Marino B Arnao

List of Publications by Year
in descending order

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109 papers	10,706 citations	34105 52 h-index	31849 101 g-index
111 all docs	111 docs citations	111 times ranked	6771 citing authors

#	Article	IF	Citations
1	The hydrophilic and lipophilic contribution to total antioxidant activity. Food Chemistry, 2001, 73, 239-244.	8.2	1,019
2	Functions of melatonin in plants: a review. Journal of Pineal Research, 2015, 59, 133-150.	7.4	644
3	Melatonin: A New Plant Hormone and/or a Plant Master Regulator?. Trends in Plant Science, 2019, 24, 38-48.	8.8	548
4	Melatonin: plant growth regulator and/or biostimulator during stress?. Trends in Plant Science, 2014, 19, 789-797.	8.8	502
5	Some methodological problems in the determination of antioxidant activity using chromogen radicals: a practical case. Trends in Food Science and Technology, 2000, 11, 419-421.	15.1	427
6	Melatonin and its relationship to plant hormones. Annals of Botany, 2018, 121, 195-207.	2.9	415
7	Protective effect of melatonin against chlorophyll degradation during the senescence of barley leaves. Journal of Pineal Research, 2009, 46, 58-63.	7.4	319
8	An end-point method for estimation of the total antioxidant activity in plant material. Phytochemical Analysis, 1998, 9, 196-202.	2.4	296
9	Melatonin: a growth-stimulating compound present in lupin tissues. Planta, 2004, 220, 140-144.	3.2	289
10	Melatonin acts as a growthâ€stimulating compound in some monocot species. Journal of Pineal Research, 2005, 39, 137-142.	7.4	278
11	A kinetic study on the suicide inactivation of peroxidase by hydrogen peroxide. BBA - Proteins and Proteomics, 1990, 1041, 43-47.	2.1	256
12	Melatonin promotes adventitious- and lateral root regeneration in etiolated hypocotyls of Lupinus albus L.. Journal of Pineal Research, 2007, 42, 147-152.	7.4	247
13	The Physiological Function of Melatonin in Plants. Plant Signaling and Behavior, 2006, 1, 89-95.	2.4	242
14	Inactivation of peroxidase by hydrogen peroxide and its protection by a reductant agent. BBA - Proteins and Proteomics, 1990, 1038, 85-89.	2.1	166
15	Chemical stress by different agents affects the melatonin content of barley roots. Journal of Pineal Research, 2009, 46, 295-299.	7.4	165
16	Inhibition byl-Ascorbic Acid and Other Antioxidants of the 2,2â€²-Azino-bis(3-ethylbenzthiazoline-6-sulfonic Acid) Oxidation Catalyzed by Peroxidase: A New Approach for Determining Total Antioxidant Status of Foods. Analytical Biochemistry, 1996, 236, 255-261.	2.4	162
17	Melatonin and Its Effects on Plant Systems. Molecules, 2018, 23, 2352.	3.8	157
18	Melatonin and Its Protective Role against Biotic Stress Impacts on Plants. Biomolecules, 2020, 10, 54.	4.0	153

