Marcus A Glomb

List of Publications by Year
in descending order

70 papers	3,177 citations	185998 28 h-index	155451 55 g-index
74 all docs	74 docs citations	74 times ranked	2943 citing authors

#	Article	IF	Citations
1	Mechanism of Protein Modification by Glyoxal and Glycolaldehyde, Reactive Intermediates of the Maillard Reaction. Journal of Biological Chemistry, 1995, 270, 10017-10026.	1.6	510
2	Protein Modification by Methylglyoxal: Chemical Nature and Synthetic Mechanism of a Major Fluorescent Adduct. Archives of Biochemistry and Biophysics, 1997, 344, 29-36.	1.4	253
3	Characterization of Phenolic Compounds in Rooibos Tea. Journal of Agricultural and Food Chemistry, 2008, 56, 3368-3376.	2.4	154
4	Degradation of Glucose: Reinvestigation of Reactive Î±-Dicarbonyl Compounds^{â€}. Journal of Agricultural and Food Chemistry, 2009, 57, 8591-8597.	2.4	137
5	Pathways of the Maillard reaction under physiological conditions. Glycoconjugate Journal, 2016, 33, 499-512.	1.4	129
6	Amides Are Novel Protein Modifications Formed by Physiological Sugars. Journal of Biological Chemistry, 2001, 276, 41638-41647.	1.6	126
7	Isolation and Characterization of Glyoxalâ^'Arginine Modifications. Journal of Agricultural and Food Chemistry, 2001, 49, 1493-1501.	2.4	100
8	Fragmentation Pathways during Maillard-Induced Carbohydrate Degradation. Journal of Agricultural and Food Chemistry, 2013, 61, 10198-10208.	2.4	94
9	Detection of Î±-Dicarbonyl Compounds in Maillard Reaction Systems and in Vivo. Journal of Agricultural and Food Chemistry, 2001, 49, 5543-5550.	2.4	87
10	Extending the Spectrum of Î±-Dicarbonyl Compounds in Vivo. Journal of Biological Chemistry, 2014, 289, 28676-28688.	1.6	83
11	Comprehensive Analysis of Maillard Protein Modifications in Human Lenses: Effect of Age and Cataract. Biochemistry, 2015, 54, 2500-2507.	1.2	70
12	Isolation of Phenolic Compounds from Iceberg Lettuce and Impact on Enzymatic Browning. Journal of Agricultural and Food Chemistry, 2013, 61, 2868-2874.	2.4	69
13	Identification and quantification of six major Î±-dicarbonyl process contaminants in high-fructose corn syrup. Analytical and Bioanalytical Chemistry, 2012, 403, 2923-2931.	1.9	68
14	Maillard Degradation Pathways of Vitaminâ€…C. Angewandte Chemie - International Edition, 2013, 52, 4887-4891.	7.2	67
15	Formation of Arginine Modifications in a Model System of N^{Î±}-tert-Butoxycarbonyl (Boc)-Arginine with Methylglyoxal. Journal of Agricultural and Food Chemistry, 2011, 59, 394-401.	2.4	62
16	AGEs in human lens capsule promote the TGFÎ²2â€mediated EMT of lens epithelial cells: implications for ageâ€associated fibrosis. Aging Cell, 2016, 15, 465-476.	3.0	61
17	Structureâ€"antioxidant relationship of flavonoids from fermented rooibos. Molecular Nutrition and Food Research, 2009, 53, 635-642.	1.5	57
18	Novel Insights into the Maillard Catalyzed Degradation of Maltose. Journal of Agricultural and Food Chemistry, 2011, 59, 13254-13264.	2.4	48

