

# Edelmira Valero

## List of Publications by Citations

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87  
papers

1,260  
citations

21  
h-index

30  
g-index

90  
ext. papers

1,372  
ext. citations

4  
avg, IF

4.34  
L-index

#	Paper	IF	Citations
87	Time-dependent inhibition of grape polyphenol oxidase by tropolone. <i>Journal of Agricultural and Food Chemistry</i> , <b>1991</b> , 39, 1043-1046	5.7	70
86	Characterization of Polyphenol Oxidase from Airen Grapes. <i>Journal of Food Science</i> , <b>1988</b> , 53, 1482-1485	3.4	68
85	On the dynamics of the adenylate energy system: homeorhesis vs homeostasis. <i>PLoS ONE</i> , <b>2014</b> , 9, e108676	6.76	48
84	Highly activated screen-printed carbon electrodes by electrochemical treatment with hydrogen peroxide. <i>Electrochemistry Communications</i> , <b>2018</b> , 91, 36-40	5.1	43
83	Hysteresis and cooperative behavior of a latent plant polyphenoloxidase. <i>Plant Physiology</i> , <b>1992</b> , 98, 774-6	6.6	38
82	Kinetic study of the effect of metabisulfite on polyphenol oxidase. <i>Journal of Agricultural and Food Chemistry</i> , <b>1992</b> , 40, 904-908	5.7	37
81	A continuous spectrophotometric method based on enzymatic cycling for determining L-glutamate. <i>Analytical Biochemistry</i> , <b>1998</b> , 259, 265-71	3.1	36
80	Effect of l-proline on mushroom tyrosinase. <i>Phytochemistry</i> , <b>1988</b> , 27, 1961-1964	4	36
79	Hydrogen peroxide sensor based on in situ grown Pt nanoparticles from waste screen-printed electrodes. <i>Sensors and Actuators B: Chemical</i> , <b>2017</b> , 249, 499-505	8.5	35
78	Reactions of 4-methyl-o-benzoquinone, generated chemically or enzymatically, in the presence of l-proline. <i>Phytochemistry</i> , <b>1988</b> , 27, 2055-2061	4	35
77	A kinetic study of irreversible enzyme inhibition by an inhibitor that is rendered unstable by enzymic catalysis. The inhibition of polyphenol oxidase by L-cysteine. <i>Biochemical Journal</i> , <b>1991</b> , 277 ( Pt 3), 869-74	3.8	33
76	Electrochemical detection of extracellular hydrogen peroxide in <i>Arabidopsis thaliana</i> : a real-time marker of oxidative stress. <i>Plant, Cell and Environment</i> , <b>2013</b> , 36, 869-78	8.4	31
75	Optimizing enzymatic cycling assays: spectrophotometric determination of low levels of pyruvate and L-lactate. <i>Analytical Biochemistry</i> , <b>1996</b> , 239, 47-52	3.1	29
74	Development of an acetaminophen amperometric biosensor based on peroxidase entrapped in polyacrylamide microgels. <i>Biosensors and Bioelectronics</i> , <b>2011</b> , 26, 1883-9	11.8	28
73	pH-Dependent Effect of Sodium Chloride on Latent Grape Polyphenol Oxidase. <i>Journal of Agricultural and Food Chemistry</i> , <b>1998</b> , 46, 2447-2451	5.7	25
72	Highly sensitive H <sub>2</sub> O <sub>2</sub> sensor based on poly(azure A)-platinum nanoparticles deposited on activated screen printed carbon electrodes. <i>Sensors and Actuators B: Chemical</i> , <b>2019</b> , 298, 126878	8.5	24
71	Kinetics of the trypsinogen activation by enterokinase and trypsin. <i>Journal of Theoretical Biology</i> , <b>1990</b> , 145, 123-31	2.3	23

