface. Nature Structural and Molecular Biology, 2003, 10, 297-302.	8.2	48
22	Interaction of Human Î²-Defensin 2 (HBD2) with Glycosaminoglycans. Biochemistry, 2010, 49, 10486-10495.	2.5	46
23	Bivalent Enzyme Inhibitors Discovered Using Dynamic Covalent Chemistry. Chemistry - A European Journal, 2012, 18, 10562-10570.	3.3	44
24	Oxo-iron clusters in a bacterial iron-trafficking protein: new roles for a conserved motif. Biochemical Journal, 2003, 376, 35-41.	3.7	42
25	Synthesis and application of a new cleavable linker for â€œclickâ€•based affinity chromatography. Organic and Biomolecular Chemistry, 2010, 8, 56-59.	2.8	42
26	Histidine ligands in bacterial metallothionein enhance cluster stability. Journal of Biological Inorganic Chemistry, 2007, 12, 393-405.	2.6	41
27	Insights into How Nucleotide-Binding Domains Power ABC Transport. Structure, 2009, 17, 1213-1222.	3.3	40
28	Structural and Functional Studies of the Biotin Protein Ligase from Aquifex aeolicus Reveal a Critical Role for a Conserved Residue in Target Specificity. Journal of Molecular Biology, 2009, 387, 129-146.	4.2	39
29	Inhibition of the PLP-dependent enzyme serine palmitoyltransferase by cycloserine: evidence for a novel decarboxylative mechanism of inactivation. Molecular BioSystems, 2010, 6, 1682.	2.9	39
30	Molecular basis of Streptococcus mutans sortase A inhibition by the flavonoid natural product trans-chalcone. Chemical Communications, 2015, 51, 10483-10485.	4.1	39
31	IL-1Î²â€“Induced Protection of Keratinocytes against Staphylococcus aureus-Secreted Proteases Is Mediated by Human Î²-Defensin 2. Journal of Investigative Dermatology, 2017, 137, 95-105.	0.7	39
32	Plant host and sugar alcohol induced exopolysaccharide biosynthesis in the Burkholderia cepacia complex. Microbiology (United Kingdom), 2008, 154, 2513-2521.	1.8	37
33	Effective Binding and Sensing of Lipopolysaccharide: Combining Complementary Pattern Recognition Receptors. Angewandte Chemie - International Edition, 2009, 48, 356-360.	13.8	37
34	The serine palmitoyltransferase from Sphingomonas wittichii RW1: An interesting link to an unusual acyl carrier protein. Biopolymers, 2010, 93, 811-822.	2.4	37
35	Harnessing and engineering amide bond forming ligases for the synthesis of amides. Current Opinion in Chemical Biology, 2020, 55, 77-85.	6.1	36
36	Convergent evolution of bacterial ceramide synthesis. Nature Chemical Biology, 2022, 18, 305-312.	8.0	36

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37	Suicide inhibition of Î±-oxamine synthases: structures of the covalent adducts of 8-amino-7-oxononanoate synthase with trifluoroalanine. Organic and Biomolecular Chemistry, 2006, 4, 1209.	2.8	35
38	Desalting large protein complexes during native electrospray mass spectrometry by addition of amino acids to the working solution. Analyst, The, 2015, 140, 2679-2686.	3.5	35
39	Subdivision of the Bacterioferritin Comigratory Protein Family of Bacterial Peroxiredoxins Based on Catalytic Activity. Biochemistry, 2010, 49, 1319-1330.	2.5	34
40	Insights into the Conformations of Three Structurally Diverse Proteins: Cytochrome c, p53, and MDM2, Provided by Variable-Temperature Ion Mobility Mass Spectrometry. Analytical Chemistry, 2015, 87, 3231-3238.	6.5	33
41	Assembly of an Oxo-Zirconium(IV) Cluster in a Protein Cleft. Angewandte Chemie - International Edition, 2004, 43, 5914-5918.	13.8	32
