Edelmira Valero

List of Publications by Year
in descending order

87 papers	1,550 citations	279701 23 h-index	377752 34 g-index
90 all docs	90 docs citations	90 times ranked	1548 citing authors

#	Article	IF	Citations
1	On the Dynamics of the Adenylate Energy System: Homeorhesis vs Homeostasis. PLoS ONE, 2014, 9, e108676.	1.1	86
2	Time-dependent inhibition of grape polyphenol oxidase by tropolone. Journal of Agricultural and Food Chemistry, 1991, 39, 1043-1046.	2.4	79
3	Characterization of Polyphenol Oxidase from Airen Grapes. Journal of Food Science, 1988, 53, 1482-1485.	1.5	76
4	Highly activated screen-printed carbon electrodes by electrochemical treatment with hydrogen peroxide. Electrochemistry Communications, 2018, 91, 36-40.	2.3	65
5	Hydrogen peroxide sensor based on in situ grown Pt nanoparticles from waste screen-printed electrodes. Sensors and Actuators B: Chemical, 2017, 249, 499-505.	4.0	44
6	A Continuous Spectrophotometric Method Based on Enzymatic Cycling for Determiningl-Glutamate. Analytical Biochemistry, 1998, 259, 265-271.	1.1	41
7	Electrochemical performance of activated screen printed carbon electrodes for hydrogen peroxide and phenol derivatives sensing. Journal of Electroanalytical Chemistry, 2019, 839, 75-82.	1.9	41
8	Highly sensitive H2O2 sensor based on poly(azure A)-platinum nanoparticles deposited on activated screen printed carbon electrodes. Sensors and Actuators B: Chemical, 2019, 298, 126878.	4.0	40
9	Hysteresis and Cooperative Behavior of a Latent Plant Polyphenoloxidase. Plant Physiology, 1992, 98, 774-776.	2.3	39
10	Kinetic study of the effect of metabisulfite on polyphenol oxidase. Journal of Agricultural and Food Chemistry, 1992, 40, 904-908.	2.4	39
11	Effect of l-proline on mushroom tyrosinase. Phytochemistry, 1988, 27, 1961-1964.	1.4	38
12	Electrochemical detection of extracellular hydrogen peroxide in Arabidopsis thaliana: a realâ€time marker of oxidative stress. Plant, Cell and Environment, 2013, 36, 869-878.	2.8	38
13	Reactions of 4-methyl-o-benzoquinone, generated chemically or enzymatically, in the presence of l-proline. Phytochemistry, 1988, 27, 2055-2061.	1.4	37
14	A kinetic study of irreversible enzyme inhibition by an inhibitor that is rendered unstable by enzymic catalysis. The inhibition of polyphenol oxidase by <scp>l</scp>-cysteine. Biochemical Journal, 1991, 277, 869-874.	1.7	37
15	Development of an acetaminophen amperometric biosensor based on peroxidase entrapped in polyacrylamide microgels. Biosensors and Bioelectronics, 2011, 26, 1883-1889.	5.3	35
16	Optimizing Enzymatic Cycling Assays: Spectrophotometric Determination of Low Levels of Pyruvate andL-Lactate. Analytical Biochemistry, 1996, 239, 47-52.	1.1	31
17	Glucose Biosensor Based on Disposable Activated Carbon Electrodes Modified with Platinum Nanoparticles Electrodeposited on Poly(Azure A). Sensors, 2020, 20, 4489.	2.1	31
18	Inhibition of grape polyphenol oxidase by several natural aliphatic alcohols. Journal of Agricultural and Food Chemistry, 1990, 38, 1097-1100.	2.4	28