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19	Melatonin in flowering, fruit set and fruit ripening. Plant Reproduction, 2020, 33, 77-87.	2.2	150
20	Catalase-like activity of horseradish peroxidase: relationship to enzyme inactivation by H2O2. Biochemical Journal, 2001, 354, 107-114.	3.7	149
21	Methods to Measure the Antioxidant Activity in Plant Material. A Comparative Discussion. Free Radical Research, 1999, 31, 89-96.	3.3	144
22	Growth conditions determine different melatonin levels in <scp>L</scp>upinus albus <scp>L</scp>. Journal of Pineal Research, 2013, 55, 149-155.	7.4	142
23	Hydrophilic and lipophilic antioxidant activity changes during on-vine ripening of tomatoes (Lycopersicon esculentum Mill.). Postharvest Biology and Technology, 2003, 28, 59-65.	6.0	134
24	A method to measure antioxidant activity in organic media: application to lipophilic vitamins. Redox Report, 2000, 5, 365-370.	4.5	128
25	Melatonin and reactive oxygen and nitrogen species: a model for the plant redox network. Melatonin Research, 2019, 2, 152-168.	1.1	118
26	Phytomelatonin: Discovery, Content, and Role in Plants. Advances in Botany, 2014, 2014, 1-11.	3.4	105
27	Growth activity, rooting capacity, and tropism: three auxinic precepts fulfilled by melatonin. Acta Physiologiae Plantarum, 2017, 39, 1.	2.1	104
28	Distribution of Melatonin in Different Zones of Lupin and Barley Plants at Different Ages in the Presence and Absence of Light. Journal of Agricultural and Food Chemistry, 2008, 56, 10567-10573.	5.2	102
29	Is Phytomelatonin a New Plant Hormone?. Agronomy, 2020, 10, 95.	3.0	102
30	Relationship of Melatonin and Salicylic Acid in Biotic/Abiotic Plant Stress Responses. Agronomy, 2018, 8, 33.	3.0	100
31	Growth conditions influence the melatonin content of tomato plants. Food Chemistry, 2013, 138, 1212-1214.	8.2	99
32	Melatonin Suppressed the Heat Stress-Induced Damage in Wheat Seedlings by Modulating the Antioxidant Machinery. Plants, 2020, 9, 809.	3.5	99
33	Melatonin as a regulatory hub of plant hormone levels and action in stress situations. Plant Biology, 2021, 23, 7-19.	3.8	99
34	Melatonin stimulates the expansion of etiolated lupin cotyledons. Plant Growth Regulation, 2008, 55, 29-34.	3.4	96
35	Melatonin-Induced Water Stress Tolerance in Plants: Recent Advances. Antioxidants, 2020, 9, 809.	5.1	95
36	Kinetic study of the inactivation of ascorbate peroxidase by hydrogen peroxide. Biochemical Journal, 2000, 348, 321-328.	3.7	87

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37	Catalase-like activity of horseradish peroxidase: relationship to enzyme inactivation by H2O2. Biochemical Journal, 2001, 354, 107.	3.7	86
38	A comparative study of the purity, enzyme activity, and inactivation by hydrogen peroxide of commercially available horseradish peroxidase isoenzymes A and C. Biotechnology and Bioengineering, 1996, 50, 655-662.	3.3	83
39	An enzymatic colorimetric method for measuring naringin using 2,2â€²-azino-bis-(3-ethylbenzthiazoline-6-sulfonic acid) (ABTS) in the presence of peroxidase. Analytical Biochemistry, 1990, 185, 335-338.	2.4	79
40	Role of Melatonin in Plant Tolerance to Soil Stressors: Salinity, pH and Heavy Metals. Molecules, 2020, 25, 5359.	3.8	79
41	A peroxidase isoenzyme secreted by turnip (Brassica napus) hairy-root cultures: inactivation by hydrogen peroxide and application in diagnostic kits. Biotechnology and Applied Biochemistry, 2002, 35, 1.	3.1	76
42	The Inactivation and Catalytic Pathways of Horseradish Peroxidase with m-Chloroperoxybenzoic Acid. Journal of Biological Chemistry, 1997, 272, 5469-5476.	3.4	75
43	Phytomelatonin: An overview of the importance and mediating functions of melatonin against environmental stresses. Physiologia Plantarum, 2021, 172, 820-846.	5.2	75
44	Free radical-scavenging activity of indolic compounds in aqueous and ethanolic media. Analytical and Bioanalytical Chemistry, 2003, 376, 33-37.	3.7	73
45	Reactions of the Class II Peroxidases, Lignin Peroxidase andArthromyces ramosus Peroxidase, with Hydrogen Peroxide. Journal of Biological Chemistry, 2002, 277, 26879-26885.	3.4	71
46	Estimation of free radical-quenching activity of leaf pigment extracts. Phytochemical Analysis, 2001, 12, 138-143.	2.4	69
47	A Comparative Study of the Inactivation of Wild-Type, Recombinant and Two Mutant Horseradish Peroxidase Isoenzymes C by Hydrogen Peroxide and m-chloroperoxybenzoic Acid. FEBS Journal, 1995, 234, 506-512.	0.2	68
48	The Potential of Phytomelatonin as a Nutraceutical. Molecules, 2018, 23, 238.	3.8	68
49	Phytomelatonin: an unexpected molecule with amazing performances in plants. Journal of Experimental Botany, 2022, 73, 5779-5800.	4.8	62
50	Chemical and functional properties of the different by-products of artichoke (Cynara scolymus L.) from industrial canning processing. Food Chemistry, 2014, 160, 134-140.	8.2	58
51	Chamomile (Matricaria chamomilla L.): A Review of Ethnomedicinal Use, Phytochemistry and Pharmacological Uses. Life, 2022, 12, 479.	2.4	57
52	Catalase-like Oxygen Production by Horseradish Peroxidase Must Predominantly Be an Enzyme-Catalyzed Reaction. Archives of Biochemistry and Biophysics, 2001, 392, 295-302.	3.0	56
53	Assessment of different sample processing procedures applied to the determination of melatonin in plants. Phytochemical Analysis, 2009, 20, 14-18.	2.4	53
54	Detection of a tryptophan radical in the reaction of ascorbate peroxidase with hydrogen peroxide. FEBS Journal, 2001, 268, 3091-3098.	0.2	52

