

# Beatriz Alvarez

## List of Publications by Year in descending order

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46  
papers

4,827  
citations

159358

30  
h-index

253896

43  
g-index

46  
all docs

46  
docs citations

46  
times ranked

5105  
citing authors

#	ARTICLE	IF	CITATIONS
1	Basic concepts of thiol chemistry and biology. , 2022, , 1-18.		1
2	Hydrogen sulfide and persulfides. , 2022, , 451-486.		1
3	Sulfenic acid in human serum albumin: Reaction with thiols, oxidation and spontaneous decay. Free Radical Biology and Medicine, 2021, 165, 254-264.	1.3	8
4	Heme-Thiolate Perturbation in Cystathionine Î²-Synthase by Mercury Compounds. ACS Omega, 2021, 6, 2192-2205.	1.6	4
5	Expression, purification and initial characterization of human serum albumin domain I and its cysteine 34. PLoS ONE, 2020, 15, e0240580.	1.1	7
6	Acidity and nucleophilic reactivity of glutathione persulfide. Journal of Biological Chemistry, 2020, 295, 15466-15481.	1.6	68
7	Persulfides, at the crossroads between hydrogen sulfide and thiols. Essays in Biochemistry, 2020, 64, 155-168.	2.1	21
8	Detection and quantification of nitric oxideâ€‘derived oxidants in biological systems. Journal of Biological Chemistry, 2019, 294, 14776-14802.	1.6	110
9	Kinetics of formation and reactivity of the persulfide in the one-cysteine peroxiredoxin from Mycobacterium tuberculosis. Journal of Biological Chemistry, 2019, 294, 13593-13605.	1.6	34
10	Quantification of carbonate radical formation by the bicarbonate-dependent peroxidase activity of superoxide dismutase 1 using pyrogallol red bleaching. Redox Biology, 2019, 24, 101207.	3.9	3
11	Hydrogen Sulfide and Persulfides Oxidation by Biologically Relevant Oxidizing Species. Antioxidants, 2019, 8, 48.	2.2	73
12	Biochemistry of Peroxynitrite and Protein Tyrosine Nitration. Chemical Reviews, 2018, 118, 1338-1408.	23.0	404
13	The chemical foundations of nitroalkene fatty acid signaling through addition reactions with thiols. Nitric Oxide - Biology and Chemistry, 2018, 78, 161-169.	1.2	14
14	Chemical Biology of H<sub>2</sub>S Signaling through Persulfidation. Chemical Reviews, 2018, 118, 1253-1337.	23.0	690
15	The Chemical Basis of Thiol Addition to Nitro-conjugated Linoleic Acid, a Protective Cell-signaling Lipid. Journal of Biological Chemistry, 2017, 292, 1145-1159.	1.6	48
16	The thiol of human serum albumin: Acidity, microenvironment and mechanistic insights on its oxidation to sulfenic acid. Free Radical Biology and Medicine, 2017, 108, 952-962.	1.3	43
17	Biological chemistry of hydrogen sulfide and persulfides. Archives of Biochemistry and Biophysics, 2017, 617, 9-25.	1.4	153
18	Kinetics of Nitrite Reduction and Peroxynitrite Formation by Ferrous Heme in Human Cystathionine Î²-Synthase. Journal of Biological Chemistry, 2016, 291, 8004-8013.	1.6	22

