

# Marcus A Glomb

## List of Publications by Year in descending order

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70  
papers

3,177  
citations

186265

28  
h-index

155660

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. <i>Journal of Biological Chemistry</i> , 1995, 270, 10017-10026.	3.4	510
2	Protein Modification by Methylglyoxal: Chemical Nature and Synthetic Mechanism of a Major Fluorescent Adduct. <i>Archives of Biochemistry and Biophysics</i> , 1997, 344, 29-36.	3.0	253
3	Characterization of Phenolic Compounds in Rooibos Tea. <i>Journal of Agricultural and Food Chemistry</i> , 2008, 56, 3368-3376.	5.2	154
4	Degradation of Glucose: Reinvestigation of Reactive $\alpha$ -Dicarbonyl Compounds. <i>Journal of Agricultural and Food Chemistry</i> , 2009, 57, 8591-8597.	5.2	137
5	Pathways of the Maillard reaction under physiological conditions. <i>Glycoconjugate Journal</i> , 2016, 33, 499-512.	2.7	129
6	Amides Are Novel Protein Modifications Formed by Physiological Sugars. <i>Journal of Biological Chemistry</i> , 2001, 276, 41638-41647.	3.4	126
7	Isolation and Characterization of Glyoxal $\alpha$ -Arginine Modifications. <i>Journal of Agricultural and Food Chemistry</i> , 2001, 49, 1493-1501.	5.2	100
8	Fragmentation Pathways during Maillard-Induced Carbohydrate Degradation. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 10198-10208.	5.2	94
9	Detection of $\alpha$ -Dicarbonyl Compounds in Maillard Reaction Systems and in Vivo. <i>Journal of Agricultural and Food Chemistry</i> , 2001, 49, 5543-5550.	5.2	87
10	Extending the Spectrum of $\alpha$ -Dicarbonyl Compounds in Vivo. <i>Journal of Biological Chemistry</i> , 2014, 289, 28676-28688.	3.4	83
11	Comprehensive Analysis of Maillard Protein Modifications in Human Lenses: Effect of Age and Cataract. <i>Biochemistry</i> , 2015, 54, 2500-2507.	2.5	70
12	Isolation of Phenolic Compounds from Iceberg Lettuce and Impact on Enzymatic Browning. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 2868-2874.	5.2	69
13	Identification and quantification of six major $\alpha$ -dicarbonyl process contaminants in high-fructose corn syrup. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 403, 2923-2931.	3.7	68
14	Maillard Degradation Pathways of Vitamin C. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 4887-4891.	13.8	67
15	Formation of Arginine Modifications in a Model System of <i>N</i> $\alpha$ - <i>tert</i> -Butoxycarbonyl (Boc)-Arginine with Methylglyoxal. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 394-401.	5.2	62
16	AGEs in human lens capsule promote the TGF $\beta$ -mediated EMT of lens epithelial cells: implications for age-associated fibrosis. <i>Aging Cell</i> , 2016, 15, 465-476.	6.7	61
17	Structure-antioxidant relationship of flavonoids from fermented rooibos. <i>Molecular Nutrition and Food Research</i> , 2009, 53, 635-642.	3.3	57
18	Novel Insights into the Maillard Catalyzed Degradation of Maltose. <i>Journal of Agricultural and Food Chemistry</i> , 2011, 59, 13254-13264.	5.2	48

