

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110 papers	7,618 citations	48 h-index	86 g-index
117 ext. papers	8,689 ext. citations	5.8 avg, IF	6.28 L-index

#	Paper	IF	Citations
110	Reactive oxygen species and reactive nitrogen species in peroxisomes. Production, scavenging, and role in cell signaling. <i>Plant Physiology</i> , 2006 , 141, 330-5	6.6	475
109	Cellular and subcellular localization of endogenous nitric oxide in young and senescent pea plants. <i>Plant Physiology</i> , 2004 , 136, 2722-33	6.6	334
108	The activated oxygen role of peroxisomes in senescence. <i>Plant Physiology</i> , 1998 , 116, 1195-200	6.6	328
107	Plant proteases, protein degradation, and oxidative stress: role of peroxisomes. <i>Plant Physiology and Biochemistry</i> , 2002 , 40, 521-530	5.4	293
106	Localization of nitric-oxide synthase in plant peroxisomes. <i>Journal of Biological Chemistry</i> , 1999 , 274, 36729-33	5.4	284
105	Metabolism of reactive nitrogen species in pea plants under abiotic stress conditions. <i>Plant and Cell Physiology</i> , 2008 , 49, 1711-22	4.9	254
104	Constitutive arginine-dependent nitric oxide synthase activity in different organs of pea seedlings during plant development. <i>Planta</i> , 2006 , 224, 246-54	4.7	254
103	Nitric oxide imbalance provokes a nitrosative response in plants under abiotic stress. <i>Plant Science</i> , 2011 , 181, 604-11	5.3	237
102	Metabolism of reactive oxygen species and reactive nitrogen species in pepper (<i>Capsicum annuum</i> L.) plants under low temperature stress. <i>Plant, Cell and Environment</i> , 2012 , 35, 281-95	8.4	233
101	Metabolism of oxygen radicals in peroxisomes and cellular implications. <i>Free Radical Biology and Medicine</i> , 1992 , 13, 557-80	7.8	207
100	Evidence supporting the existence of L-arginine-dependent nitric oxide synthase activity in plants. <i>New Phytologist</i> , 2009 , 184, 9-14	9.8	203
99	Arsenic triggers the nitric oxide (NO) and S-nitrosoglutathione (GSNO) metabolism in Arabidopsis. <i>Environmental Pollution</i> , 2012 , 166, 136-43	9.3	160
98	Protein targets of tyrosine nitration in sunflower (<i>Helianthus annuus</i> L.) hypocotyls. <i>Journal of Experimental Botany</i> , 2009 , 60, 4221-34	7	158
97	Protein tyrosine nitration in pea roots during development and senescence. <i>Journal of Experimental Botany</i> , 2013 , 64, 1121-34	7	141
96	Nitric oxide and hydrogen sulfide in plants: which comes first?. <i>Journal of Experimental Botany</i> , 2019 , 70, 4391-4404	7	139
95	Antioxidative enzymes in cultivars of pepper plants with different sensitivity to cadmium. <i>Plant Physiology and Biochemistry</i> , 2002 , 40, 813-820	5.4	137
94	Glutathione reductase from pea leaves: response to abiotic stress and characterization of the peroxisomal isozyme. <i>New Phytologist</i> , 2006 , 170, 43-52	9.8	136

