

# Paul J Thornalley

## List of Publications by Year in descending order

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295  
papers

27,702  
citations

4146

87  
h-index

6471

157  
g-index

305  
all docs

305  
docs citations

305  
times ranked

17082  
citing authors

#	ARTICLE	IF	CITATIONS
1	Formation of glyoxal, methylglyoxal and 3-deoxyglucosone in the glycation of proteins by glucose. <i>Biochemical Journal</i> , 1999, 344, 109-116.	3.7	1,031
2	Possible role for metallothionein in protection against radiation-induced oxidative stress. Kinetics and mechanism of its reaction with superoxide and hydroxyl radicals. <i>BBA - Proteins and Proteomics</i> , 1985, 827, 36-44.	2.1	936
3	Unraveling the Biological Roles of Reactive Oxygen Species. <i>Cell Metabolism</i> , 2011, 13, 361-366.	16.2	661
4	Tissue-specific glucose toxicity induces mitochondrial damage in a burn injury model of critical illness. <i>Critical Care Medicine</i> , 2009, 37, 1355-1364.	0.9	593
5	Quantitative screening of advanced glycation endproducts in cellular and extracellular proteins by tandem mass spectrometry. <i>Biochemical Journal</i> , 2003, 375, 581-592.	3.7	580
6	Use of aminoguanidine (Pimagedine) to prevent the formation of advanced glycation endproducts. <i>Archives of Biochemistry and Biophysics</i> , 2003, 419, 31-40.	3.0	553
7	Glyoxalase I " structure, function and a critical role in the enzymatic defence against glycation. <i>Biochemical Society Transactions</i> , 2003, 31, 1343-1348.	3.4	547
8	Pharmacology of methylglyoxal: formation, modification of proteins and nucleic acids, and enzymatic detoxification-A role in pathogenesis and antiproliferative chemotherapy. <i>General Pharmacology</i> , 1996, 27, 565-573.	0.7	533
9	Glyoxalase System in Clinical Diabetes Mellitus and Correlation with Diabetic Complications. <i>Clinical Science</i> , 1994, 87, 21-29.	4.3	512
10	The formation of methylglyoxal from triose phosphates. <i>FEBS Journal</i> , 1993, 212, 101-105.	0.2	477
11	The glyoxalase system in health and disease. <i>Molecular Aspects of Medicine</i> , 1993, 14, 287-371.	6.4	471
12	Overexpression of glyoxalase-I in bovine endothelial cells inhibits intracellular advanced glycation endproduct formation and prevents hyperglycemia-induced increases in macromolecular endocytosis.. <i>Journal of Clinical Investigation</i> , 1998, 101, 1142-1147.	8.2	441
13	Methylglyoxal modification of Nav1.8 facilitates nociceptive neuron firing and causes hyperalgesia in diabetic neuropathy. <i>Nature Medicine</i> , 2012, 18, 926-933.	30.7	414
14	PROTEIN AND NUCLEOTIDE DAMAGE BY GLYOXAL AND METHYLGLYOXAL IN PHYSIOLOGICAL SYSTEMS - ROLE IN AGEING AND DISEASE. <i>Drug Metabolism and Drug Interactions</i> , 2008, 23, 125-150.	0.3	375
15	Dicarbonyl Intermediates in the Maillard Reaction. <i>Annals of the New York Academy of Sciences</i> , 2005, 1043, 111-117.	3.8	357
16	Guidelines for measuring reactive oxygen species and oxidative damage in cells and in vivo. <i>Nature Metabolism</i> , 2022, 4, 651-662.	11.9	356
17	Prevention of Incipient Diabetic Nephropathy by High-Dose Thiamine and Benfotiamine. <i>Diabetes</i> , 2003, 52, 2110-2120.	0.6	348
18	Methylglyoxal, glyoxalase 1 and the dicarbonyl proteome. <i>Amino Acids</i> , 2012, 42, 1133-1142.	2.7	345

