Bartolome Vilanova CAnet

List of Publications by Year
in descending order

58 papers	810 citations	471509 17 h-index	610901 24 g-index
59 all docs	59 docs citations	59 times ranked	861 citing authors

#	Article	IF	Citations
1	Mechanistic Insights in Glycation-Induced Protein Aggregation. Biomacromolecules, 2014, 15, 3449-3462.	5.4	51
2	The pyridoxamine action on Amadori compounds: A reexamination of its scavenging capacity and chelating effect. Bioorganic and Medicinal Chemistry, 2008, 16, 5557-5569.	3.0	46
3	A Coarse-Grained Molecular Dynamics Approach to the Study of the Intrinsically Disordered Protein Î±-Synuclein. Journal of Chemical Information and Modeling, 2019, 59, 1458-1471.	5.4	44
4	pH Dependence of and kinetic solvent isotope effects on the methanolysis and hydrolysis of .beta.-lactams catalyzed by class C .beta.-lactamase. Journal of the American Chemical Society, 1995, 117, 12092-12095.	13.7	34
5	Study of the Alkaline Hydrolysis of the Azetidin-2-one Ring byab initioMethods: Influence of the solvent. Helvetica Chimica Acta, 1997, 80, 739-747.	1.6	27
6	Inhibition of Glycosylation Processes: the Reaction between Pyridoxamine and Glucose. Chemistry and Biodiversity, 2005, 2, 964-975.	2.1	26
7	Theoretical calculations of ?-lactam antibiotics. Theoretica Chimica Acta, 1993, 86, 229-239.	0.8	25
8	Pyridoxamine, a scavenger agent of carbohydrates. International Journal of Chemical Kinetics, 2007, 39, 154-167.	1.6	25
9	How Does Pyridoxamine Inhibit the Formation of Advanced Glycation End Products? The Role of Its Primary Antioxidant Activity. Antioxidants, 2019, 8, 344.	5.1	25
10	Unexpected isomeric equilibrium in pyridoxamine Schiff bases. Bioorganic Chemistry, 2009, 37, 26-32.	4.1	23
11	Chemical Reactivity of Penicillins and Cephalosporins. Intramolecular Involvement of the Acyl-Amido Side Chain. Journal of Organic Chemistry, 1998, 63, 9052-9060.	3.2	21
12	Theoretical Study of the Alkaline Hydrolysis of a Bicyclic Aza-Î²-lactam. Journal of Physical Chemistry B, 2000, 104, 11389-11394.	2.6	21
13	A comparative study of the chemical reactivity of pyridoxamine, Ac-Phe-Lys and Ac-Cys with various glycating carbonyl compounds. Amino Acids, 2009, 36, 437-448.	2.7	21
14	Understanding non-enzymatic aminophospholipid glycation and its inhibition. Polar head features affect the kinetics of Schiff base formation. Bioorganic and Medicinal Chemistry, 2011, 19, 4536-4543.	3.0	21
15	Theoretical Study of the Alkaline Hydrolysis of an Oxo-Î²-Lactam Structure. Journal of Physical Chemistry A, 1999, 103, 8879-8884.	2.5	20
16	Formation of Schiff Bases of <i>O</i>-Phosphorylethanolamine and <i>O</i>-Phospho-<scp>d</scp>,<scp>l</scp>-serine with Pyridoxal 5â€²-Phosphate. Experimental and Theoretical Studies. Journal of Physical Chemistry A, 2012, 116, 1897-1905.	2.5	19
17	Photo-Induced Processes in Vitamin B6 Compounds. Chemistry and Biodiversity, 2004, 1, 1073-1090.	2.1	18
18	Ortho-methylated 3-hydroxypyridines hinder hen egg-white lysozyme fibrillogenesis. Scientific Reports, 2015, 5, 12052.	3.3	18

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19	Thiol-catalysed hydrolysis of benzylpenicillin. Perkin Transactions II RSC, 2000, , 1521-1525.	1.1	17
20	Thiol-catalysed hydrolysis of cephalosporins and possible rate-limiting amine anion expulsion. Journal of Physical Organic Chemistry, 2004, 17, 521-528.	1.9	17
21	Glycation of Lysozyme by Glycolaldehyde Provides New Mechanistic Insights in Diabetes-Related Protein Aggregation. ACS Chemical Biology, 2017, 12, 1152-1162.	3.4	16
22	Nitration and Glycation Diminish the Î±-Synuclein Role in the Formation and Scavenging of Cu²⁺-Catalyzed Reactive Oxygen Species. ACS Chemical Neuroscience, 2019, 10, 2919-2930.	3.5	15
23	Copper(II) Binding Sites in N-Terminally Acetylated Î±-Synuclein: A Theoretical Rationalization. Journal of Physical Chemistry A, 2017, 121, 5711-5719.	2.5	14
24	Alkaline Hydrolysis of Cefotaxime. A HPLC and 1HnmR Study. Journal of Pharmaceutical Sciences, 1994, 83, 322-327.	3.3	13
25	<i>Kinetic Study of the Reaction of Glycolaldehyde with Two Glycation Target Models</i>. Annals of the New York Academy of Sciences, 2008, 1126, 235-240.	3.8	13
26	Unravelling the effect of<i>N</i>(Îµ)-(carboxyethyl)lysine on the conformation, dynamics and aggregation propensity of Î±-synuclein. Chemical Science, 2020, 11, 3332-3344.	7.4	13
27	Alkaline hydrolysis of N-methylazetidin-2-one. Hydration effects. Computational and Theoretical Chemistry, 1998, 426, 313-321.	1.5	12
28	Phenol Group in Pyridoxamine Acts as a Stabilizing Element for Its Carbinolamines and <i>Schiff</i> Bases. Chemistry and Biodiversity, 2011, 8, 1318-1332.	2.1	12
29	HPLC and1H-NMR Studies of Alkaline Hydrolysis of Some 7-(Oxyiminoacyl)cephalosporins. Helvetica Chimica Acta, 1993, 76, 2789-2802.	1.6	11
30	Kinetic and Molecular-Modelling Studies of Reactions of a Class-AÎ²-Lactamase with Compounds Bearing a Methoxy Group on theÎ²-Lactam Ring. Helvetica Chimica Acta, 1999, 82, 1274-1288.	1.6	10
31	Ab initio study of the alkaline hydrolysis of a thio-Î²-lactam structure. Chemical Physics Letters, 2000, 326, 304-310.	2.6	10
32	The Degradation Mechanism of an Oral Cephalosporin: Cefaclor. Helvetica Chimica Acta, 1996, 79, 1793-1802.	1.6	9
33	Î²-Lactamase-catalysed hydrolysis of cephalexin: evolution of the cephalosporoate intermediate. Journal of the Chemical Society Perkin Transactions II, 1997, , 2439-2444.	0.9	9
34	Molecular modelling studies on Henryâ€“Michaelis complexes of a class-C Î²-lactamase and Î²-lactam compounds. Computational and Theoretical Chemistry, 2002, 578, 19-28.	1.5	9
35	Trapping a salt-dependent unfolding intermediate of the marginally stable protein Yfh1. Frontiers in Molecular Biosciences, 2014, 1, 13.	3.5	9
36	A Systematic DFT Study of Some Plausible Zn(II) and Al(III) Interaction Sites in N-Terminally Acetylated Î±-Synuclein. Journal of Physical Chemistry A, 2018, 122, 690-699.	2.5	9

