

# J P Malthouse

## List of Publications by Year in descending order

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79  
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1,223  
citations

448610

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32  
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all docs

80  
docs citations

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times ranked

949  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Nuclear Magnetic Resonance-Based Demonstration of Substantial Oxidative L-Alanine Metabolism and L-Alanine-Enhanced Glucose Metabolism in a Clonal Pancreatic $\beta$ -Cell Line : Metabolism of L-Alanine Is Important to the Regulation of Insulin Secretion. <i>Diabetes</i> , 2002, 51, 1714-1721.	0.3	124
2	Vinyl Sulfone-Based Peptidomimetics as Anti-Trypanosomal Agents: Design, Synthesis, Biological and Computational Evaluation. <i>Journal of Medicinal Chemistry</i> , 2013, 56, 6638-6650.	2.9	93
3	Structure and stereochemistry of tetrahedral inhibitor complexes of papain by direct NMR observation. <i>Journal of the American Chemical Society</i> , 1983, 105, 6324-6325.	6.6	55
4	Studying enzyme mechanism by $^{13}\text{C}$ nuclear magnetic resonance. <i>Science</i> , 1984, 225, 883-889.	6.0	49
5	Carbon-13 NMR study of the ionizations within a trypsin-chloromethyl ketone inhibitor complex. <i>Biochemistry</i> , 1985, 24, 3478-3487.	1.2	49
6	Detection of a tetrahedral adduct in a trypsin-chloromethyl ketone specific inhibitor complex by carbon-13 NMR. <i>Journal of the American Chemical Society</i> , 1983, 105, 1685-1686.	6.6	47
7	Carbon-13 NMR study of the stereospecificity of the thiohemiacetals formed on inhibition of papain by specific enantiomeric aldehydes. <i>Biochemistry</i> , 1986, 25, 2293-2298.	1.2	45
8	A study of the stabilization of tetrahedral adducts by trypsin and $\beta$ -chymotrypsin. <i>Biochemical Journal</i> , 1992, 286, 889-900.	1.7	41
9	A $^{13}\text{C}$ -n.m.r. investigation of the ionizations within an inhibitor- $\beta$ -chymotrypsin complex. Evidence that both $\beta$ -chymotrypsin and trypsin stabilize a hemiketal oxyanion by similar mechanisms. <i>Biochemical Journal</i> , 1989, 258, 853-859.	1.7	37
10	NMR and Alanine Scan Studies of Glucose-dependent Insulinotropic Polypeptide in Water. <i>Journal of Biological Chemistry</i> , 2006, 281, 16370-16376.	1.6	37
11	Cryoenzymology of proteases: NMR detection of a productive thioacyl derivative of papain at subzero temperatures. <i>Journal of the American Chemical Society</i> , 1982, 104, 6811-6813.	6.6	33
12	Characterization of the Electrostatic Perturbation of a Catalytic Site (Cys)-Sulfenyl/(His)-Im+H Ion-pair in One Type of Serine Proteinase Architecture by Kinetic and Computational Studies on Chemically Mutated Subtilisin Variants. <i>Journal of Molecular Biology</i> , 1996, 257, 1088-1111.	2.0	32
13	The bioactive conformation of glucose-dependent insulinotropic polypeptide by NMR and CD spectroscopy. <i>Proteins: Structure, Function and Bioinformatics</i> , 2007, 68, 92-99.	1.5	32
14	The case for assigning a value of approximately 4 to pK <sub>a</sub> of the essential histidine-cysteine interactive systems of papain, bromelain and ficin. <i>FEBS Letters</i> , 1975, 50, 365-368.	1.3	25
15	pH-Dependent Spectroscopic Changes Associated with the Hydroquinone of FMN in Flavodoxins. <i>Biochemistry</i> , 1999, 38, 3753-3762.	1.2	21
16	NMR structure of the glucose-dependent insulinotropic polypeptide fragment, GIP(1-30)amide. <i>Biochemical and Biophysical Research Communications</i> , 2004, 325, 281-286.	1.0	21
17	A comparative study of the kinetics and stereochemistry of the serine hydroxymethyltransferase- and tryptophan synthase-catalysed exchange of the pro-2R and pro-2S protons of glycine. <i>Biochemical Journal</i> , 1991, 274, 807-812.	1.7	20
18	Crystal structure of $\beta$ -chymotrypsin bound to a peptidyl chloromethyl ketone inhibitor. <i>Acta Crystallographica Section D: Biological Crystallography</i> , 2000, 56, 280-286.	2.5	20