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19	Investigations on the Maillard Reaction of Dextrins during Aging of Pilsner Type Beer. Journal of Agricultural and Food Chemistry, 2014, 62, 9876-9884.	2.4	46
20	Molecular Basis of Maillard Amide-Advanced Glycation End Product (AGE) Formation in Vivo. Journal of Biological Chemistry, 2011, 286, 44350-44356.	1.6	43
21	Oxidation of the Dihydrochalcone Aspalathin Leads to Dimerization. Journal of Agricultural and Food Chemistry, 2009, 57, 6838-6843.	2.4	40
22	High concentrations of glucose induce synthesis of argpyrimidine in retinal endothelial cells. Current Eye Research, 2001, 23, 106-115.	0.7	39
23	Synthesis of 1-deoxy-d-erythro-hexo-2,3-diulose, a major hexose Maillard intermediate. Carbohydrate Research, 2000, 329, 515-523.	1.1	38
24	Degradation of 1-Deoxy-<scp>d</scp>-erythro-hexo-2,3-diulose in the Presence of Lysine Leads to Formation of Carboxylic Acid Amides. Journal of Agricultural and Food Chemistry, 2010, 58, 6458-6464.	2.4	38
25	Chemistry of Color Formation during Rooibos Fermentation. Journal of Agricultural and Food Chemistry, 2012, 60, 5221-5228.	2.4	34
26	Reactivity of 1-Deoxy-<scp>d</scp>-erythro-hexo-2,3-diulose: A Key Intermediate in the Maillard Chemistry of Hexoses. Journal of Agricultural and Food Chemistry, 2009, 57, 4765-4770.	2.4	33
27	Lycopene Inhibits the Isomerization of Î²-Carotene during Quenching of Singlet Oxygen and Free Radicals. Journal of Agricultural and Food Chemistry, 2015, 63, 3279-3287.	2.4	32
28	Comprehensive analysis of posttranslational protein modifications in aging of subcellular compartments. Scientific Reports, 2020, 10, 7596.	1.6	32
29	Formation of Early and Advanced Maillard Reaction Products Correlates to the Ripening of Cheese. Journal of Agricultural and Food Chemistry, 2012, 60, 600-607.	2.4	29
30	Glycation-mediated inter-protein cross-linking is promoted by chaperoneâ€“client complexes of Î±-crystallin: Implications for lens aging and presbyopia. Journal of Biological Chemistry, 2020, 295, 5701-5716.	1.6	28
31	Phenolic composition of rhubarb. European Food Research and Technology, 2008, 228, 187-196.	1.6	27
32	Oxygen-Dependent Fragmentation Reactions during the Degradation of 1-Deoxy-<scp>d</scp>-erythro-hexo-2,3-diulose. Journal of Agricultural and Food Chemistry, 2010, 58, 5685-5691.	2.4	27
33	A Novel Approach for the Quantitation of Carbohydrates in Mash, Wort, and Beer with RP-HPLC Using 1-Naphthylamine for Precolumn Derivatization. Journal of Agricultural and Food Chemistry, 2013, 61, 3828-3833.	2.4	27
34	Vitamin D3 supplementation: Response and predictors of vitamin D3 metabolites â€“ A randomized controlled trial. Clinical Nutrition, 2016, 35, 351-358.	2.3	27
35	Comprehensive Analyses of Carbohydrates, 1,2-Dicarbonyl Compounds, and Advanced Glycation End Products in Industrial Bread Making. Journal of Agricultural and Food Chemistry, 2021, 69, 3720-3731.	2.4	26
36	NÎ´-(5-Hydroxy-4,6-dimethylpyrimidine-2-yl)-l-ornithine, a Novel Methylglyoxalâ€Arginine Modification in Beer. Journal of Agricultural and Food Chemistry, 2001, 49, 366-372.	2.4	25

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37	Detection of Free Advanced Glycation End Products in Vivo during Hemodialysis. Journal of Agricultural and Food Chemistry, 2017, 65, 930-937.	2.4	25
38	Accumulation of advanced glycation end products in the rabbit blastocyst under maternal diabetes. Reproduction, 2014, 148, 169-178.	1.1	24
39	Novel Î±-Oxoamide Advanced-Glycation Endproducts within the N⁶-Carboxymethyl Lysine and N⁶-Carboxyethyl Lysine Reaction Cascades. Journal of Agricultural and Food Chemistry, 2018, 66, 1898-1906.	2.4	24
40	Analysis of Advanced Glycation Endproducts in Rat Tail Collagen and Correlation to Tendon Stiffening. Journal of Agricultural and Food Chemistry, 2018, 66, 3957-3965.	2.4	24
41	Model Studies on Chemical and Textural Modifications in Gelatin Films by Reaction with Glyoxal and Glycolaldehyde. Journal of Agricultural and Food Chemistry, 2010, 58, 3580-3585.	2.4	21
42	Pathways of Non-enzymatic Lysine Acylation. Frontiers in Cell and Developmental Biology, 2021, 9, 664553.	1.8	21
43	Analysis of Glyoxal- and Methylglyoxal-Derived Advanced Glycation End Products during Grilling of Porcine Meat. Journal of Agricultural and Food Chemistry, 2021, 69, 15374-15383.	2.4	20
44	Structural and Sensory Characterization of Novel Sesquiterpene Lactones from Iceberg Lettuce. Journal of Agricultural and Food Chemistry, 2016, 64, 295-301.	2.4	18
45	Efficient Analysis of 2-Acetyl-1-pyrroline in Foods Using a Novel Derivatization Strategy and LC-MS/MS. Journal of Agricultural and Food Chemistry, 2019, 67, 3046-3054.	2.4	17
46	Quantitation of Reactive Acyl-CoA Species Mediated Protein Acylation by HPLCâ€“MS/MS. Analytical Chemistry, 2019, 91, 12336-12343.	3.2	16
47	Glyoxal modification of gelatin leads to change in properties of solutions and resulting films. Soft Matter, 2012, 8, 2222.	1.2	15
48	Photoinduced Isomerization of Lycopene and Application to Tomato Cultivation. Journal of Agricultural and Food Chemistry, 2013, 61, 11133-11139.	2.4	14
49	Modification and Cross-Linking of Proteins by Glycolaldehyde and Glyoxal: A Model System. Journal of Agricultural and Food Chemistry, 2018, 66, 10835-10843.	2.4	13
50	Influence of Nucleophilic Amino Acids on Enzymatic Browning Systems. Journal of Agricultural and Food Chemistry, 2019, 67, 1719-1725.	2.4	13
51	Transient elevation of temperature promotes cross-linking of Î±-crystallin-client proteins through formation of advanced glycation endproducts: A potential role in presbyopia and cataracts. Biochemical and Biophysical Research Communications, 2020, 533, 1352-1358.	1.0	11
52	Mapping protein carboxymethylation sites provides insights into their role in proteostasis and cell proliferation. Nature Communications, 2021, 12, 6743.	5.8	11
53	Lettucenin Sesquiterpenes Contribute Significantly to the Browning of Lettuce. Journal of Agricultural and Food Chemistry, 2014, 62, 4747-4753.	2.4	10
54	Analysis and Chemistry of Novel Protein Oxidation Markers in Vivo. Journal of Agricultural and Food Chemistry, 2018, 66, 4692-4701.	2.4	10