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19	pH-Dependent Effect of Sodium Chloride on Latent Grape Polyphenol Oxidase. Journal of Agricultural and Food Chemistry, 1998, 46, 2447-2451.	2.4	28
20	Quantification of acetaminophen by oxidation with tyrosinase in the presence of Besthornâ€™s hydrazone. Analytical Biochemistry, 2003, 318, 187-195.	1.1	27
21	Modeling the ascorbate-glutathione cycle in chloroplasts under light/dark conditions. BMC Systems Biology, 2015, 10, 11.	3.0	26
22	Kinetics of the trypsinogen activation by enterokinase and trypsin. Journal of Theoretical Biology, 1990, 145, 123-131.	0.8	24
23	pH-induced kinetic co-operativity of a thylakoid-bound polyphenol oxidase. Biochemical Journal, 1992, 286, 623-626.	1.7	24
24	Mechanism of Acetaminophen Oxidation by the Peroxidase-like Activity of Methemoglobin. Chemical Research in Toxicology, 2009, 22, 1841-1850.	1.7	24
25	Kinetics of a self-amplifying substrate cycle: ADPâ€“ATP cycling assay. Biochemical Journal, 2000, 350, 237-243.	1.7	22
26	Computer Simulation of the Dynamic Behavior of the Glutathione-Ascorbate Redox Cycle in Chloroplasts Â. Plant Physiology, 2009, 149, 1958-1969.	2.3	22
27	Kinetics of a general model for enzyme activation through a limited proteolysis. Mathematical Biosciences, 1987, 87, 31-45.	0.9	21
28	Catalytic oxidation of acetaminophen by tyrosinase in the presence of l-proline: a kinetic study. Archives of Biochemistry and Biophysics, 2003, 416, 218-226.	1.4	21
29	Kinetic study of an enzymic cycling system coupled to an enzymic step: determination of alkaline phosphatase activity. Biochemical Journal, 1995, 309, 181-185.	1.7	20
30	Changes in pH-dependent grape polyphenoloxidase activity during maturation. Journal of Agricultural and Food Chemistry, 1989, 37, 1242-1245.	2.4	19
31	Kinetic analysis of the control through inhibition of autocatalytic zymogen activation. Biochemical Journal, 1992, 282, 583-587.	1.7	18
32	Tyrosinase-Mediated Oxidation of Acetaminophen to 4-Acetamido-o- Benzoquinone. Biological Chemistry, 2002, 383, 1931-9.	1.2	18
33	Kinetics of an enzyme reaction in which both the enzyme-substrate complex and the product are unstable or only the product is unstable. Biochemical Journal, 1994, 303, 435-440.	1.7	17
34	Non-enzymatic screen-printed sensor based on PtNPs@polyazure A for the real-time tracking of the H2O2 secreted from living plant cells. Bioelectrochemistry, 2020, 134, 107526.	2.4	17
35	Kinetics of intra- and intermolecular zymogen activation with formation of an enzyme-zymogen complex. FEBS Journal, 2004, 272, 85-96.	2.2	16
36	Biocatalytic oxidation of phenolic compounds by bovine methemoglobin in the presence of H2O2: Quantitative structureâ€“activity relationships. Journal of Hazardous Materials, 2012, 241-242, 207-215.	6.5	16