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19	Prolonged L-alanine exposure induces changes in metabolism, Ca <sup>2+</sup> handling and desensitization of insulin secretion in clonal pancreatic $\beta^2$ -cells. <i>Clinical Science</i> , 2009, 116, 341-351.	1.8	20
20	Carbon-13 NMR of cyanylated flavodoxin from <i>Megasphaera elsdenii</i> and of thiocyanate model compounds. <i>Biochemistry</i> , 1992, 31, 7922-7930.	1.2	19
21	Claisen-Type Addition of Glycine to Pyridoxal in Water. <i>Journal of the American Chemical Society</i> , 2004, 126, 10538-10539.	6.6	19
22	A <sup>13</sup> C-n.m.r. investigation of ionizations within a trypsin-inhibitor complex. Evidence that the p <i>K</i> <sub>a</sub> of histidine-57 is raised by interaction with the hemiketal oxyanion. <i>Biochemical Journal</i> , 1985, 231, 677-682.	1.7	18
23	<sup>13</sup> C and <sup>1</sup> H NMR Studies of Ionizations and Hydrogen Bonding in Chymotrypsin-Glyoxal Inhibitor Complexes. <i>Journal of Biological Chemistry</i> , 2007, 282, 7852-7861.	1.6	18
24	Cryoenzymology of trypsin. A detailed kinetic study of the trypsin-catalysed hydrolysis of <i>N</i> - $\beta$ -benzyloxycarbonyl- <i>L</i> -lysine <i>p</i> -nitrophenyl ester at low temperatures. <i>Biochemical Journal</i> , 1983, 215, 555-563.	1.7	15
25	A study of the stabilization of the oxyanion of tetrahedral adducts by trypsin, chymotrypsin and subtilisin. <i>Biochemical Journal</i> , 1995, 307, 353-359.	1.7	15
26	<sup>13</sup> C NMR Study of How the Oxyanion p <i>K</i> <sub>a</sub> Values of Subtilisin and Chymotrypsin Tetrahedral Adducts Are Affected by Different Amino Acid Residues Binding in Enzyme Subsites S1~S4. <i>Biochemistry</i> , 1999, 38, 6187-6194.	1.2	15
27	<sup>13</sup> C-NMR study of the inhibition of $\beta$ -chymotrypsin by a tripeptide-glyoxal inhibitor. <i>Biochemical Journal</i> , 2002, 362, 339-347.	1.7	15
28	Chemical synthesis and papain-catalysed hydrolysis of <i>N</i> - $\beta$ -benzyloxycarbonyl- <i>L</i> -lysine <i>p</i> -nitroanilide. <i>Biochemical Journal</i> , 1985, 226, 601-606.	1.7	14
29	The effect of different amino acid side chains on the stereospecificity and catalytic efficiency of the tryptophan synthase-catalysed exchange of the $\beta$ -protons of amino acids. <i>Biochemical Journal</i> , 1996, 314, 787-791.	1.7	14
30	Importance of Tetrahedral Intermediate Formation in the Catalytic Mechanism of the Serine Proteases Chymotrypsin and Subtilisin. <i>Biochemistry</i> , 2012, 51, 6164-6170.	1.2	14
31	Ionisations within a subtilisin-glyoxal inhibitor complex. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2005, 1749, 33-41.	1.1	13
32	A study of the relaxation parameters of a <sup>13</sup> C-enriched methylene carbon and a <sup>13</sup> C-enriched perdeuteromethylene carbon attached to chymotrypsin. <i>Biochemical Journal</i> , 1991, 280, 649-657.	1.7	12
33	Determination of the ionization state of the active-site histidine in a subtilisin-(chloromethane) Tj ETQq1 1 0.784314 rgBT /Overlock 10	1.7	12
34	A substrate-induced change in the stereospecificity of the serine-hydroxymethyltransferase-catalysed exchange of the alpha-protons of amino acids. Evidence for a second catalytic site. <i>FEBS Journal</i> , 1998, 252, 113-117.	0.2	12
35	The pyridoxal-5-phosphate-dependent catalytic antibody 15A9: its efficiency and stereospecificity in catalysing the exchange of the $\beta$ -protons of glycine. <i>FEBS Letters</i> , 1998, 427, 74-78.	1.3	10
36	<sup>13</sup> C-NMR study of the inhibition of $\beta$ -chymotrypsin by a tripeptide-glyoxal inhibitor. <i>Biochemical Journal</i> , 2002, 362, 339.	1.7	10