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55	On-line antioxidant activity determination: comparison of hydrophilic and lipophilic antioxidant activity using the ABTSâ€¢+assay. Redox Report, 2002, 7, 103-109.	4.5	52
56	Functions of Melatonin during Postharvest of Horticultural Crops. Plant and Cell Physiology, 2023, 63, 1764-1786.	3.1	51
57	Chitosan Induces Plant Hormones and Defenses in Tomato Root Exudates. Frontiers in Plant Science, 2020, 11, 572087.	3.6	50
58	The inactivation of horseradish peroxidase isoenzyme AZ by hydrogen peroxide: an example of partial resistance due to the formation of a stable enzyme intermediate. Journal of Biological Inorganic Chemistry, 2001, 6, 504-516.	2.6	45
59	Hydrophilic and Lipophilic Antioxidant Activity in Different Leaves of Three Lettuce Varieties. International Journal of Food Properties, 2005, 8, 521-528.	3.0	45
60	Melatonin as a Chemical Substance or as Phytomelatonin Rich-Extracts for Use as Plant Protector and/or Biostimulant in Accordance with EC Legislation. Agronomy, 2019, 9, 570.	3.0	45
61	Role of Melatonin to Enhance Phytoremediation Capacity. Applied Sciences (Switzerland), 2019, 9, 5293.	2.5	43
62	Melatonin as a plant biostimulant in crops and during postâ€harvest: a new approach is needed. Journal of the Science of Food and Agriculture, 2021, 101, 5297-5304.	3.5	39
63	Melatonin and Carbohydrate Metabolism in Plant Cells. Plants, 2021, 10, 1917.	3.5	35
64	Superoxide scavenging by polyphenols: effect of conjugation and dimerization. Redox Report, 2002, 7, 379-383.	4.5	33
65	Hydrophilic and lipophilic antioxidant activities of grapes. Molecular Nutrition and Food Research, 2002, 46, 353-356.	0.0	33
66	Phytomelatonin, natural melatonin from plants as a novel dietary supplement: Sources, activities and world market. Journal of Functional Foods, 2018, 48, 37-42.	3.4	33
67	Kinetic study of the inactivation of ascorbate peroxidase by hydrogen peroxide. Biochemical Journal, 2000, 348, 321.	3.7	31
68	Melatonin against environmental plant stressors: a review. Current Protein and Peptide Science, 2021, 21, 413-429.	1.4	31
69	Melatonin in Plants. Plant Signaling and Behavior, 2007, 2, 381-382.	2.4	30
70	Protective effect of white tea extract against acute oxidative injury caused by adriamycin in different tissues. Food Chemistry, 2012, 134, 1780-1785.	8.2	28
71	Influence of cold storage period and auxin treatment on the subsequent rooting of carnation cuttings. Scientia Horticulturae, 1996, 65, 73-84.	3.6	27
72	Indole-3-carbinol as a scavenger of free radicals. IUBMB Life, 1996, 39, 1125-1134.	3.4	27

