

# David J Clarke

## List of Publications by Year in descending order

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60  
papers

1,933  
citations

201385

27  
h-index

276539

41  
g-index

65  
all docs

65  
docs citations

65  
times ranked

3182  
citing authors

#	ARTICLE	IF	CITATIONS
1	Dying and Necrotic Neutrophils Are Anti-Inflammatory Secondary to the Release of Î±-Defensins. <i>Journal of Immunology</i> , 2009, 183, 2122-2132.	0.4	141
2	The Chemical Basis of Serine Palmitoyltransferase Inhibition by Myriocin. <i>Journal of the American Chemical Society</i> , 2013, 135, 14276-14285.	6.6	98
3	Garlic Revisited: Antimicrobial Activity of Allicin-Containing Garlic Extracts against <i>Burkholderia cepacia</i> Complex. <i>PLoS ONE</i> , 2014, 9, e112726.	1.1	96
4	Structure-Activity Relationships in Defensin Dimers. <i>Journal of Biological Chemistry</i> , 2004, 279, 48671-48679.	1.6	85
5	Analysis and Separation of Residues Important for the Chemoattractant and Antimicrobial Activities of Î²-Defensin 3. <i>Journal of Biological Chemistry</i> , 2008, 283, 6631-6639.	1.6	81
6	S-nitrosylation of the zinc finger protein SRG1 regulates plant immunity. <i>Nature Communications</i> , 2018, 9, 4226.	5.8	78
7	Structural characterization of encapsulated ferritin provides insight into iron storage in bacterial nanocompartments. <i>ELife</i> , 2016, 5, .	2.8	77
8	Is it biologically relevant to measure the structures of small peptides in the gas-phase?. <i>International Journal of Mass Spectrometry</i> , 2005, 240, 273-284.	0.7	67
9	Chemical Diversity and Complexity of Scotch Whisky as Revealed by High-Resolution Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 200-213.	1.2	67
10	Interactive van Krevelen diagrams â€“ Advanced visualisation of mass spectrometry data of complex mixtures. <i>Rapid Communications in Mass Spectrometry</i> , 2017, 31, 658-662.	0.7	61
11	Maturation of MccJ precursor peptide into active microcin MccJ25. <i>Organic and Biomolecular Chemistry</i> , 2007, 5, 2564.	1.5	49
12	Identification of Two Reactive Cysteine Residues in the Tumor Suppressor Protein p53 Using Top-Down FTICR Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2011, 22, 888-897.	1.2	43
13	Probing the Conformational Diversity of Cancer-Associated Mutations in p53 with Ion-Mobility Mass Spectrometry. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 4370-4374.	7.2	41
14	Structural and Functional Studies of the Biotin Protein Ligase from <i>Aquifex aeolicus</i> Reveal a Critical Role for a Conserved Residue in Target Specificity. <i>Journal of Molecular Biology</i> , 2009, 387, 129-146.	2.0	39
15	Inhibition of the PLP-dependent enzyme serine palmitoyltransferase by cycloserine: evidence for a novel decarboxylative mechanism of inactivation. <i>Molecular BioSystems</i> , 2010, 6, 1682.	2.9	39
16	IL-1Î²-Induced Protection of Keratinocytes against <i>Staphylococcus aureus</i> -Secreted Proteases Is Mediated by Human Î²-Defensin 2. <i>Journal of Investigative Dermatology</i> , 2017, 137, 95-105.	0.3	39
17	Cellular redox potential and the biomolecular electrochemical series: A systems hypothesis. <i>Free Radical Biology and Medicine</i> , 2012, 53, 280-288.	1.3	38
18	Plant host and sugar alcohol induced exopolysaccharide biosynthesis in the <i>Burkholderia cepacia</i> complex. <i>Microbiology (United Kingdom)</i> , 2008, 154, 2513-2521.	0.7	37