#	ARTICLE	IF	CITATIONS
19	Formation of glyoxal, methylglyoxal and 3-deoxyglucosone in the glycation of proteins by glucose. <i>Biochemical Journal</i> , 1999, 344, 109.	3.7	325
20	Advanced glycation endproducts: what is their relevance to diabetic complications?. <i>Diabetes, Obesity and Metabolism</i> , 2007, 9, 233-245.	4.4	316
21	Assay of advanced glycation endproducts (AGEs): surveying AGEs by chromatographic assay with derivatization by 6-aminoquinolyl-N-hydroxysuccinimidyl-carbamate and application to N <sup>ε</sup> -carboxymethyl-lysine- and N <sup>ε</sup> -(1-carboxyethyl)lysine-modified albumin. <i>Biochemical Journal</i> , 2002, 364, 1-14.	3.7	307
22	Glutathione-dependent detoxification of $\alpha$ -oxoaldehydes by the glyoxalase system: involvement in disease mechanisms and antiproliferative activity of glyoxalase I inhibitors. <i>Chemico-Biological Interactions</i> , 1998, 111-112, 137-151.	4.0	269
23	Peptide Mapping Identifies Hotspot Site of Modification in Human Serum Albumin by Methylglyoxal Involved in Ligand Binding and Esterase Activity. <i>Journal of Biological Chemistry</i> , 2005, 280, 5724-5732.	3.4	269
24	Dicarbonyl stress in cell and tissue dysfunction contributing to ageing and disease. <i>Biochemical and Biophysical Research Communications</i> , 2015, 458, 221-226.	2.1	269
25	Effect of storage, processing and cooking on glucosinolate content of Brassica vegetables. <i>Food and Chemical Toxicology</i> , 2007, 45, 216-224.	3.6	259
26	Glyoxalase $\alpha$ 1 prevents mitochondrial protein modification and enhances lifespan in <i>C. elegans</i> . <i>Aging Cell</i> , 2008, 7, 260-269.	6.7	251
27	Transcriptional control of glyoxalase 1 by Nrf2 provides a stress-responsive defence against dicarbonyl glycation. <i>Biochemical Journal</i> , 2012, 443, 213-222.	3.7	251
28	Methylglyoxal-Derived Hydroimidazolone Advanced Glycation End-Products of Human Lens Proteins. , 2003, 44, 5287.		250
29	<i>C. elegans</i> as Model for the Study of High Glucose Mediated Life Span Reduction. <i>Diabetes</i> , 2009, 58, 2450-2456.	0.6	248
30	Advanced glycation end products in the pathogenesis of chronic kidney disease. <i>Kidney International</i> , 2018, 93, 803-813.	5.2	239
31	Increased Dicarbonyl Metabolism in Endothelial Cells in Hyperglycemia Induces Anoikis and Impairs Angiogenesis by RGD and GFOGER Motif Modification. <i>Diabetes</i> , 2006, 55, 1961-1969.	0.6	234
32	Accumulation of $\alpha$ -oxoaldehydes during oxidative stress: a role in cytotoxicity. <i>Biochemical Pharmacology</i> , 1999, 58, 641-648.	4.4	225
33	High prevalence of low plasma thiamine concentration in diabetes linked to a marker of vascular disease. <i>Diabetologia</i> , 2007, 50, 2164-2170.	6.3	223
34	The assay of methylglyoxal in biological systems by derivatization with 1,2-diamino-4,5-dimethoxybenzene. <i>Analytical Biochemistry</i> , 1992, 206, 17-23.	2.4	220
35	Activation of NF-E2 Related Factor-2 Reverses Biochemical Dysfunction of Endothelial Cells Induced by Hyperglycemia Linked to Vascular Disease. <i>Diabetes</i> , 2008, 57, 2809-2817.	0.6	214
36	Stimulation of Suicidal Erythrocyte Death by Methylglyoxal. <i>Cellular Physiology and Biochemistry</i> , 2006, 18, 223-232.	1.6	212