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37	An NMR study of alterations in [1- <sup>13</sup> C]glucose metabolism in C6 glioma cells by gliotoxic amino acids. <i>Neurochemistry International</i> , 2003, 42, 441-448.	1.9	10
38	<sup>13</sup> C- and <sup>1</sup> H-NMR studies of oxyanion and tetrahedral intermediate stabilization by the serine proteinases: optimizing inhibitor warhead specificity and potency by studying the inhibition of the serine proteinases by peptide-derived chloromethane and glyoxal inhibitors. <i>Biochemical Society Transactions</i> , 2007, 35, 566-570.	1.6	10
39	Determination of the Structure of Tetrahedral Transition State Analogues Bound at the Active Site of Chymotrypsin Using <sup>18</sup> O and <sup>2</sup> H Isotope Shifts in the <sup>13</sup> C NMR Spectra of Glyoxal Inhibitors. <i>Biochemistry</i> , 2007, 46, 12868-12874.	1.2	10
40	Conformational, receptor interaction and alanine scan studies of glucose-dependent insulinotropic polypeptide. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 882-888.	1.1	10
41	Factors affecting the stereospecificity and catalytic efficiency of the tryptophan synthase-catalysed exchange of the pro-2 <sup>R</sup> and pro-2 <sup>S</sup> protons of glycine. <i>Biochemical Journal</i> , 1995, 311, 1015-1019.	1.7	9
42	Gliotoxins disrupt alanine metabolism and glutathione production in C6 glioma cells: a <sup>13</sup> C NMR spectroscopic study. <i>Neurochemistry International</i> , 2004, 45, 1155-1165.	1.9	9
43	NMR Study of the Inhibition of Pepsin by Glyoxal Inhibitors: Mechanism of Tetrahedral Intermediate Stabilization by the Aspartyl Proteases. <i>Biochemistry</i> , 2007, 46, 11205-11215.	1.2	9
44	Hemiacetal stabilization in a chymotrypsin inhibitor complex and the reactivity of the hydroxyl group of the catalytic serine residue of chymotrypsin. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2014, 1844, 1119-1127.	1.1	9
45	Quantifying tetrahedral adduct formation and stabilization in the cysteine and the serine proteases. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2015, 1854, 1382-1391.	1.1	8
46	Enzymatic synthesis of $\delta$ -deuterated amino acids. <i>Biochemical Society Transactions</i> , 1996, 24, 133S-133S.	1.6	7
47	The aspartate aminotransferase-catalysed exchange of the $\delta$ -protons of aspartate and glutamate: the effects of the R386A and R292V mutations on this exchange reaction. <i>BBA - Proteins and Proteomics</i> , 1999, 1434, 191-201.	2.1	7
48	A <sup>13</sup> C-NMR study of the inhibition of papain by a dipeptide-glyoxal inhibitor. <i>Biochemical Journal</i> , 2002, 366, 983-987.	1.7	7
49	Kinetic Studies of the Effect of pH on the Trypsin-Catalyzed Hydrolysis of $N$ - $\delta$ -benzyloxycarbonyl-L-lysine-p-nitroanilide: Mechanism of Trypsin Catalysis. <i>ACS Omega</i> , 2020, 5, 4915-4923.	1.6	7
50	The synthesis and characterisation of a glyoxal inhibitor of chymotrypsin. <i>Biochemical Society Transactions</i> , 1996, 24, 129S-129S.	1.6	6
51	Enzymatic synthesis of isotopically labelled serine and tryptophan for application in peptide synthesis. <i>Biochemistry</i> , 1997, 3, 361-366.		6
52	Oxyanion and tetrahedral intermediate stabilisation by subtilisin: Detection of a new tetrahedral adduct. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2009, 1794, 1251-1258.	1.1	6
53	The stereospecificity and catalytic efficiency of the tryptophan synthase-catalysed exchange of the $\delta$ -protons of amino acids. <i>Biochemical Journal</i> , 2004, 381, 847-852.	1.7	5
54	A <sup>13</sup> C-NMR study of azacryptand complexes. <i>Dalton Transactions</i> , 2014, 43, 13557-13562.	1.6	5