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19	The serine palmitoyltransferase from <i>Sphingomonas wittichii</i> RW1: An interesting link to an unusual acyl carrier protein. <i>Biopolymers</i> , 2010, 93, 811-822.	1.2	37
20	Mapping a Noncovalent Proteinâ€“Peptide Interface by Top-Down FTICR Mass Spectrometry Using Electron Capture Dissociation. <i>Journal of the American Society for Mass Spectrometry</i> , 2011, 22, 1432-1440.	1.2	36
21	The pyrenoidal linker protein EPYC1 phase separates with hybrid <i>Arabidopsis</i> â€“ <i>Chlamydomonas</i> Rubisco through interactions with the algal Rubisco small subunit. <i>Journal of Experimental Botany</i> , 2019, 70, 5271-5285.	2.4	36
22	Desalting large protein complexes during native electrospray mass spectrometry by addition of amino acids to the working solution. <i>Analyst</i> , 2015, 140, 2679-2686.	1.7	35
23	Subdivision of the Bacterioferritin Comigratory Protein Family of Bacterial Peroxiredoxins Based on Catalytic Activity. <i>Biochemistry</i> , 2010, 49, 1319-1330.	1.2	34
24	Insights into the Conformations of Three Structurally Diverse Proteins: Cytochrome <i>c</i> , p53, and MDM2, Provided by Variable-Temperature Ion Mobility Mass Spectrometry. <i>Analytical Chemistry</i> , 2015, 87, 3231-3238.	3.2	33
25	Dissecting the Dynamic Conformations of the Metamorphic Protein Lymphotactin. <i>Journal of Physical Chemistry B</i> , 2014, 118, 12348-12359.	1.2	32
26	Covalent Dimer Species of Î²-Defensin Defr1 Display Potent Antimicrobial Activity against Multidrug-Resistant Bacterial Pathogens. <i>Antimicrobial Agents and Chemotherapy</i> , 2007, 51, 1719-1724.	1.4	29
27	Untargeted Metabolite Mapping in 3D Cell Culture Models Using High Spectral Resolution FT-ICR Mass Spectrometry Imaging. <i>Analytical Chemistry</i> , 2019, 91, 9522-9529.	3.2	28
28	MALDI Matrix Application Utilizing a Modified 3D Printer for Accessible High Resolution Mass Spectrometry Imaging. <i>Analytical Chemistry</i> , 2018, 90, 8742-8749.	3.2	27
29	Complementary Ionization Techniques for the Analysis of Scotch Whisky by High Resolution Mass Spectrometry. <i>Analytical Chemistry</i> , 2018, 90, 11265-11272.	3.2	23
30	Conservation of the structural and functional architecture of encapsulated ferritins in bacteria and archaea. <i>Biochemical Journal</i> , 2019, 476, 975-989.	1.7	23
31	Pore dynamics and asymmetric cargo loading in an encapsulin nanocompartment. <i>Science Advances</i> , 2022, 8, eabj4461.	4.7	22
32	Redox regulation of tumour suppressor protein p53: identification of the sites of hydrogen peroxide oxidation and glutathionylation. <i>Chemical Science</i> , 2013, 4, 1257.	3.7	21
33	Characterization of secreted sphingosineâ€“1-phosphate lyases required for virulence and intracellular survival of <i>Burkholderia pseudomallei</i> . <i>Molecular Microbiology</i> , 2016, 102, 1004-1019.	1.2	19
34	Interrogating the Molecular Details of the Peroxiredoxin Activity of the <i>Escherichia coli</i> Bacterioferritin Comigratory Protein Using High-Resolution Mass Spectrometry. <i>Biochemistry</i> , 2009, 48, 3904-3914.	1.2	18
35	Insight into Coenzyme A cofactor binding and the mechanism of acyl-transfer in an acylating aldehyde dehydrogenase from <i>Clostridium phytofermentans</i> . <i>Scientific Reports</i> , 2016, 6, 22108.	1.6	18
36	Autopiquer - a Robust and Reliable Peak Detection Algorithm for Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2017, 28, 253-262.	1.2	18