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37	Degradation products of proteins damaged by glycation, oxidation and nitration in clinical type 1 diabetes. <i>Diabetologia</i> , 2005, 48, 1590-1603.	6.3	211
38	Glyoxalase in diabetes, obesity and related disorders. <i>Seminars in Cell and Developmental Biology</i> , 2011, 22, 309-317.	5.0	205
39	Molecular characteristics of methylglyoxal-modified bovine and human serum albumins. Comparison with glucose-derived advanced glycation endproduct-modified serum albumins. <i>The Protein Journal</i> , 1995, 14, 359-372.	1.1	200
40	Protein glycation, oxidation and nitration adduct residues and free adducts of cerebrospinal fluid in Alzheimer's disease and link to cognitive impairment. <i>Journal of Neurochemistry</i> , 2005, 92, 255-263.	3.9	199
41	Measurement of methylglyoxal by stable isotopic dilution analysis LC-MS/MS with corroborative prediction in physiological samples. <i>Nature Protocols</i> , 2014, 9, 1969-1979.	12.0	198
42	High Glucose Increases Angiotensin-2 Transcription in Microvascular Endothelial Cells through Methylglyoxal Modification of mSin3A. <i>Journal of Biological Chemistry</i> , 2007, 282, 31038-31045.	3.4	195
43	Kinetics and mechanism of the reaction of aminoguanidine with the $\alpha$ -oxoaldehydes glyoxal, methylglyoxal, and 3-deoxyglucosone under physiological conditions. <i>Biochemical Pharmacology</i> , 2000, 60, 55-65.	4.4	190
44	Glycation in diabetic neuropathy: Characteristics, consequences, causes, and therapeutic options. <i>International Review of Neurobiology</i> , 2002, 50, 37-57.	2.0	187
45	Transcription Factor Nrf2 Is Essential for Induction of NAD(P)H:Quinone Oxidoreductase 1, Glutathione S-Transferases, and Glutamate Cysteine Ligase by Broccoli Seeds and Isothiocyanates. <i>Journal of Nutrition</i> , 2004, 134, 3499S-3506S.	2.9	181
46	Involvement of a gut-retina axis in protection against dietary glycemia-induced age-related macular degeneration. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4472-E4481.	7.1	179
47	Effect of methylglyoxal on human leukaemia 60 cell growth: Modification of DNA, G1 growth arrest and induction of apoptosis. <i>Leukemia Research</i> , 1996, 20, 397-405.	0.8	175
48	Improved Glycemic Control and Vascular Function in Overweight and Obese Subjects by Glyoxalase 1 Inducer Formulation. <i>Diabetes</i> , 2016, 65, 2282-2294.	0.6	170
49	Increased serum levels of the specific AGE-compound methylglyoxal-derived hydroimidazolone in patients with type 2 diabetes. <i>Metabolism: Clinical and Experimental</i> , 2003, 52, 163-167.	3.4	160
50	Advanced Glycation End Products in Extracellular Matrix Proteins Contribute to the Failure of Sensory Nerve Regeneration in Diabetes. <i>Diabetes</i> , 2009, 58, 2893-2903.	0.6	155
51	Glyoxalase in ageing. <i>Seminars in Cell and Developmental Biology</i> , 2011, 22, 293-301.	5.0	154
52	Antitumour activity of S-p-bromobenzylglutathione cyclopentyl diester in vitro and in vivo. <i>Biochemical Pharmacology</i> , 1996, 51, 1365-1372.	4.4	151
53	Dicarbonyls linked to damage in the powerhouse: glycation of mitochondrial proteins and oxidative stress. <i>Biochemical Society Transactions</i> , 2008, 36, 1045-1050.	3.4	149
54	Studies on the mechanism of the inhibition of human leukaemia cell growth by dietary isothiocyanates and their cysteine adducts in vitro. <i>Biochemical Pharmacology</i> , 2000, 60, 221-231.	4.4	145