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37	Iodine mediated electrochemical detection of thiols in plant extracts using platinum screen-printed electrodes. Sensors and Actuators B: Chemical, 2016, 236, 1-7.	4.0	15
38	Catalase-like activity of human methemoglobin: A kinetic and mechanistic study. Archives of Biochemistry and Biophysics, 2011, 516, 10-20.	1.4	14
39	Halogen mediated voltammetric oxidation of biological thiols and disulfides. Analyst, The, 2016, 141, 144-149.	1.7	14
40	Fire intensity and serotiny: response of germination and enzymatic activity in seeds of Pinus halepensis Mill. from southern Italy. Annals of Forest Science, 2013, 70, 49-59.	0.8	13
41	Obtaining new composite biomaterials by means of mineralization of methacrylate hydrogels using the reactionâ€“diffusion method. Materials Science and Engineering C, 2014, 42, 696-704.	3.8	13
42	Recycling Metals from Spent Screen-Printed Electrodes While Learning the Fundamentals of Electrochemical Sensing. Journal of Chemical Education, 2018, 95, 847-851.	1.1	13
43	A Comparative Study of Poly(Azure A) Film-Modified Disposable Electrodes for Electrocatalytic Oxidation of H2O2: Effect of Doping Anion. Polymers, 2018, 10, 48.	2.0	13
44	Derivation of the transient phase equations of enzyme mechanisms from those of other systems. Journal of Theoretical Biology, 1990, 143, 251-268.	0.8	12
45	Enzymatic Synthesis of 3'-Hydroxyacetaminophen Catalyzed by Tyrosinase. Biotechnology Progress, 2003, 19, 1632-1638.	1.3	11
46	A kinetic study of a ternary cycle between adenine nucleotides. FEBS Journal, 2006, 273, 3598-3613.	2.2	11
47	Linear mixed irreversible inhibition of the autocatalytic activation of zymogens. International Journal of Biochemistry and Cell Biology, 2002, 34, 358-369.	1.2	10
48	Kinetic Analysis of a Model for Double Substrate Cycling: Highly Amplified ADP (and/or ATP) Quantification. Biophysical Journal, 2004, 86, 3598-3606.	0.2	10
49	Kinetics of autocatalytic zymogen activation measured by a coupled reaction: pepsinogen autoactivation. Biological Chemistry, 2005, 386, 689-98.	1.2	10
50	Design and Characterization of Effective Ag, Pt and AgPt Nanoparticles to H2O2 Electrosensing from Scrapped Printed Electrodes. Sensors, 2019, 19, 1685.	2.1	10
51	The kinetics of enzyme systems involving activation of zymogens. Bulletin of Mathematical Biology, 1993, 55, 561-583.	0.9	9
52	Kinetics of a self-amplifying substrate cycle: ADPâ€'ATP cycling assay. Biochemical Journal, 2000, 350, 237.	1.7	9
53	Fluorescence Decrease of Conjugated Polymers by the Catalytic Activity of Horseradish Peroxidase and Its Application in Phenolic Compounds Detection. Biomacromolecules, 2011, 12, 1332-1338.	2.6	9
54	Electrochemical Properties of Poly(Azure A) Films Synthesized in Sodium Dodecyl Sulfate Solution. Journal of the Electrochemical Society, 2017, 164, G1-G9.	1.3	9

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55	Measurement of Total Antioxidant Capacity by Electrogenerated Iodine at Disposable Screen Printed Electrodes. Electroanalysis, 2017, 29, 1316-1323.	1.5	9
56	Kinetic Analysis of the Opened Bicyclic Enzyme Cascades. Biological Chemistry Hoppe-Seyler, 1994, 375, 365-372.	1.4	8
57	Comments on the kinetic analysis of enzyme reactions involving an unstable irreversible modifier. Biochemical Journal, 1992, 287, 333-334.	1.7	7
58	Kinetic Analysis of the General Modifier Mechanism of Botts and Morales Involving a Suicide Substrate. Journal of Theoretical Biology, 2002, 218, 355-374.	0.8	7
59	Iodineâ€mediated Oxidation of Resveratrol. An Electroanalytical Study Using Platinum and Glassy Carbon Electrodes. Electroanalysis, 2019, 31, 1348-1355.	1.5	7
60	On the performance of carbon-based screen-printed electrodes for (in)organic hydroperoxides sensing in rainwater. Talanta, 2021, 234, 122699.	2.9	7
61	Kinetic analysis of the transient phase and steady state of open multicyclic enzyme cascades.. Acta Biochimica Polonica, 2005, 52, 765-780.	0.3	7
62	Kinetic analysis of a Michaelisâ€”Menten mechanism with an unstable substrate. Journal of Molecular Catalysis, 1993, 83, 273-285.	1.2	6
63	Kinetic behaviour of zymogen activation processes in the presence of an inhibitor. Biochemical Journal, 1993, 290, 463-470.	1.7	6
64	Mathematical model for the determination of enzyme activity based on enzymatic amplification by substrate cycling. Analytica Chimica Acta, 1997, 346, 215-221.	2.6	6
65	A Fast and Simple Ozoneâ€mediated Method towards Highly Activated Screen Printed Carbon Electrodes as Versatile Electroanalytical Tools. Electroanalysis, 2019, 31, 2437-2445.	1.5	6
66	Kinetic theory of the action of lipases. Journal of Theoretical Biology, 1992, 157, 523-533.	0.8	5
67	The kinetics of an enzyme catalyzed reaction in the presence of an unstable, irreversible modifier. International Journal of Biochemistry & Cell Biology, 1993, 25, 1889-1895.	0.8	5
68	Kinetic study of a substrate cycle involving a chemical step: highly amplified determination of phenolic compounds. Journal of Molecular Catalysis B: Enzymatic, 1999, 6, 429-436.	1.8	5
69	Two New Regulatory Properties Arising from the Transient Phase Kinetics of Monocyclic Enzyme Cascades. Journal of Mathematical Chemistry, 2005, 38, 437-450.	0.7	5
70	Kinetic behaviour of proenzymes activation in the presence of different inhibitors for both activating and activated enzymes. Journal of Theoretical Biology, 2007, 245, 175-192.	0.8	5
71	Searching for the fluorescence quenching mechanism of conjugated polymers by cytochrome c. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2016, 510, 300-308.	2.3	5
72	General linear compartment model with zero input: III. First passage residence time of enzyme systems. BioSystems, 1995, 36, 145-156.	0.9	4