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55	Kinetic analysis of the exchange of the $\alpha$ -protons of amino acids by pyridoxal-phosphate-dependent enzymes. <i>Biochemical Society Transactions</i> , 1996, 24, 134S-134S.	1.6	4
56	Proof that serine hydroxymethyltransferase retains its specificity for the pro-2S proton of glycine in the absence of tetrahydrofolate. <i>Biochemical Society Transactions</i> , 1996, 24, 132S-132S.	1.6	4
57	79 a comparison of some of the methods available for analysing the substrate dependence of the exchange of the $\alpha$ -protons of amino acids catalysed by pyridoxal-phosphate-dependent enzymes. <i>Biochemical Society Transactions</i> , 1998, 26, S66-S66.	1.6	4
58	Using NMR as a Probe of Protein Structure and Function. <i>Biochemical Society Transactions</i> , 1999, 27, 701-713.	1.6	4
59	Biosynthesis of isotopically enriched $\alpha$ -serine. <i>Biochemical Society Transactions</i> , 1988, 16, 179-180.	1.6	3
60	A study of the tryptophan synthase catalysed H/D exchange of the $\alpha$ -protons of amino acids. <i>Biochemical Society Transactions</i> , 1994, 22, 43S-43S.	1.6	3
61	The effect of histidine-228 on the catalytic efficiency and stereospecificity of the serine hydroxymethyltransferase catalysed exchange of the $\alpha$ -protons of amino acids. <i>BBA - Proteins and Proteomics</i> , 1998, 1386, 220-226.	2.1	3
62	Stereospecificity of $\alpha$ -proton exchange reactions catalysed by pyridoxal-5-phosphate-dependent enzymes. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2003, 1647, 138-142.	1.1	3
63	Impact of the gliotoxin $\alpha$ -serine-O-sulphate on cellular metabolism in cultured rat astrocytes. <i>Neurochemistry International</i> , 2006, 48, 739-745.	1.9	2
64	pH stability of the stromelysin-1 catalytic domain and its mechanism of interaction with a glyoxal inhibitor. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2011, 1814, 1394-1403.	1.1	2
65	Mechanism of the binding of $\alpha$ -L-tryptophan and $\alpha$ -L-phenylalanine to thermolysin and stromelysin-1 in aqueous solutions. <i>Biochimica Et Biophysica Acta - Proteins and Proteomics</i> , 2012, 1824, 303-310.	1.1	2
66	$^{13}\text{C}$ nuclear magnetic resonance as a probe of ionizations within a chymotrypsin-inhibitor complex. <i>Biochemical Society Transactions</i> , 1989, 17, 387-388.	1.6	1
67	The use of $^{13}\text{C}$ n.m.r. and saturation transfer to detect tetrahedral intermediates in reactions catalysed by chymotrypsin and also in an amide inhibitor complex. <i>Biochemical Society Transactions</i> , 1994, 22, 30S-30S.	1.6	1
68	83 Effect of the bulk solvent on the pKa values of the oxyanions of serine protease derivatives. <i>Biochemical Society Transactions</i> , 1998, 26, S70-S70.	1.6	1
69	A $^{13}\text{C}$ -n.m.r. study of cyanylated $\beta$ -lactoglobulins. <i>Biochemical Society Transactions</i> , 1994, 22, 31S-31S.	1.6	0
70	Effect of magnetic field strength on the linewidth and spin-lattice relaxation time of the thiocyanate carbon of cyanylated $\beta$ -lactoglobulin B: optimization of the experimental parameters for observing thiocyanate carbons in proteins. <i>Biochemical Journal</i> , 1995, 306, 531-535.	1.7	0
71	Cyanylation of the thiol of the cysteine of flavodoxin from <i>Anabaena</i> PCC 7119. <i>Biochemical Society Transactions</i> , 1996, 24, 40S-40S.	1.6	0
72	$^1\text{H}$ -NMR spectroscopy of $\beta$ -thiocyanatoalanine. <i>Biochemical Society Transactions</i> , 1996, 24, 130S-130S.	1.6	0

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73	A 1H-NMR study of the histidine resonance's of native subtilisin and of subtilisin inhibited by benzyloxycarbonylglycylglycylphenylalanyl-chloromethane. Biochemical Society Transactions, 1996, 24, 135S-135S.	1.6	0
74	A study of the pH dependence of the reaction of benzyloxycarbonyltryptophanylchloromethane with chymotrypsin. Biochemical Society Transactions, 1996, 24, 131S-131S.	1.6	0
75	80 Synthesis of benzyloxycarbonylglycylglycine-phenylalanine p -nitroanilide and an evaluation of its potential as a substrate for $\alpha^1$ -chymotrypsin and subtilisin B PN'. Biochemical Society Transactions, 1998, 26, S67-S67.	1.6	0
76	81 An attempt to cyanilate the the thiol group of Bovine Serum Albumin with 13C-enriched cyanide and to observe the thiocyanate carbon by 13C-NMR. Biochemical Society Transactions, 1998, 26, S68-S68.	1.6	0
77	82 Quenching of $\beta$ -lactoglobulin fluorescence by 2-nitro-5-thiobenzoic acid. Biochemical Society Transactions, 1998, 26, S69-S69.	1.6	0
78	A new lysine derived glyoxal inhibitor of trypsin, its properties and utilization for studying the stabilization of tetrahedral adducts by trypsin. Biochemistry and Biophysics Reports, 2016, 5, 272-284.	0.7	0
79	Synthesis of 2-guanidinyl pyridines and their trypsin inhibition and docking. Bioorganic and Medicinal Chemistry, 2020, 28, 115612.	1.4	0