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55	Oxidative Fragmentation of Aspalathin Leads to the Formation of Dihydrocaffeic Acid and the Related Lysine Amide Adduct. Journal of Agricultural and Food Chemistry, 2020, 68, 13111-13120.	2.4	10
56	Glycation Alters the Fatty Acid Binding Capacity of Human Serum Albumin. Journal of Agricultural and Food Chemistry, 2022, 70, 3033-3046.	2.4	10
57	Growing and Processing Conditions Lead to Changes in the Carotenoid Profile of Spinach. Journal of Agricultural and Food Chemistry, 2014, 62, 4960-4967.	2.4	8
58	Transketolase A from E. coli Significantly Suppresses Protein Glycation by Glycolaldehyde and Glyoxal in Vitro. Journal of Agricultural and Food Chemistry, 2017, 65, 8196-8202.	2.4	8
59	Characterization and Quantitation of Steryl Glycosides in Solanum melongena. Journal of Agricultural and Food Chemistry, 2018, 66, 11398-11406.	2.4	8
60	Increased Expression of Immature Mannose-Containing Glycoproteins and Sialic Acid in Aged Mouse Brains. International Journal of Molecular Sciences, 2019, 20, 6118.	1.8	8
61	Advanced glycation end products in human diabetic lens capsules. Experimental Eye Research, 2021, 210, 108704.	1.2	8
62	Novel Amidine Protein Cross-Links Formed by the Reaction of Glyoxal with Lysine. Journal of Agricultural and Food Chemistry, 2021, 69, 7960-7968.	2.4	7
63	Benzothiazines as Major Intermediates in Enzymatic Browning Reactions of Catechin and Cysteine. Journal of Agricultural and Food Chemistry, 2021, 69, 15345-15353.	2.4	7
64	Influence of Transketolase-Catalyzed Reactions on the Formation of Glycolaldehyde and Glyoxal Specific Posttranslational Modifications under Physiological Conditions. Journal of Agricultural and Food Chemistry, 2018, 66, 1498-1508.	2.4	5
65	Influence of Î²-Carotene and Lycopene on Oxidation of Ethyl Linoleate in One- and Disperse-Phased Model Systems. Journal of Agricultural and Food Chemistry, 2020, 68, 2747-2756.	2.4	4
66	AGE-Rich Bread Crust Extract Boosts Oxidative Stress Interception via Stimulation of the NRF2 Pathway. Nutrients, 2021, 13, 3874.	1.7	4
67	Glycation-mediated protein crosslinking and stiffening in mouse lenses are inhibited by carboxitin in vitro. Glycoconjugate Journal, 2021, 38, 347-359.	1.4	3
68	Titelbild: Maillard Degradation Pathways of Vitaminâ€…C (Angew. Chem. 18/2013). Angewandte Chemie, 2013, 125, 4795-4795.	1.6	2
69	Mechanistic Pathways of Non-Enzymatic Flavor Formation. , 2017, , 15-16.		2
70	Novel Pyridinium Cross-Link Structures Derived from Glycolaldehyde and Glyoxal. Journal of Agricultural and Food Chemistry, 2022, 70, 4434-4444.	2.4	2