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73	Kinetic study of an enzyme-catalysed reaction in the presence of novel irreversible-type inhibitors that react with the product of enzymatic catalysis. Bulletin of Mathematical Biology, 1995, 57, 157-168.	0.9	4
74	Time course of the uridylylation and adenylylation states in the glutamine synthetase bicyclic cascade. Biochemical Journal, 1993, 294, 813-819.	1.7	3
75	Analysis of Michaelis-Menten kinetics in the presence of irreversible inhibitors that react with the substrate. International Journal of Biochemistry and Cell Biology, 1995, 27, 1211-1219.	1.2	3
76	Expressions for the Fractional Modification in Different Monocyclic Enzyme Cascade Systems: Analysis of their Validity Tested by Numerical Integration. Bulletin of Mathematical Biology, 2006, 68, 1461-1493.	0.9	3
77	Removal of Organic Pollutants from Industrial Wastewater by Treatment with Oxidoreductase Enzymes. Handbook of Environmental Chemistry, 2014, , 317-339.	0.2	3
78	REMOVAL OF AROMATIC COMPOUNDS FROM WASTEWATER BY HEMOGLOBIN SOLUBLE AND IMMOBILIZED ON EUPERGIT. CM. Environmental Engineering and Management Journal, 2014, 13, 2459-2466.	0.2	3
79	Kinetics of an autocatalytic zymogen reaction in the presence of an inhibitor coupled to a monitoring reaction. Bulletin of Mathematical Biology, 1996, 58, 19-41.	0.9	2
80	Kinetic analysis of the mechanism of plasminogen activation by streptokinase. Journal of Mathematical Chemistry, 2007, 42, 753-774.	0.7	2
81	A general model for non-autocatalytic zymogen activation in the presence of two different and mutually exclusive inhibitors. I. Kinetic analysis. Journal of Mathematical Chemistry, 2010, 48, 617-634.	0.7	2
82	Kinetic analysis of the transient phase and steady state of open multicyclic enzyme cascades. Acta Biochimica Polonica, 2005, 52, 765-80.	0.3	2
83	Time behaviour of the modifier involved in the general mechanism of Botts and Morales assuming rapid equilibrium in the modifier bindings. Journal of Mathematical Chemistry, 2005, 38, 67-88.	0.7	1
84	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. Journal of Mathematical Chemistry, 2010, 48, 635-652.	0.7	1
85	Combining Fuzzy Logic and CEP Technology to Improve Air Quality in Cities. Lecture Notes in Computer Science, 2019, , 559-565.	1.0	1
86	Optimized derivation of transfer functions and a software giving it. Application to biological systems. Applied Mathematics and Computation, 2007, 184, 823-841.	1.4	0
87	Contribution of the intra- and intermolecular routes in autocatalytic zymogen activation: application to pepsinogen activation. Acta Biochimica Polonica, 2006, 53, 407-20.	0.3	0