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55	High-dose thiamine therapy for patients with type 2 diabetes and microalbuminuria: a randomised, double-blind placebo-controlled pilot study. <i>Diabetologia</i> , 2009, 52, 208-212.	6.3	145
56	Chromatographic assay of glycation adducts in human serum albumin glycated in vitro by derivatization with 6-aminoquinolyl-N-hydroxysuccinimidyl-carbamate and intrinsic fluorescence. <i>Biochemical Journal</i> , 2002, 364, 15-24.	3.7	143
57	Quantitative screening of protein biomarkers of early glycation, advanced glycation, oxidation and nitrosation in cellular and extracellular proteins by tandem mass spectrometry multiple reaction monitoring. <i>Biochemical Society Transactions</i> , 2003, 31, 1417-1422.	3.4	142
58	Glyoxalase in tumourigenesis and multidrug resistance. <i>Seminars in Cell and Developmental Biology</i> , 2011, 22, 318-325.	5.0	142
59	The Potential Role of Thiamine (Vitamin B1) in Diabetic Complications. <i>Current Diabetes Reviews</i> , 2005, 1, 287-298.	1.3	141
60	Accumulation of fructosyl-lysine and advanced glycation end products in the kidney, retina and peripheral nerve of streptozotocin-induced diabetic rats. <i>Biochemical Society Transactions</i> , 2003, 31, 1423-1425.	3.4	140
61	Glycation of LDL by Methylglyoxal Increases Arterial Atherogenicity. <i>Diabetes</i> , 2011, 60, 1973-1980.	0.6	140
62	Methylglyoxal administration induces diabetes-like microvascular changes and perturbs the healing process of cutaneous wounds. <i>Clinical Science</i> , 2005, 109, 83-95.	4.3	139
63	Assay of advanced glycation endproducts in selected beverages and food by liquid chromatography with tandem mass spectrometric detection. <i>Molecular Nutrition and Food Research</i> , 2005, 49, 691-699.	3.3	137
64	Modification of the glyoxalase system in streptozotocin-induced diabetic rats. <i>Biochemical Pharmacology</i> , 1993, 46, 805-811.	4.4	134
65	Dicarbonyls and glyoxalase in disease mechanisms and clinical therapeutics. <i>Glycoconjugate Journal</i> , 2016, 33, 513-525.	2.7	130
66	Profound Mishandling of Protein Glycation Degradation Products in Uremia and Dialysis. <i>Journal of the American Society of Nephrology: JASN</i> , 2005, 16, 1471-1485.	6.1	128
67	Methylglyoxal-induced dicarbonyl stress in aging and disease: first steps towards glyoxalase 1-based treatments. <i>Clinical Science</i> , 2016, 130, 1677-1696.	4.3	124
68	Isothiocyanates: mechanism of cancer chemopreventive action. <i>Anti-Cancer Drugs</i> , 2002, 13, 331-338.	1.4	123
69	Increased formation of methylglyoxal and protein glycation, oxidation and nitrosation in triosephosphate isomerase deficiency. <i>Biochimica Et Biophysica Acta - Molecular Basis of Disease</i> , 2003, 1639, 121-132.	3.8	121
70	Analysis of glucosinolates, isothiocyanates, and amine degradation products in vegetable extracts and blood plasma by LC-MS/MS. <i>Analytical Biochemistry</i> , 2005, 347, 234-243.	2.4	121
71	Involvement of glutathione metabolism in the cytotoxicity of the phenethyl isothiocyanate and its cysteine conjugate to human leukaemia cells in vitro. Abbreviations: BSO, l-buthionine sulphoximine; DNP-SG, S-2,4-dinitrophenylglutathione; DTT, dithiothreitol; GST, glutathione S-transferase; HL60, human leukaemia 60; JNK1, c-Jun N-terminal kinase 1; ML-1, human myeloblastic leukaemia-1; PEITC, phenethyl isothiocyanate; PETC, N-phenethylthiocarbamoyl; PETC-Cys, S-(N-phenethylthiocarbamoyl)cysteine; PETC-SG, S. <i>Biochemical Pharmacology</i> , 2001, 61, 165-177.	4.4	120
72	Increased protein damage in renal glomeruli, retina, nerve, plasma and urine and its prevention by thiamine and benfotiamine therapy in a rat model of diabetes. <i>Diabetologia</i> , 2010, 53, 1506-1516.	6.3	120