70	Inhibition of grape polyphenol oxidase by several natural aliphatic alcohols. <i>Journal of Agricultural and Food Chemistry</i> , <b>1990</b> , 38, 1097-1100	5.7	23
69	pH-induced kinetic co-operativity of a thylakoid-bound polyphenol oxidase. <i>Biochemical Journal</i> , <b>1992</b> , 286 ( Pt 2), 623-6	3.8	22
68	Quantification of acetaminophen by oxidation with tyrosinase in the presence of Besthorn's hydrazone. <i>Analytical Biochemistry</i> , <b>2003</b> , 318, 187-95	3.1	21
67	Kinetics of a self-amplifying substrate cycle: ADP-ATP cycling assay. <i>Biochemical Journal</i> , <b>2000</b> , 350, 237-243	3.3	21
66	Kinetics of a general model for enzyme activation through a limited proteolysis. <i>Mathematical Biosciences</i> , <b>1987</b> , 87, 31-45	3.9	21
65	Mechanism of acetaminophen oxidation by the peroxidase-like activity of methemoglobin. <i>Chemical Research in Toxicology</i> , <b>2009</b> , 22, 1841-50	4	20
64	Modeling the ascorbate-glutathione cycle in chloroplasts under light/dark conditions. <i>BMC Systems Biology</i> , <b>2016</b> , 10, 11	3.5	19
63	Computer simulation of the dynamic behavior of the glutathione-ascorbate redox cycle in chloroplasts. <i>Plant Physiology</i> , <b>2009</b> , 149, 1958-69	6.6	19
62	Kinetic study of an enzymic cycling system coupled to an enzymic step: determination of alkaline phosphatase activity. <i>Biochemical Journal</i> , <b>1995</b> , 309 ( Pt 1), 181-5	3.8	18
61	Kinetics of an enzyme reaction in which both the enzyme-substrate complex and the product are unstable or only the product is unstable. <i>Biochemical Journal</i> , <b>1994</b> , 303 ( Pt 2), 435-40	3.8	17
60	Kinetic analysis of the control through inhibition of autocatalytic zymogen activation. <i>Biochemical Journal</i> , <b>1992</b> , 282 ( Pt 2), 583-7	3.8	17
59	Changes in pH-dependent grape polyphenoloxidase activity during maturation. <i>Journal of Agricultural and Food Chemistry</i> , <b>1989</b> , 37, 1242-1245	5.7	17
58	Electrochemical performance of activated screen printed carbon electrodes for hydrogen peroxide and phenol derivatives sensing. <i>Journal of Electroanalytical Chemistry</i> , <b>2019</b> , 839, 75-82	4.1	16
57	Tyrosinase-mediated oxidation of acetaminophen to 4-acetamido-o-benzoquinone. <i>Biological Chemistry</i> , <b>2002</b> , 383, 1931-9	4.5	16
56	Catalytic oxidation of acetaminophen by tyrosinase in the presence of L-proline: a kinetic study. <i>Archives of Biochemistry and Biophysics</i> , <b>2003</b> , 416, 218-26	4.1	15
55	Glucose Biosensor Based on Disposable Activated Carbon Electrodes Modified with Platinum Nanoparticles Electrodeposited on Poly(Azure A). <i>Sensors</i> , <b>2020</b> , 20,	3.8	15
54	Halogen mediated voltammetric oxidation of biological thiols and disulfides. <i>Analyst, The</i> , <b>2016</b> , 141, 144-9	5	13
53	Biocatalytic oxidation of phenolic compounds by bovine methemoglobin in the presence of H <sub>2</sub> O <sub>2</sub> : quantitative structure-activity relationships. <i>Journal of Hazardous Materials</i> , <b>2012</b> , 241-242, 207-15	12.8	13