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73	Validation of three automated assays for total antioxidant capacity determination in canine serum samples. Journal of Veterinary Diagnostic Investigation, 2016, 28, 693-698.	1.1	27
74	Kinetic characterization of the inactivation process of two peroxidase isoenzymes in the oxidation of indolyl-3-acetic acid. BBA - Proteins and Proteomics, 1989, 996, 7-12.	2.1	26
75	Kinetic study of the inactivation of ascorbate peroxidase by hydrogen peroxide. Biochemical Journal, 2000, 348 Pt 2, 321-8.	3.7	22
76	Oxygen consumption and enzyme inactivation in the indolyl-3-acetic acid oxidation catalyzed by peroxidase. BBA - Proteins and Proteomics, 1988, 955, 194-202.	2.1	21
77	Total antioxidant activity in Quercus ilex resprouts after fire. Plant Physiology and Biochemistry, 2003, 41, 41-47.	5.8	21
78	Melatonin: synthesis from tryptophan and its role in higher plant.. , 2015, , 390-435.		21
79	Melatonin as a Possible Natural Safener in Crops. Plants, 2022, 11, 890.	3.5	21
80	QUANTITATION OF INDOLE-3-ACETIC ACID BY LC WITH ELECTROCHEMICAL DETECTION IN ETIOLATED HYPOCOTYLS OF LUPINUS ALBUS. Journal of Liquid Chromatography and Related Technologies, 2001, 24, 3095-3104.	1.0	20
81	Molecular mechanisms by which white tea prevents oxidative stress. Journal of Physiology and Biochemistry, 2014, 70, 891-900.	3.0	20
82	Development of a Phytomelatonin-Rich Extract from Cultured Plants with Excellent Biochemical and Functional Properties as an Alternative to Synthetic Melatonin. Antioxidants, 2020, 9, 158.	5.1	19
83	Phytomelatonin: Searching for Plants with High Levels for Use as a Natural Nutraceutical. Studies in Natural Products Chemistry, 2015, 46, 519-545.	1.8	17
84	Longâ€term intake of white tea prevents oxidative damage caused by adriamycin in kidney of rats. Journal of the Science of Food and Agriculture, 2016, 96, 3079-3087.	3.5	17
85	Exogenous Melatonin Enhances Cd Tolerance and Phytoremediation Efficiency by Ameliorating Cd-Induced Stress in Oilseed Crops: A Review. Journal of Plant Growth Regulation, 2022, 41, 922-935.	5.1	16
86	Melatonin Alleviates Chilling Injury Symptom Development in Mango Fruit by Maintaining Intracellular Energy and Cell Wall and Membrane Stability. Frontiers in Nutrition, 0, 9, .	3.7	16
87	Polar Transport of Indole-3-Acetic Acid in Relation to Rooting in Carnation Cuttings: Influence of Cold Storage Duration and Cultivar. Biologia Plantarum, 2003, 46, 481-485.	1.9	14
88	Inhibition of Etiolated Lupin Hypocotyl Growth and Rooting by Peroxides, Ascorbate and Glutathione. Journal of Plant Physiology, 1996, 147, 721-728.	3.5	13
89	Inhibition of ACC oxidase activity by melatonin and indole-3-acetic acid in etiolated lupin hypocotyls. , 2007, , 101-103.		13
90	The Multi-Regulatory Properties of Melatonin in Plants. , 2018, , 71-101.		10