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73	The Critical Role of Methylglyoxal and Glyoxalase 1 in Diabetic Nephropathy. <i>Diabetes</i> , 2014, 63, 50-52.	0.6	120
74	Protecting the genome: defence against nucleotide glycation and emerging role of glyoxalase I overexpression in multidrug resistance in cancer chemotherapy. <i>Biochemical Society Transactions</i> , 2003, 31, 1372-1377.	3.4	118
75	Glycated and Oxidized Protein Degradation Products Are Indicators of Fasting and Postprandial Hyperglycemia in Diabetes. <i>Diabetes Care</i> , 2005, 28, 2465-2471.	8.6	117
76	Detection of oxidized and glycated proteins in clinical samples using mass spectrometry – A user's perspective. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2014, 1840, 818-829.	2.4	117
77	The human red blood cell glyoxalase system in diabetes mellitus. <i>Diabetes Research and Clinical Practice</i> , 1989, 7, 115-120.	2.8	113
78	Glycation research in amino acids: a place to call home. <i>Amino Acids</i> , 2012, 42, 1087-1096.	2.7	113
79	Dicarbonyl proteome and genome damage in metabolic and vascular disease. <i>Biochemical Society Transactions</i> , 2014, 42, 425-432.	3.4	112
80	Increased Glycation and Oxidative Damage to Apolipoprotein B100 of LDL Cholesterol in Patients With Type 2 Diabetes and Effect of Metformin. <i>Diabetes</i> , 2010, 59, 1038-1045.	0.6	109
81	Mechanism of the degradation of non-enzymatically glycated proteins under physiological conditions. Studies with the model fructosamine, Nepsilon-(1-deoxy-d-fructos-1-yl)hippuryl-lysine. <i>FEBS Journal</i> , 1992, 210, 729-739.	0.2	108
82	The autoxidation of glyceraldehyde and other simple monosaccharides. <i>Experientia</i> , 1984, 40, 244-246.	1.2	102
83	Advances in glyoxalase research. Glyoxalase expression in malignancy, anti-proliferative effects of methylglyoxal, glyoxalase I inhibitor diesters and S-d-lactoylglutathione, and methylglyoxal-modified protein binding and endocytosis by the advanced glycation endproduct receptor. <i>Critical Reviews in Oncology/Hematology</i> , 1995, 20, 99-128.	4.4	99
84	Imidazopurinones are markers of physiological genomic damage linked to DNA instability and glyoxalase 1-associated tumour multidrug resistance. <i>Nucleic Acids Research</i> , 2010, 38, 5432-5442.	14.5	98
85	Suppression of the Accumulation of Triosephosphates and Increased Formation of Methylglyoxal in Human Red Blood Cells during Hyperglycaemia by Thiamine In Vitro. <i>Journal of Biochemistry</i> , 2001, 129, 543-549.	1.7	96
86	GLO1: A novel amplified gene in human cancer. <i>Genes Chromosomes and Cancer</i> , 2010, 49, 711-725.	2.8	95
87	Phenyl radical production during the oxidation of phenylhydrazine and in phenylhydrazine-induced haemolysis. <i>FEBS Letters</i> , 1981, 125, 235-238.	2.8	93
88	Glyoxalase activity in human red blood cells fractionated by age. <i>Mechanisms of Ageing and Development</i> , 1989, 48, 63-71.	4.6	91
89	The reaction of methylglyoxal with aminoguanidine under physiological conditions and prevention of methylglyoxal binding to plasma proteins. <i>Biochemical Pharmacology</i> , 1994, 48, 1865-1870.	4.4	90
90	Fluorimetric assay of d-lactate. <i>Analytical Biochemistry</i> , 1992, 206, 12-16.	2.4	89