42	Mechanism of Î±-oxoamine synthases: identification of the intermediate Claisen product in the 8-amino-7-oxononanoate synthase reaction. Chemical Communications, 2006, , 60-62.	4.1	32
43	Nitrilotriacetic Acid-Derivatized Quantum Dots for Simple Purification and Site-Selective Fluorescent Labeling of Active Proteins in a Single Step. Bioconjugate Chemistry, 2008, 19, 1964-1967.	3.6	32
44	Contributions of two UDP-glucose dehydrogenases to viability and polymyxin B resistance of Burkholderia cenocepacia. Microbiology (United Kingdom), 2009, 155, 2029-2039.	1.8	31
45	Covalent Dimer Species of Î²-Defensin Defr1 Display Potent Antimicrobial Activity against Multidrug-Resistant Bacterial Pathogens. Antimicrobial Agents and Chemotherapy, 2007, 51, 1719-1724.	3.2	29
46	Identification of the [Fe-S] Cluster-binding Residues of Escherichia coli Biotin Synthase. Journal of Biological Chemistry, 2000, 275, 13888-13894.	3.4	28
47	Purification and characterisation of the BIOH protein from the biotin biosynthetic pathway. FEBS Letters, 2002, 513, 299-304.	2.8	28
48	Metals in membranes. Chemical Society Reviews, 2007, 36, 968.	38.1	25
49	Partial Complementation of Sinorhizobium meliloti bacA Mutant Phenotypes by the Mycobacterium tuberculosis BacA Protein. Journal of Bacteriology, 2013, 195, 389-398.	2.2	24
50	Short Oxoâ€“Titanium(IV) Bond in Bacterial Transferrin: A Protein Target for Metalloantibiotics. Angewandte Chemie - International Edition, 2006, 45, 2758-2761.	13.8	23
51	Defensinâ€related peptide 1 (Defr1) is allelic to Defb8 and chemoattracts immature DC and CD4⁺ T cells independently of CCR6. European Journal of Immunology, 2009, 39, 1353-1360.	2.9	22
52	Synthesis of N-acyl amide natural products using a versatile adenylating biocatalyst. MedChemComm, 2019, 10, 1192-1196.	3.4	22
53	Isoleucine/leucine2 is essential for chemoattractant activity of Î²-defensin Defb14 through chemokine receptor 6. Molecular Immunology, 2010, 47, 1378-1382.	2.2	21
54	Using the pimeloyl-CoA synthetase adenylation fold to synthesize fatty acid thioesters. Nature Chemical Biology, 2017, 13, 660-667.	8.0	21

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55	Characterization of secreted sphingosineâ€1â€phosphate lyases required for virulence and intracellular survival of Burkholderia pseudomallei. Molecular Microbiology, 2016, 102, 1004-1019.	2.5	19
56	Characterization of inositol lipid metabolism in gut-associated Bacteroidetes. Nature Microbiology, 2022, 7, 986-1000.	13.3	19
57	Interrogating the Molecular Details of the Peroxiredoxin Activity of theEscherichia coliBacterioferritin Comigratory Protein Using High-Resolution Mass Spectrometry. Biochemistry, 2009, 48, 3904-3914.	2.5	18
58	Triazole biotin: a tight-binding biotinidase-resistant conjugate. Organic and Biomolecular Chemistry, 2013, 11, 7700.	2.8	18
59	Insight into Coenzyme A cofactor binding and the mechanism of acyl-transfer in an acylating aldehyde dehydrogenase from Clostridium phytofermentans. Scientific Reports, 2016, 6, 22108.	3.3	18
60	The mechanism of 7,8-diaminopelargonate synthase; the role of S-adenosylmethionine as the amino donor. Organic and Biomolecular Chemistry, 2003, 1, 3498.	2.8	17
61	Efficient Production of Human β-Defensin 2 (HBD2) in Escherichia coli. Protein and Peptide Letters, 2009, 16, 668-676.	0.9	17
62	The carbon chain-selective adenylation enzyme TamA: the missing link between fatty acid and pyrrole natural product biosynthesis. Organic and Biomolecular Chemistry, 2018, 16, 2735-2740.	2.8	17