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19	One- and two-electron oxidation of thiols: mechanisms, kinetics and biological fates. <i>Free Radical Research</i> , 2016, 50, 150-171.	1.5	109
20	Insights into the mechanism of the reaction between hydrogen sulfide and peroxynitrite. <i>Free Radical Biology and Medicine</i> , 2015, 80, 93-100.	1.3	41
21	Reaction of Hydrogen Sulfide with Disulfide and Sulfenic Acid to Form the Strongly Nucleophilic Persulfide. <i>Journal of Biological Chemistry</i> , 2015, 290, 26866-26880.	1.6	255
22	HPLC separation of human serum albumin isoforms based on their isoelectric points. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2014, 944, 144-151.	1.2	20
23	Deconstructing the Catalytic Efficiency of Peroxiredoxin-5 Peroxidatic Cysteine. <i>Biochemistry</i> , 2014, 53, 6113-6125.	1.2	63
24	The thiol pool in human plasma: The central contribution of albumin to redox processes. <i>Free Radical Biology and Medicine</i> , 2013, 65, 244-253.	1.3	529
25	Kinetics of Reversible Reductive Carbonylation of Heme in Human Cystathionine $\beta$ -Synthase. <i>Biochemistry</i> , 2013, 52, 4553-4562.	1.2	32
26	The redox properties of the unique heme in cystathionine $\beta$ -synthase. <i>Bioinorganic Reaction Mechanisms</i> , 2013, 9, .	0.5	1
27	Modulation of the reactivity of the thiol of human serum albumin and its sulfenic derivative by fatty acids. <i>Archives of Biochemistry and Biophysics</i> , 2012, 521, 102-110.	1.4	48
28	Solubility and Permeation of Hydrogen Sulfide in Lipid Membranes. <i>PLoS ONE</i> , 2012, 7, e34562.	1.1	127
29	Kinetic studies of peroxiredoxin 6 from <i>Arenicola marina</i> : Rapid oxidation by hydrogen peroxide and peroxynitrite but lack of reduction by hydrogen sulfide. <i>Archives of Biochemistry and Biophysics</i> , 2011, 514, 1-7.	1.4	19
30	Reversible Heme-Dependent Regulation of Human Cystathionine $\beta$ -Synthase by a Flavoprotein Oxidoreductase. <i>Biochemistry</i> , 2011, 50, 8261-8263.	1.2	53
31	Reactivity of hydrogen sulfide with peroxynitrite and other oxidants of biological interest. <i>Free Radical Biology and Medicine</i> , 2011, 50, 196-205.	1.3	199
32	Mechanisms and Biological Consequences of Peroxynitrite-Dependent Protein Oxidation and Nitration. , 2010, , 61-102.		12
33	Formation and Reactions of Sulfenic Acid in Human Serum Albumin. <i>Methods in Enzymology</i> , 2010, 473, 117-136.	0.4	47
34	Sulfenic acid—A key intermediate in albumin thiol oxidation. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2009, 877, 3384-3392.	1.2	55
35	Inactivation of cystathionine $\beta$ -synthase with peroxynitrite. <i>Archives of Biochemistry and Biophysics</i> , 2009, 491, 96-105.	1.4	27
36	Thiol and Sulfenic Acid Oxidation of AhpE, the One-Cysteine Peroxiredoxin from <i>Mycobacterium tuberculosis</i> : Kinetics, Acidity Constants, and Conformational Dynamics. <i>Biochemistry</i> , 2009, 48, 9416-9426.	1.2	104

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37	Reactivity of Sulfenic Acid in Human Serum Albumin. <i>Biochemistry</i> , 2008, 47, 358-367.	1.2	144
38	Dioxygen Reactivity and Heme Redox Potential of Truncated Human Cystathionine $\beta$ -Synthase. <i>Biochemistry</i> , 2008, 47, 3194-3201.	1.2	35
39	Inactivation of human Cu,Zn superoxide dismutase by peroxynitrite and formation of histidinyl radical. <i>Free Radical Biology and Medicine</i> , 2004, 37, 813-822.	1.3	124
40	Sulfenic Acid Formation in Human Serum Albumin by Hydrogen Peroxide and Peroxynitrite. <i>Biochemistry</i> , 2003, 42, 9906-9914.	1.2	289
41	Reactions of manganese porphyrins and manganese-superoxide dismutase with peroxynitrite. <i>Methods in Enzymology</i> , 2002, 349, 23-37.	0.4	69
42	Peroxynitrite decay in the presence of hydrogen peroxide, mannitol and ethanol: A reappraisal. <i>Free Radical Research</i> , 2001, 34, 467-475.	1.5	15
43	Nitration and Inactivation of Tyrosine Hydroxylase by Peroxynitrite. <i>Journal of Biological Chemistry</i> , 2001, 276, 46017-46023.	1.6	156
44	Kinetics of Peroxynitrite Reaction with Amino Acids and Human Serum Albumin. <i>Journal of Biological Chemistry</i> , 1999, 274, 842-848.	1.6	236
45	Pathways of peroxynitrite oxidation of thiol groups. <i>Biochemical Journal</i> , 1997, 322, 167-173.	1.7	245
46	Reaction between Peroxynitrite and Hydrogen Peroxide: Formation of Oxygen and Slowing of Peroxynitrite Decomposition. <i>Chemical Research in Toxicology</i> , 1995, 8, 859-864.	1.7	69