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91	Measurement of glyoxalase activities. <i>Biochemical Society Transactions</i> , 2014, 42, 491-494.	3.4	88
92	Methylglyoxal Concentration and Glyoxalase Activities in the Human Lens. <i>Experimental Eye Research</i> , 1994, 59, 497-500.	2.6	86
93	High-dose thiamine therapy counters dyslipidaemia in streptozotocin-induced diabetic rats. <i>Diabetologia</i> , 2004, 47, 2235-2246.	6.3	85
94	Synthesis and chromatography of 1,2-diamino-4,5-dimethoxybenzene, 6,7-dimethoxy-2-methylquinoxaline and 6,7-dimethoxy-2,3-dimethylquinoxaline for use in a liquid chromatographic fluorimetric assay of methylglyoxal. <i>Analytica Chimica Acta</i> , 1992, 263, 137-142.	5.4	84
95	Activity, regulation, copy number and function in the glyoxalase system. <i>Biochemical Society Transactions</i> , 2014, 42, 419-424.	3.4	83
96	Diabetes is associated with posttranslational modifications in plasminogen resulting in reduced plasmin generation and enzyme-specific activity. <i>Blood</i> , 2013, 122, 134-142.	1.4	79
97	Signal transduction activated by the cancer chemopreventive isothiocyanates: cleavage of BID protein, tyrosine phosphorylation and activation of JNK. <i>British Journal of Cancer</i> , 2001, 84, 670-673.	6.4	78
98	<i>The Dicarbonyl Proteome</i>. <i>Annals of the New York Academy of Sciences</i> , 2008, 1126, 124-127.	3.8	75
99	Review on uraemic toxins III: recommendations for handling uraemic retention solutes in vitro towards a standardized approach for research on uraemia. <i>Nephrology Dialysis Transplantation</i> , 2007, 22, 3381-3390.	0.7	74
100	Accumulation of free adduct glycation, oxidation, and nitration products follows acute loss of renal function. <i>Kidney International</i> , 2007, 72, 1113-1121.	5.2	74
101	Alpha-synuclein deficiency leads to increased glyoxalase I expression and glycation stress. <i>Cellular and Molecular Life Sciences</i> , 2011, 68, 721-733.	5.4	73
102	Mass spectrometric determination of early and advanced glycation in biology. <i>Glycoconjugate Journal</i> , 2016, 33, 553-568.	2.7	72
103	Inhibition of proliferation of human leukaemia 60 cells by diethyl esters of glyoxalase inhibitors in vitro. <i>Biochemical Pharmacology</i> , 1992, 44, 2357-2363.	4.4	71
104	Teratogenicity of 3-deoxyglucosone and diabetic embryopathy. <i>Diabetes</i> , 1998, 47, 1960-1966.	0.6	71
105	Quantitative measurement of specific biomarkers for protein oxidation, nitration and glycation in <i>Arabidopsis</i> leaves. <i>Plant Journal</i> , 2009, 59, 661-671.	5.7	71
106	Activation of the unfolded protein response in high glucose treated endothelial cells is mediated by methylglyoxal. <i>Scientific Reports</i> , 2019, 9, 7889.	3.3	69
107	Assay of methylglyoxal-derived protein and nucleotide AGEs. <i>Biochemical Society Transactions</i> , 2014, 42, 511-517.	3.4	67
108	A mechanism for primaquine mediated oxidation of NADPH in red blood cells. <i>Biochemical Pharmacology</i> , 1983, 32, 3571-3575.	4.4	66



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109	Methylglyoxal, glyoxalases and the development of diabetic complications. <i>Amino Acids</i> , 1994, 6, 15-23.	2.7	66
110	Hyperglycemic kidney damage in an animal model of prolonged critical illness. <i>Kidney International</i> , 2009, 76, 512-520.	5.2	66
111	Free radical production from normal and adriamycin-treated rat cardiac sarcosomes. <i>Biochemical Pharmacology</i> , 1985, 34, 669-674.	4.4	64
112	Mass spectrometric monitoring of albumin in uremia. <i>Kidney International</i> , 2000, 58, 2228-2234.	5.2	64
113	Frequency Modulated Translocational Oscillations of Nrf2 Mediate the Antioxidant Response Element Cytoprotective Transcriptional Response. <i>Antioxidants and Redox Signaling</i> , 2015, 23, 613-629.	5.4	63
114	Peptide Mapping of Human Serum Albumin Modified Minimally by Methylglyoxalin Vitroandin Vivo. <i>Annals of the New York Academy of Sciences</i> , 2005, 1043, 260-266.	3.8	62
115	PROGRESS IN UREMIC TOXIN RESEARCH: Highlights and Hotspots of Protein Glycation in End-Stage Renal Disease. <i>Seminars in Dialysis</i> , 2009, 22, 400-404.	1.3	62
116	Glyoxalase 1 Modulation in Obesity and Diabetes. <i>Antioxidants and Redox Signaling</i> , 2019, 30, 354-374.	5.4	62
117	Inhibition of proliferation of human promyelocytic leukaemia HL60 cells by S-d-lactoylglutathione in vitro. <i>Leukemia Research</i> , 1988, 12, 897-904.	0.8	61
118	Dicarbonyl stress in clinical obesity. <i>Glycoconjugate Journal</i> , 2016, 33, 581-589.	2.7	60
119	Antimalarial activity in vitro of the glyoxalase I inhibitor diester, S-p-bromobenzylglutathione diethyl ester. <i>Biochemical Pharmacology</i> , 1994, 47, 418-420.	4.4	59
120	Processing of protein glycation, oxidation and nitrosation adducts in the liver and the effect of cirrhosis. <i>Journal of Hepatology</i> , 2004, 41, 913-919.	3.7	59
121	Rapid hydrolysis and slow $\alpha,\beta$ -dicarbonyl cleavage of an agent proposed to cleave glucose-derived protein cross-links. <i>Biochemical Pharmacology</i> , 1999, 57, 303-307.	4.4	58
122	Advanced glycation endproducts, dityrosine and arginine transporter dysfunction in autism - a source of biomarkers for clinical diagnosis. <i>Molecular Autism</i> , 2018, 9, 3.	4.9	58
123	Multiple roles of glyoxalase 1-mediated suppression of methylglyoxal glycation in cancer biology—Involvement in tumour suppression, tumour growth, multidrug resistance and target for chemotherapy. <i>Seminars in Cancer Biology</i> , 2018, 49, 83-93.	9.6	58
124	The production of free radicals during the autoxidation of monosaccharides by buffer ions. <i>Carbohydrate Research</i> , 1984, 134, 191-204.	2.3	57
125	Induction of synthesis and secretion of interleukin $1\beta$ in the human monocytic THP-1 cells by human serum albumins modified with methylglyoxal and advanced glycation endproducts. <i>Immunology Letters</i> , 1996, 50, 17-21.	2.5	57
126	Dietary AGEs and ALEs and risk to human health by their interaction with the receptor for advanced glycation endproducts (RAGE) — an introduction. <i>Molecular Nutrition and Food Research</i> , 2007, 51, 1107-1110.	3.3	57