52	Iodine mediated electrochemical detection of thiols in plant extracts using platinum screen-printed electrodes. <i>Sensors and Actuators B: Chemical</i> , <b>2016</b> , 236, 1-7	8.5	12
51	Fire intensity and serotiny: response of germination and enzymatic activity in seeds of <i>Pinus halepensis</i> Mill. from southern Italy. <i>Annals of Forest Science</i> , <b>2013</b> , 70, 49-59	3.1	12
50	Catalase-like activity of human methemoglobin: a kinetic and mechanistic study. <i>Archives of Biochemistry and Biophysics</i> , <b>2011</b> , 516, 10-20	4.1	12
49	Kinetics of intra- and intermolecular zymogen activation with formation of an enzyme-zymogen complex. <i>FEBS Journal</i> , <b>2005</b> , 272, 85-96	5.7	12
48	Derivation of the transient phase equations of enzyme mechanisms from those of other systems. <i>Journal of Theoretical Biology</i> , <b>1990</b> , 143, 251-268	2.3	12
47	A Comparative Study of Poly(Azure A) Film-Modified Disposable Electrodes for Electrocatalytic Oxidation of H <sub>2</sub> O <sub>2</sub> Effect of Doping Anion. <i>Polymers</i> , <b>2018</b> , 10,	4.5	11
46	Non-enzymatic screen-printed sensor based on PtNPs@polyazure A for the real-time tracking of the HO secreted from living plant cells. <i>Bioelectrochemistry</i> , <b>2020</b> , 134, 107526	5.6	10
45	Kinetic analysis of a model for double substrate cycling: highly amplified ADP (and/or ATP) quantification. <i>Biophysical Journal</i> , <b>2004</b> , 86, 3598-606	2.9	10
44	Measurement of Total Antioxidant Capacity by Electrogenerated Iodine at Disposable Screen Printed Electrodes. <i>Electroanalysis</i> , <b>2017</b> , 29, 1316-1323	3	9
43	Fluorescence decrease of conjugated polymers by the catalytic activity of horseradish peroxidase and its application in phenolic compounds detection. <i>Biomacromolecules</i> , <b>2011</b> , 12, 1332-8	6.9	9
42	A kinetic study of a ternary cycle between adenine nucleotides. <i>FEBS Journal</i> , <b>2006</b> , 273, 3598-613	5.7	9
41	Enzymatic synthesis of 3Hydroxyacetaminophen catalyzed by tyrosinase. <i>Biotechnology Progress</i> , <b>2003</b> , 19, 1632-8	2.8	9
40	Kinetics of a self-amplifying substrate cycle: ADP-ATP cycling assay. <i>Biochemical Journal</i> , <b>2000</b> , 350, 237	3.8	9
39	Electrochemical Properties of Poly(Azure A) Films Synthesized in Sodium Dodecyl Sulfate Solution. <i>Journal of the Electrochemical Society</i> , <b>2017</b> , 164, G1-G9	3.9	8
38	Linear mixed irreversible inhibition of the autocatalytic activation of zymogens. Kinetic analysis checked by simulated progress curves. <i>International Journal of Biochemistry and Cell Biology</i> , <b>2002</b> , 34, 358-69	5.6	8
37	Design and Characterization of Effective Ag, Pt and AgPt Nanoparticles to H <sub>2</sub> O <sub>2</sub> Electroensing from Scrapped Printed Electrodes. <i>Sensors</i> , <b>2019</b> , 19,	3.8	7
36	Recycling Metals from Spent Screen-Printed Electrodes While Learning the Fundamentals of Electrochemical Sensing. <i>Journal of Chemical Education</i> , <b>2018</b> , 95, 847-851	2.4	7
35	Obtaining new composite biomaterials by means of mineralization of methacrylate hydrogels using the reaction-diffusion method. <i>Materials Science and Engineering C</i> , <b>2014</b> , 42, 696-704	8.3	7

34	Kinetic analysis of the general modifier mechanism of Botts and Morales involving a suicide substrate. <i>Journal of Theoretical Biology</i> , <b>2002</b> , 218, 355-74	2.3	7
33	Kinetics of autocatalytic zymogen activation measured by a coupled reaction: pepsinogen autoactivation. <i>Biological Chemistry</i> , <b>2005</b> , 386, 689-98	4.5	7
32	Comments on the kinetic analysis of enzyme reactions involving an unstable irreversible modifier. <i>Biochemical Journal</i> , <b>1992</b> , 287 ( Pt 1), 333-4	3.8	7
31	The kinetics of enzyme systems involving activation of zymogens. <i>Bulletin of Mathematical Biology</i> , <b>1993</b> , 55, 561-83	2.1	7
30	Kinetic analysis of the transient phase and steady state of open multicyclic enzyme cascades.. <i>Acta Biochimica Polonica</i> , <b>2005</b> , 52, 765-780	2	7
29	Kinetic behaviour of zymogen activation processes in the presence of an inhibitor. <i>Biochemical Journal</i> , <b>1993</b> , 290 ( Pt 2), 463-70	3.8	6
28	Kinetic analysis of the opened bicyclic enzyme cascades. <i>Biological Chemistry Hoppe-Seyler</i> , <b>1994</b> , 375, 365-71		6
27	Kinetic analysis of a Michaelis-Menten mechanism with an unstable substrate. <i>Journal of Molecular Catalysis</i> , <b>1993</b> , 83, 273-285		6
26	Iodine-mediated Oxidation of Resveratrol. An Electroanalytical Study Using Platinum and Glassy Carbon Electrodes. <i>Electroanalysis</i> , <b>2019</b> , 31, 1348-1355	3	5
25	Searching for the fluorescence quenching mechanism of conjugated polymers by cytochrome c. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , <b>2016</b> , 510, 300-308	5.1	5
24	Mathematical model for the determination of enzyme activity based on enzymatic amplification by substrate cycling. <i>Analytica Chimica Acta</i> , <b>1997</b> , 346, 215-221	6.6	5
23	Two New Regulatory Properties Arising from the Transient Phase Kinetics of Monocyclic Enzyme Cascades. <i>Journal of Mathematical Chemistry</i> , <b>2005</b> , 38, 437-450	2.1	5
22	Kinetic theory of the action of lipases. <i>Journal of Theoretical Biology</i> , <b>1992</b> , 157, 523-533	2.3	5
21	The kinetics of an enzyme catalyzed reaction in the presence of an unstable, irreversible modifier. <i>International Journal of Biochemistry &amp; Cell Biology</i> , <b>1993</b> , 25, 1889-1895		5
20	Kinetic study of a substrate cycle involving a chemical step: highly amplified determination of phenolic compounds. <i>Journal of Molecular Catalysis B: Enzymatic</i> , <b>1999</b> , 6, 429-436		4
19	General linear compartment model with zero input: III. First passage residence time of enzyme systems. <i>BioSystems</i> , <b>1995</b> , 36, 145-56	1.9	4
18	Kinetic study of an enzyme-catalysed reaction in the presence of novel irreversible-type inhibitors that react with the product of enzymatic catalysis. <i>Bulletin of Mathematical Biology</i> , <b>1995</b> , 57, 157-68	2.1	4
17	A Fast and Simple Ozone-mediated Method towards Highly Activated Screen Printed Carbon Electrodes as Versatile Electroanalytical Tools. <i>Electroanalysis</i> , <b>2019</b> , 31, 2437-2445	3	3