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19	Investigations on the Maillard Reaction of Dextrins during Aging of Pilsner Type Beer. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 9876-9884.	5.2	46
20	Molecular Basis of Maillard Amide-Advanced Glycation End Product (AGE) Formation in Vivo. <i>Journal of Biological Chemistry</i> , 2011, 286, 44350-44356.	3.4	43
21	Oxidation of the Dihydrochalcone Aspalathin Leads to Dimerization. <i>Journal of Agricultural and Food Chemistry</i> , 2009, 57, 6838-6843.	5.2	40
22	High concentrations of glucose induce synthesis of argpyrimidine in retinal endothelial cells. <i>Current Eye Research</i> , 2001, 23, 106-115.	1.5	39
23	Synthesis of 1-deoxy-d-erythro-hexo-2,3-diulose, a major hexose Maillard intermediate. <i>Carbohydrate Research</i> , 2000, 329, 515-523.	2.3	38
24	Degradation of 1-Deoxy- <i>d</i> -erythro-hexo-2,3-diulose in the Presence of Lysine Leads to Formation of Carboxylic Acid Amides. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 6458-6464.	5.2	38
25	Chemistry of Color Formation during Rooibos Fermentation. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 5221-5228.	5.2	34
26	Reactivity of 1-Deoxy- <i>d</i> -erythro-hexo-2,3-diulose: A Key Intermediate in the Maillard Chemistry of Hexoses. <i>Journal of Agricultural and Food Chemistry</i> , 2009, 57, 4765-4770.	5.2	33
27	Lycopene Inhibits the Isomerization of $\beta$ -Carotene during Quenching of Singlet Oxygen and Free Radicals. <i>Journal of Agricultural and Food Chemistry</i> , 2015, 63, 3279-3287.	5.2	32
28	Comprehensive analysis of posttranslational protein modifications in aging of subcellular compartments. <i>Scientific Reports</i> , 2020, 10, 7596.	3.3	32
29	Formation of Early and Advanced Maillard Reaction Products Correlates to the Ripening of Cheese. <i>Journal of Agricultural and Food Chemistry</i> , 2012, 60, 600-607.	5.2	29
30	Glycation-mediated inter-protein cross-linking is promoted by chaperone-client complexes of $\beta$ -crystallin: Implications for lens aging and presbyopia. <i>Journal of Biological Chemistry</i> , 2020, 295, 5701-5716.	3.4	28
31	Phenolic composition of rhubarb. <i>European Food Research and Technology</i> , 2008, 228, 187-196.	3.3	27
32	Oxygen-Dependent Fragmentation Reactions during the Degradation of 1-Deoxy- <i>d</i> -erythro-hexo-2,3-diulose. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 5685-5691.	5.2	27
33	A Novel Approach for the Quantitation of Carbohydrates in Mash, Wort, and Beer with RP-HPLC Using 1-Naphthylamine for Precolumn Derivatization. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 3828-3833.	5.2	27
34	Vitamin D3 supplementation: Response and predictors of vitamin D3 metabolites – A randomized controlled trial. <i>Clinical Nutrition</i> , 2016, 35, 351-358.	5.0	27
35	Comprehensive Analyses of Carbohydrates, 1,2-Dicarbonyl Compounds, and Advanced Glycation End Products in Industrial Bread Making. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 3720-3731.	5.2	26
36	$\beta$ -(5-Hydroxy-4,6-dimethylpyrimidine-2-yl)-l-ornithine, a Novel Methylglyoxal-Arginine Modification in Beer. <i>Journal of Agricultural and Food Chemistry</i> , 2001, 49, 366-372.	5.2	25

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37	Detection of Free Advanced Glycation End Products in Vivo during Hemodialysis. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 930-937.	5.2	25
38	Accumulation of advanced glycation end products in the rabbit blastocyst under maternal diabetes. <i>Reproduction</i> , 2014, 148, 169-178.	2.6	24
39	Novel Î±-Oxoamide Advanced-Glycation Endproducts within the N <sup>6</sup> -Carboxymethyl Lysine and N <sup>6</sup> -Carboxyethyl Lysine Reaction Cascades. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 1898-1906.	5.2	24
40	Analysis of Advanced Glycation Endproducts in Rat Tail Collagen and Correlation to Tendon Stiffening. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 3957-3965.	5.2	24
41	Model Studies on Chemical and Textural Modifications in Gelatin Films by Reaction with Glyoxal and Glycolaldehyde. <i>Journal of Agricultural and Food Chemistry</i> , 2010, 58, 3580-3585.	5.2	21
42	Pathways of Non-enzymatic Lysine Acylation. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 664553.	3.7	21
43	Analysis of Glyoxal- and Methylglyoxal-Derived Advanced Glycation End Products during Grilling of Porcine Meat. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 15374-15383.	5.2	20
44	Structural and Sensory Characterization of Novel Sesquiterpene Lactones from Iceberg Lettuce. <i>Journal of Agricultural and Food Chemistry</i> , 2016, 64, 295-301.	5.2	18
45	Efficient Analysis of 2-Acetyl-1-pyrroline in Foods Using a Novel Derivatization Strategy and LC-MS/MS. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 3046-3054.	5.2	17
46	Quantitation of Reactive Acyl-CoA Species Mediated Protein Acylation by HPLC-MS/MS. <i>Analytical Chemistry</i> , 2019, 91, 12336-12343.	6.5	16
47	Glyoxal modification of gelatin leads to change in properties of solutions and resulting films. <i>Soft Matter</i> , 2012, 8, 2222.	2.7	15
48	Photoinduced Isomerization of Lycopene and Application to Tomato Cultivation. <i>Journal of Agricultural and Food Chemistry</i> , 2013, 61, 11133-11139.	5.2	14
49	Modification and Cross-Linking of Proteins by Glycolaldehyde and Glyoxal: A Model System. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 10835-10843.	5.2	13
50	Influence of Nucleophilic Amino Acids on Enzymatic Browning Systems. <i>Journal of Agricultural and Food Chemistry</i> , 2019, 67, 1719-1725.	5.2	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. <i>Biochemical and Biophysical Research Communications</i> , 2020, 533, 1352-1358.	2.1	11
52	Mapping protein carboxymethylation sites provides insights into their role in proteostasis and cell proliferation. <i>Nature Communications</i> , 2021, 12, 6743.	12.8	11
53	Lettucenin Sesquiterpenes Contribute Significantly to the Browning of Lettuce. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 4747-4753.	5.2	10
54	Analysis and Chemistry of Novel Protein Oxidation Markers in Vivo. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 4692-4701.	5.2	10