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37	Glycation of Î±-synuclein hampers its binding to synaptic-like vesicles and its driving effect on their fusion. Cellular and Molecular Life Sciences, 2022, 79, .	5.4	9
38	The role of a Î²-proton transfer donor in the degradation of benzylpenicillin. Journal of Molecular Catalysis A, 2001, 175, 3-16.	4.8	8
39	Formation mechanism of glyoxal-DNA adduct, a DNA cross-link precursor. International Journal of Biological Macromolecules, 2017, 98, 664-675.	7.5	8
40	Unraveling the NaCl Concentration Effect on the First Stages of Î±-Synuclein Aggregation. Biomacromolecules, 2020, 21, 5200-5212.	5.4	8
41	Cu2+, Ca2+, and methionine oxidation expose the hydrophobic Î±-synuclein NAC domain. International Journal of Biological Macromolecules, 2021, 169, 251-263.	7.5	8
42	FT-IR study of pyridoxamine 5â€² phosphate. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2003, 1647, 83-87.	2.3	7
43	Theoretical study of thiolysis in penicillins and cephalosporines. International Journal of Chemical Kinetics, 2005, 37, 434-443.	1.6	6
44	Conformational ensembles of neuromedin C reveal a progressive coil-helix transition within a binding-induced folding mechanism. RSC Advances, 2015, 5, 83074-83088.	3.6	6
45	Degradation of Cephaloridine on Alkaline Hydrolysis. Helvetica Chimica Acta, 1993, 76, 1619-1625.	1.6	5
46	Towards a detailed description of pyridoxamine tautomeric species. New Journal of Chemistry, 2012, 36, 1751.	2.8	5
47	Does glycation really distort the peptide Î±-helicity?. International Journal of Biological Macromolecules, 2019, 129, 254-266.	7.5	5
48	A density functional theory study of the freeâ€radical scavenging activity of aminoguanidine. Comparison with its reactive carbonyl compound and metal scavenging activities. International Journal of Quantum Chemistry, 2019, 119, e25911.	2.0	5
49	Frataxins Emerge as New Players of the Intracellular Antioxidant Machinery. Antioxidants, 2021, 10, 315.	5.1	5
50	Electrostatic and structural similarity of classical and non-classical lactam compounds. Journal of Computer-Aided Molecular Design, 2001, 15, 819-833.	2.9	4
51	Theoretical and experimental study of the vertical excitation energies in the ionic and tautomeric forms of 4-aminomethylpyridine. Journal of Photochemistry and Photobiology A: Chemistry, 2010, 209, 19-26.	3.9	4
52	Alkaline hydrolysis of cephaloridine: An1Hï£¿NMR study. Temperature dependence of the rate constants. International Journal of Chemical Kinetics, 1993, 25, 865-874.	1.6	3
53	Kinetic and Molecular-Modelling Study of the Interaction betweenStaphylococcus aureus PC1 Enzyme and Imipenem. Helvetica Chimica Acta, 2001, 84, 3366-3379.	1.6	3
54	New insights into human farnesyl pyrophosphate synthase inhibition by second-generation bisphosphonate drugs. Journal of Computer-Aided Molecular Design, 2017, 31, 675-688.	2.9	3

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55	Impact of the ionic forms on the UVâ€“Vis spectra 2â€hydroxybenzylamine. A TDâ€DFT study. International Journal of Quantum Chemistry, 2010, 110, 2179-2191.	2.0	2
56	Understanding metal binding in neuromedin C. Inorganica Chimica Acta, 2020, 499, 119197.	2.4	2
57	Penicillin 3-aldehyde is a good substrate and not an inhibitor of Î²-lactamases A and C. Journal of the Chemical Society Perkin Transactions II, 1995, , 869-870.	0.9	1
58	The hydrophobic substituent in aminophospholipids affects the formation kinetics of their Schiff bases. Bioorganic and Medicinal Chemistry Letters, 2013, 23, 2202-2206.	2.2	0