16	Removal of Organic Pollutants from Industrial Wastewater by Treatment with Oxidoreductase Enzymes. <i>Handbook of Environmental Chemistry</i> , <b>2014</b> , 317-339	0.8	3
15	Kinetic behaviour of proenzymes activation in the presence of different inhibitors for both activating and activated enzymes. <i>Journal of Theoretical Biology</i> , <b>2007</b> , 245, 175-92	2.3	3
14	Expressions for the fractional modification in different monocyclic enzyme cascade systems: analysis of their validity tested by numerical integration. <i>Bulletin of Mathematical Biology</i> , <b>2006</b> , 68, 1461-93	2.1	3
13	Analysis of Michaelis-Menten kinetics in the presence of irreversible inhibitors that react with the substrate. <i>International Journal of Biochemistry and Cell Biology</i> , <b>1995</b> , 27, 1211-1219	5.6	3
12	Time course of the uridylylation and adenylylation states in the glutamine synthetase bicyclic cascade. <i>Biochemical Journal</i> , <b>1993</b> , 294 ( Pt 3), 813-9	3.8	3
11	A general model for non-autocatalytic zymogen activation in the presence of two different and mutually exclusive inhibitors. I. Kinetic analysis. <i>Journal of Mathematical Chemistry</i> , <b>2010</b> , 48, 617-634	2.1	2
10	Kinetic analysis of the mechanism of plasminogen activation by streptokinase. <i>Journal of Mathematical Chemistry</i> , <b>2007</b> , 42, 753-774	2.1	2
9	On the performance of carbon-based screen-printed electrodes for (in)organic hydroperoxides sensing in rainwater. <i>Talanta</i> , <b>2021</b> , 234, 122699	6.2	2
8	Kinetic analysis of the transient phase and steady state of open multicyclic enzyme cascades. <i>Acta Biochimica Polonica</i> , <b>2005</b> , 52, 765-80	2	2
7	A general model for non-autocatalytic zymogen activation in the presence of two different and mutually exclusive inhibitors. II. Relative weight of activation and inhibition processes. <i>Journal of Mathematical Chemistry</i> , <b>2010</b> , 48, 635-652	2.1	1
6	Time behaviour of the modifier involved in the general mechanism of Botts and Morales assuming rapid equilibrium in the modifier bindings. <i>Journal of Mathematical Chemistry</i> , <b>2005</b> , 38, 67-88	2.1	1
5	Kinetics of an autocatalytic zymogen reaction in the presence of an inhibitor coupled to a monitoring reaction. <i>Bulletin of Mathematical Biology</i> , <b>1996</b> , 58, 19-41	2.1	1
4	REMOVAL OF AROMATIC COMPOUNDS FROM WASTEWATER BY HEMOGLOBIN SOLUBLE AND IMMOBILIZED ON EUPERGIT. CM. <i>Environmental Engineering and Management Journal</i> , <b>2014</b> , 13, 2459-2466	0.6	1
3	Combining Fuzzy Logic and CEP Technology to Improve Air Quality in Cities. <i>Lecture Notes in Computer Science</i> , <b>2019</b> , 559-565	0.9	
2	Optimized derivation of transfer functions and a software giving it. Application to biological systems. <i>Applied Mathematics and Computation</i> , <b>2007</b> , 184, 823-841	2.7	
1	Contribution of the intra- and intermolecular routes in autocatalytic zymogen activation: application to pepsinogen activation. <i>Acta Biochimica Polonica</i> , <b>2006</b> , 53, 407-20	2	