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55	Oxidative Fragmentation of Aspalathin Leads to the Formation of Dihydrocaffeic Acid and the Related Lysine Amide Adduct. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 13111-13120.	5.2	10
56	Glycation Alters the Fatty Acid Binding Capacity of Human Serum Albumin. <i>Journal of Agricultural and Food Chemistry</i> , 2022, 70, 3033-3046.	5.2	10
57	Growing and Processing Conditions Lead to Changes in the Carotenoid Profile of Spinach. <i>Journal of Agricultural and Food Chemistry</i> , 2014, 62, 4960-4967.	5.2	8
58	Transketolase A from <i>E. coli</i> Significantly Suppresses Protein Glycation by Glycolaldehyde and Glyoxal in Vitro. <i>Journal of Agricultural and Food Chemistry</i> , 2017, 65, 8196-8202.	5.2	8
59	Characterization and Quantitation of Steryl Glycosides in <i>Solanum melongena</i> . <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 11398-11406.	5.2	8
60	Increased Expression of Immature Mannose-Containing Glycoproteins and Sialic Acid in Aged Mouse Brains. <i>International Journal of Molecular Sciences</i> , 2019, 20, 6118.	4.1	8
61	Advanced glycation end products in human diabetic lens capsules. <i>Experimental Eye Research</i> , 2021, 210, 108704.	2.6	8
62	Novel Amidine Protein Cross-Links Formed by the Reaction of Glyoxal with Lysine. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 7960-7968.	5.2	7
63	Benzothiazines as Major Intermediates in Enzymatic Browning Reactions of Catechin and Cysteine. <i>Journal of Agricultural and Food Chemistry</i> , 2021, 69, 15345-15353.	5.2	7
64	Influence of Transketolase-Catalyzed Reactions on the Formation of Glycolaldehyde and Glyoxal Specific Posttranslational Modifications under Physiological Conditions. <i>Journal of Agricultural and Food Chemistry</i> , 2018, 66, 1498-1508.	5.2	5
65	Influence of $\beta$ -Carotene and Lycopene on Oxidation of Ethyl Linoleate in One- and Disperse-Phased Model Systems. <i>Journal of Agricultural and Food Chemistry</i> , 2020, 68, 2747-2756.	5.2	4
66	AGE-Rich Bread Crust Extract Boosts Oxidative Stress Interception via Stimulation of the NRF2 Pathway. <i>Nutrients</i> , 2021, 13, 3874.	4.1	4
67	Glycation-mediated protein crosslinking and stiffening in mouse lenses are inhibited by carboxitin in vitro. <i>Glycoconjugate Journal</i> , 2021, 38, 347-359.	2.7	3
68	Titelbild: Maillard Degradation Pathways of Vitamin C (Angew. Chem. 18/2013). <i>Angewandte Chemie</i> , 2013, 125, 4795-4795.	2.0	2
69	Mechanistic Pathways of Non-Enzymatic Flavor Formation. , 2017, , 15-16.		2
70	Novel Pyridinium Cross-Link Structures Derived from Glycolaldehyde and Glyoxal. <i>Journal of Agricultural and Food Chemistry</i> , 2022, 70, 4434-4444.	5.2	2