63	Antimicrobial Activity of CHIR-090, an Inhibitor of Lipopolysaccharide Biosynthesis, against the Burkholderia cepacia Complex. Antimicrobial Agents and Chemotherapy, 2010, 54, 3531-3533.	3.2	15
64	Conformational Preferences of Linear Î²-Defensins Are Revealed by Ion Mobility-Mass Spectrometry. Journal of Physical Chemistry B, 2010, 114, 2312-2318.	2.6	15
65	Role of a conserved arginine residue during catalysis in serine palmitoyltransferase. FEBS Letters, 2011, 585, 1729-1734.	2.8	15
66	Biotinylation in the hyperthermophile Aquifex aeolicus. Isolation of a cross-linked BPL:BCCP complex. FEBS Journal, 2003, 270, 1277-1287.	0.2	14
67	Characterisation of DEFB107 by mass spectrometry: Lessons from an anti-antimicrobial defensin. International Journal of Mass Spectrometry, 2006, 252, 180-188.	1.5	14
68	l-Penicillamine is a mechanism-based inhibitor of serine palmitoyltransferase by forming a pyridoxal-5â€²-phosphate-thiazolidine adduct. MedChemComm, 2012, 3, 1003.	3.4	14
69	Structural and functional studies of defensin-inspired peptides. Biochemical Society Transactions, 2006, 34, 251.	3.4	13
70	Peptide Fragments of a Î²-Defensin Derivative with Potent Bactericidal Activity. Antimicrobial Agents and Chemotherapy, 2010, 54, 1922-1929.	3.2	13
71	Reconstitution of the pyridoxal 5â€²-phosphate (PLP) dependent enzyme serine palmitoyltransferase (SPT) with pyridoxal reveals a crucial role for the phosphate during catalysis. Chemical Communications, 2013, 49, 7058.	4.1	13
72	Binding a heparin derived disaccharide to defensin inspired peptides: insights to antimicrobial inhibition from gas-phase measurements. Physical Chemistry Chemical Physics, 2010, 12, 3589.	2.8	11

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73	Continuous Colorimetric Assay That Enables High-Throughput Screening ofN-Acetylamino Acid Racemases. Analytical Chemistry, 2015, 87, 3923-3928.	6.5	11
74	Characterization of homologous sphingosine-1-phosphate lyase isoforms in the bacterial pathogen Burkholderia pseudomallei. Journal of Lipid Research, 2017, 58, 137-150.	4.2	11
75	N-Phenylputrescine (NPP): a natural product inspired amine donor for biocatalysis. Green Chemistry, 2022, 24, 2010-2016.	9.0	11
76	Rational design of an inhibitor of dethiobiotin synthetase; interaction of 6-hydroxypyrimindin-4(3H)-one with the adenine base binding site. Tetrahedron, 1998, 54, 15891-15898.	1.9	8
77	Characterisation of 8-amino-7-oxononanoate synthase: A bacterial PLP-dependent, acyl CoA condensing enzyme. Biochemical Society Transactions, 1998, 26, S268-S268.	3.4	8
78	The Pyridoxal 5â€²-Phosphate (PLP)-Dependent Enzyme Serine Palmitoyltransferase (SPT): Effects of the Small Subunits and Insights from Bacterial Mimics of Human hLCB2a HSAN1 Mutations. BioMed Research International, 2013, 2013, 1-13.	1.9	8
79	Structural evidence for the covalent modification of FabH by 4,5-dichloro-1,2-dithiol-3-one (HR45). Organic and Biomolecular Chemistry, 2017, 15, 6310-6313.	2.8	8
80	Hydrogen Peroxide-Based Fluorometric Assay for Real-Time Monitoring of SAM-Dependent Methyltransferases. Frontiers in Bioengineering and Biotechnology, 2018, 6, 146.	4.1	8
81	Non-invasive ¹⁹F NMR analysis of a protein-templated N-acylhydrazone dynamic combinatorial library. Organic and Biomolecular Chemistry, 2018, 16, 8144-8149.	2.8	7