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91	Phytomelatonin, an Interesting Tool for Agricultural Crops. Focus on Sciences, 2016, 2, 1-10.	0.2	10
92	The inactivation of horseradish peroxidase by m-chloroperoxybenzoic acid, a xenobiotic hydroperoxide. Journal of Molecular Catalysis A, 1995, 104, 179-191.	4.8	9
93	Characterization of isoperoxidase-B2 inactivation in etiolated Lupinus albus hypocotyls. BBA - Proteins and Proteomics, 2000, 1478, 78-88.	2.1	9
94	Changes in hydrophilic antioxidant activity in Avena sativa and Triticum aestivum leaves of different age during de-etiolation and high-light treatment. Journal of Plant Research, 2006, 119, 321-327.	2.4	9
95	Melatonin in Brassicaceae: Role in Postharvest and Interesting Phytochemicals. Molecules, 2022, 27, 1523.	3.8	9
96	1-Aminocyclopropane-1-carâ˜ylic acid as a substrate of peroxidase: conditions for oxygen consumption, hydroperoxide generation and ethylene production. BBA - Proteins and Proteomics, 1991, 1077, 273-280.	2.1	8
97	Role of the reductant substrates on the inactivation of horseradish peroxidase by mâ€Chloroperoxybenzoic acid. IUBMB Life, 1996, 39, 97-107.	3.4	6
98	Influence of peroxides, ascorbate and glutathione on germination and growth in Lupinus albus L.. Biologia Plantarum, 1997, 39, 457-461.	1.9	6
99	Adiponectin agonist treatment in diabetic pregnant rats. Journal of Endocrinology, 2021, 251, 1-13.	2.6	6
100	Regulatory Role of Melatonin in the Redox Network of Plants and Plant Hormone Relationship in Stress. Plant in Challenging Environments, 2021, , 235-272.	0.4	6
101	ACTIVIDAD ANTIOXIDANTE HIDROFÃLICA Y LIPOFÃLICA Y CONTENIDO EN VITAMINA C DE ZUMOS DE NARANJA COMERCIALES: RELACIÃ“N CON SUS CARACTERÃSTICAS ORGANOLÃ‰PTICAS LIPOPHILIC AND HYDROPHILIC ANTIOXIDANT ACTIVITY AND VITAMIN C CONTENT OF COMMERCIAL ORANGE JUICES: CORRELATION WITH ORGANOLEPTIC PARAMETERS ACTIVIDADE ANTIOXIDANTE HIDROFÃLICA E LIPOFÃLICA E CONTIDO EN VITAMINA C DE ZUMOS DE LARANXA COMERCIAIS: RELACIÃ“N COAS CARACTERÃSTICAS ORGANOLÃ‰PTICAS. Ciencia Y Tecnologia Alimentaria, 2004, 4, 185-189.	0.4	5
102	ABTS/TEAC (2,2â€™-azino-bis(3-ethylbenzothiazoline-6-sulfonic acid)/TroloxÂ®-Equivalent Antioxidant) Tj ETQq0 0 0 rgBT /Overlock 10		5
103	Complexes Between m-chloroperoxybenzoic Acid and Horseradish Peroxidase Compounds I and II: Implications for the Kinetics of Enzyme Inactivation. Journal of Enzyme Inhibition and Medicinal Chemistry, 2002, 17, 287-291.	5.2	4
104	A colorimetric method for the determination of different functional flavonoids using 2,2'-azino-bis-(3-ethylbenzthiazoline-6-sulphonic acid) (ABTS) and peroxidase. Preparative Biochemistry and Biotechnology, 2019, 49, 1033-1039.	1.9	3
105	A Phytomelatonin-Rich Extract Obtained from Selected Herbs with Application as Plant Growth Regulator. Plants, 2021, 10, 2143.	3.5	3
106	Phytomelatonin versus synthetic melatonin in cancer treatments. Biomedical Research and Clinical Practice, 2018, 3, .	0.3	2
107	Phytomelatonin content in Valeriana officinalis L. and some related phytotherapeutic supplements. , 0, , .		2
108	Polyamine and Ethylene Metabolisms During Tomato Fruit Ripening. , 1990, , 429-433.		0

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109	Mechanistic Aspects of ACC Oxidation to Ethylene. Current Plant Science and Biotechnology in Agriculture, 1993, , 53-58.	0.0	0