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127	Arginine-directed glycation and decreased HDL plasma concentration and functionality. <i>Nutrition and Diabetes</i> , 2014, 4, e134-e134.	3.2	57
128	Advanced Glycation End Products in Renal Failure. , 2006, 16, 178-184.		55
129	Protein oxidation, nitration and glycation biomarkers for early-stage diagnosis of osteoarthritis of the knee and typing and progression of arthritic disease. <i>Arthritis Research and Therapy</i> , 2016, 18, 250.	3.5	54
130	Aging-Dependent Reduction in Glyoxalase 1 Delays Wound Healing. <i>Gerontology</i> , 2013, 59, 427-437.	2.8	53
131	Hexokinase-2 Glycolytic Overload in Diabetes and Ischemiaâ€“Reperfusion Injury. <i>Trends in Endocrinology and Metabolism</i> , 2019, 30, 419-431.	7.1	53
132	Emerging role of thiamine therapy for prevention and treatment of early-stage diabetic nephropathy. <i>Diabetes, Obesity and Metabolism</i> , 2011, 13, 577-583.	4.4	52
133	Synthesis and secretion of tumour necrosis factor- $\alpha$ by human monocytic THP-1 cells and chemotaxis induced by human serum albumin derivatives modified with methylglyoxal and glucose-derived advanced glycation endproducts. <i>Immunology Letters</i> , 1997, 58, 139-147.	2.5	51
134	The generation of hydroxyl radicals following superoxide production by neutrophil NADPH oxidase. <i>FEBS Letters</i> , 1982, 150, 300-302.	2.8	50
135	Modification of the glyoxalase system in disease processes and prospects for therapeutic strategies. <i>Biochemical Society Transactions</i> , 1993, 21, 531-534.	3.4	50
136	Effects of Methylglyoxal on Rat Pancreatic $\beta$ -Cells. <i>Biochemical Pharmacology</i> , 1998, 55, 1361-1367.	4.4	50
137	Glycation free adduct accumulation in renal disease: the new AGE. <i>Pediatric Nephrology</i> , 2005, 20, 1515-1522.	1.7	49
138	Formation of methylglyoxal and $\alpha$ -lactate in human red blood cells <i>in vitro</i> . <i>Biochemical Society Transactions</i> , 1993, 21, 163S-163S.	3.4	48
139	Highâ€“Dose Thiamine Therapy Counters Dyslipidemia and Advanced Glycation of Plasma Protein in Streptozotocinâ€“Induced Diabetic Rats. <i>Annals of the New York Academy of Sciences</i> , 2005, 1043, 777-783.	3.8	48
140	Endogenous $\alpha$ -Oxoaldehydes and Formation of Protein and Nucleotide Advanced Glycation Endproducts in Tissue Damage. <i>Novartis Foundation Symposium</i> , 2007, 285, 229-246.	1.1	48
141	N <sup>ε</sup> -(Carboxymethyl)lysine and 3-DG-Imidazolone Are Major AGE Structures in Protein Modification by 3-Deoxyglucosone. <i>Journal of Biochemistry</i> , 2004, 136, 351-358.	1.7	47
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