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37	Efficient Production of Human $\alpha$ -Defensin 2 (HBD2) in Escherichia coli. Protein and Peptide Letters, 2009, 16, 668-676.	0.4	17
38	Online Quench-Flow Electrospray Ionization Fourier Transform Ion Cyclotron Resonance Mass Spectrometry for Elucidating Kinetic and Chemical Enzymatic Reaction Mechanisms. Analytical Chemistry, 2010, 82, 1897-1904.	3.2	17
39	New cytotoxic callipeltins from the Solomon Island marine sponge Asteropus sp.. Tetrahedron, 2016, 72, 6929-6934.	1.0	17
40	Top-down protein sequencing by CID and ECD using desorption electrospray ionisation (DESI) and high-field FTICR mass spectrometry. International Journal of Mass Spectrometry, 2010, 289, 54-57.	0.7	15
41	Conformational Preferences of Linear $\alpha$ -Defensins Are Revealed by Ion Mobility-Mass Spectrometry. Journal of Physical Chemistry B, 2010, 114, 2312-2318.	1.2	15
42	Biotinylation in the hyperthermophile Aquifex aeolicus. Isolation of a cross-linked BPL:BCCP complex. FEBS Journal, 2003, 270, 1277-1287.	0.2	14
43	l-Penicillamine is a mechanism-based inhibitor of serine palmitoyltransferase by forming a pyridoxal-5 $\alpha$ -phosphate-thiazolidine adduct. MedChemComm, 2012, 3, 1003.	3.5	14
44	Mass spectrometry reveals the assembly pathway of encapsulated ferritins and highlights a dynamic ferroxidase interface. Chemical Communications, 2020, 56, 3417-3420.	2.2	14
45	Dissection of the DNA Mimicry of the Bacteriophage T7 Ocr Protein using Chemical Modification. Journal of Molecular Biology, 2009, 391, 565-576.	2.0	13
46	Reconstitution of the pyridoxal 5 $\alpha$ -phosphate (PLP) dependent enzyme serine palmitoyltransferase (SPT) with pyridoxal reveals a crucial role for the phosphate during catalysis. Chemical Communications, 2013, 49, 7058.	2.2	13
47	High resolution fourier transform ion cyclotron resonance mass spectrometry (FT-ICR MS) for the characterisation of enzymatic processing of commercial lignin. New Biotechnology, 2019, 52, 1-8.	2.4	13
48	Dissecting the structural and functional roles of a putative metal entry site in encapsulated ferritins. Journal of Biological Chemistry, 2020, 295, 15511-15526.	1.6	13
49	Mass spectrometry analysis of the oxidation states of the pro-oncogenic protein anterior gradient-2 reveals covalent dimerization via an intermolecular disulphide bond. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2016, 1864, 551-561.	1.1	12
50	Binding a heparin derived disaccharide to defensin inspired peptides: insights to antimicrobial inhibition from gas-phase measurements. Physical Chemistry Chemical Physics, 2010, 12, 3589.	1.3	11
51	Characterization of homologous sphingosine-1-phosphate lyase isoforms in the bacterial pathogen Burkholderia pseudomallei. Journal of Lipid Research, 2017, 58, 137-150.	2.0	11
52	Restriction endonuclease TseI cleaves A:A and T:T mismatches in CAG and CTG repeats. Nucleic Acids Research, 2013, 41, 4999-5009.	6.5	10
53	Isotope Depletion Mass Spectrometry (ID-MS) for Accurate Mass Determination and Improved Top-Down Sequence Coverage of Intact Proteins. Journal of the American Society for Mass Spectrometry, 2020, 31, 700-710.	1.2	10
54	Use of isotopically labeled substrates reveals kinetic differences between human and bacterial serine palmitoyltransferase. Journal of Lipid Research, 2019, 60, 953-962.	2.0	7

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55	Native ion mobility mass spectrometry reveals that small organic acid fragments impart gas-phase stability to carbonic anhydrase II. <i>Rapid Communications in Mass Spectrometry</i> , 2020, 34, e8570.	0.7	7
56	Preparation of isotopically labelled recombinant $\hat{I}^2$ -defensin for NMR studies. <i>Protein Expression and Purification</i> , 2009, 65, 179-184.	0.6	6
57	Determination of Protein Thiol Reduction Potential by Isotope Labeling and Intact Mass Measurement. <i>Analytical Chemistry</i> , 2016, 88, 2727-2733.	3.2	5
58	A native mass spectrometry platform identifies HOP inhibitors that modulate the HSP90 $\hat{a}$ €“HOP protein $\hat{a}$ €“protein interaction. <i>Chemical Communications</i> , 2021, 57, 10919-10922.	2.2	3
59	An affinity purification procedure to isolate oxidized p53. <i>Analytical Biochemistry</i> , 2012, 420, 96-98.	1.1	2
60	Cloning, expression, purification, crystallization and preliminary X-ray characterization of the full-length single-stranded DNA-binding protein from the hyperthermophilic bacterium <i>Aquifex aeolicus</i> . <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2004, 60, 2009-2012.	2.5	1