82	Use of isotopically labeled substrates reveals kinetic differences between human and bacterial serine palmitoyltransferase. Journal of Lipid Research, 2019, 60, 953-962.	4.2	7
83	Probing the NADPH-binding site of Escherichia coli flavodoxin oxidoreductase. Biochemical Journal, 2000, 352, 257.	3.7	6
84	Preparation of isotopically labelled recombinant Î²-defensin for NMR studies. Protein Expression and Purification, 2009, 65, 179-184.	1.3	6
85	Niobium Uptake and Release by Bacterial Ferric Ion Binding Protein. Bioinorganic Chemistry and Applications, 2010, 2010, 1-11.	4.1	6
86	Cubic crystals of chloramphenicol phosphotransferase fromStreptomyces venezuelaein complex with chloramphenicol. Acta Crystallographica Section D: Biological Crystallography, 1999, 55, 1086-1088.	2.5	5
87	Temperate bacteriophages DK4 and BcepMu fromBurkholderia cenocepaciaJ2315 are identical. FEMS Immunology and Medical Microbiology, 2005, 45, 349-350.	2.7	5
88	Determination of Protein Thiol Reduction Potential by Isotope Labeling and Intact Mass Measurement. Analytical Chemistry, 2016, 88, 2727-2733.	6.5	5
89	Solution Structure and Conformational Dynamics of a Doublet Acyl Carrier Protein from Prodigiosin Biosynthesis. Biochemistry, 2021, 60, 219-230.	2.5	4
90	Ferric ion (hydr)oxo clusters in the â€œVenus flytrapâ€•cleft of FbpA: MÃ¶ssbauer, calorimetric and mass spectrometric studies. Journal of Biological Inorganic Chemistry, 2012, 17, 573-588.	2.6	3

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91	ACPâ€”AasS You Like It. Chemistry and Biology, 2014, 21, 1257-1259.	6.0	3
92	The N-Acetyl Amino Acid Racemases (NAAARs); Native and evolved biocatalysts applied to the synthesis of canonical and non-canonical amino acids. Current Opinion in Biotechnology, 2021, 69, 212-220.	6.6	3
93	Creation of an Engineered Amide Synthetase Biocatalyst by the Rational Separation of a Twoâ€Step Nitrile Synthetase. ChemBioChem, 2022, 23, .	2.6	3
94	<scp>d</scp>-Phenylglycine aminotransferase (<scp>d</scp>-PhgAT) â€“ substrate scope and structural insights of a stereo-inverting biocatalyst used in the preparation of aromatic amino acids. Catalysis Science and Technology, 2020, 10, 6533-6543.	4.1	2
95	Buy one, get one free. , 2022, 1, 420-421.		2
96	Cloning, expression, purification, crystallization and preliminary X-ray characterization of the full-length single-stranded DNA-binding protein from the hyperthermophilic bacteriumAquifex aeolicus. Acta Crystallographica Section D: Biological Crystallography, 2004, 60, 2009-2012.	2.5	1
97	Direct monitoring of biocatalytic deacetylation of amino acid substrates by 1H NMR reveals fine details of substrate specificity. Organic and Biomolecular Chemistry, 2021, 19, 4904-4909.	2.8	1
98	An investigation of flavoprotein redox partners. Biochemical Society Transactions, 1998, 26, S271-S271.	3.4	0
99	Ferredoxin NADP+ reductase; identification of key residues involved in NADPH binding and electron transfer. Biochemical Society Transactions, 1999, 27, A56-A56.	3.4	0
100	Characterisation of ferredoxin (flavodoxin) NADP+ reductase and flavodoxin; key components of electron transfer in Escherichia coli. Biochemical Society Transactions, 1999, 27, A56-A56.	3.4	0
101	Editorial overview: Biocatalysis and biotransformations. Current Opinion in Chemical Biology, 2020, 55, A1-A3.	6.1	0
102	Mechanistic Studies Of 8-Amino-7-Oxononanoate Synthase.. , 2000, , 135-142.		0
103	Essential metals. Natural Product Reports, 2007, 24, B46-7.	10.3	0