93	Function of S-nitrosoglutathione reductase (GSNOR) in plant development and under biotic/abiotic stress. <i>Plant Signaling and Behavior</i> , 2011 , 6, 789-93	2.5	127
92	Peroxisomal NADP-Dependent Isocitrate Dehydrogenase. Characterization and Activity Regulation during Natural Senescence. <i>Plant Physiology</i> , 1999 , 121, 921-928	6.6	120
91	Plant peroxisomes: A nitro-oxidative cocktail. <i>Redox Biology</i> , 2017 , 11, 535-542	11.3	118
90	Ripening of pepper (<i>Capsicum annuum</i>) fruit is characterized by an enhancement of protein tyrosine nitration. <i>Annals of Botany</i> , 2015 , 116, 637-47	4.1	117
89	Proteomics as an approach to the understanding of the molecular physiology of fruit development and ripening. <i>Journal of Proteomics</i> , 2011 , 74, 1230-43	3.9	115
88	A forty year journey: The generation and roles of NO in plants. <i>Nitric Oxide - Biology and Chemistry</i> , 2019 , 93, 53-70	5	108
87	Cadmium induces senescence symptoms in leaf peroxisomes of pea plants. <i>Plant, Cell and Environment</i> , 2001 , 24, 1065-1073	8.4	102
86	Reactive oxygen species-mediated enzymatic systems involved in the oxidative action of 2,4-dichlorophenoxyacetic acid*. <i>Plant, Cell and Environment</i> , 2004 , 27, 1135-1148	8.4	100
85	Detection and quantification of S-nitrosoglutathione (GSNO) in pepper (<i>Capsicum annuum</i> L.) plant organs by LC-ES/MS. <i>Plant and Cell Physiology</i> , 2011 , 52, 2006-15	4.9	95
84	Peroxisomal xanthine oxidoreductase: characterization of the enzyme from pea (<i>Pisum sativum</i> L.) leaves. <i>Journal of Plant Physiology</i> , 2008 , 165, 1319-30	3.6	95
83	Protein tyrosine nitration in higher plants grown under natural and stress conditions. <i>Frontiers in Plant Science</i> , 2013 , 4, 29	6.2	94
82	Zinc induces distinct changes in the metabolism of reactive oxygen and nitrogen species (ROS and RNS) in the roots of two Brassica species with different sensitivity to zinc stress. <i>Annals of Botany</i> , 2015 , 116, 613-25	4.1	81
81	HS signaling in plants and applications in agriculture. <i>Journal of Advanced Research</i> , 2020 , 24, 131-137	13	78
80	Proteome of plant peroxisomes: new perspectives on the role of these organelles in cell biology. <i>Proteomics</i> , 2009 , 9, 2301-12	4.8	78
79	Peroxisomes as a source of superoxide and hydrogen peroxide in stressed plants. <i>Biochemical Society Transactions</i> , 1996 , 24, 434-8	5.1	77
78	Antioxidative enzymes from chloroplasts, mitochondria, and peroxisomes during leaf senescence of nodulated pea plants. <i>Journal of Experimental Botany</i> , 2006 , 57, 1747-58	7	76
77	Roles for redox regulation in leaf senescence of pea plants grown on different sources of nitrogen nutrition. <i>Journal of Experimental Botany</i> , 2006 , 57, 1735-45	7	74
76	Plant catalases as NO and HS targets. <i>Redox Biology</i> , 2020 , 34, 101525	11.3	70

75	Nitro-oxidative metabolism during fruit ripening. <i>Journal of Experimental Botany</i> , 2018 , 69, 3449-3463	7	67
74	Characterization of the galactono-1,4-lactone dehydrogenase from pepper fruits and its modulation in the ascorbate biosynthesis. Role of nitric oxide. <i>Redox Biology</i> , 2017 , 12, 171-181	11.3	63
73	Antioxidant systems from Pepper (<i>Capsicum annuum</i> L.): involvement in the response to temperature changes in ripe fruits. <i>International Journal of Molecular Sciences</i> , 2013 , 14, 9556-80	6.3	59
72	Endogenous hydrogen sulfide (HS) is up-regulated during sweet pepper (<i>Capsicum annuum</i> L.) fruit ripening. In vitro analysis shows that NADP-dependent isocitrate dehydrogenase (ICDH) activity is inhibited by HS and NO. <i>Nitric Oxide - Biology and Chemistry</i> , 2018 , 81, 36-45	5	58
71	Physiology of pepper fruit and the metabolism of antioxidants: chloroplasts, mitochondria and peroxisomes. <i>Annals of Botany</i> , 2015 , 116, 627-36	4.1	54
70	Arsenate disrupts ion balance, sulfur and nitric oxide metabolisms in roots and leaves of pea (<i>Pisum sativum</i> L.) plants. <i>Environmental and Experimental Botany</i> , 2019 , 161, 143-156	5.9	52
69	S-nitrosoglutathione reductase (GSNOR) activity is down-regulated during pepper (<i>Capsicum annuum</i> L.) fruit ripening. <i>Nitric Oxide - Biology and Chemistry</i> , 2017 , 68, 51-55	5	51
68	Glyphosate-induced oxidative stress in <i>Arabidopsis thaliana</i> affecting peroxisomal metabolism and triggers activity in the oxidative phase of the pentose phosphate pathway (OxPPP) involved in NADPH generation. <i>Journal of Plant Physiology</i> , 2017 , 218, 196-205	3.6	51
67	NADP-dehydrogenases from pepper fruits: effect of maturation. <i>Physiologia Plantarum</i> , 2009 , 135, 130-46	4.6	51
66	Nitric oxide-dependent regulation of sweet pepper fruit ripening. <i>Journal of Experimental Botany</i> , 2019 , 70, 4557-4570	7	49
65	Nitric oxide on/off in fruit ripening. <i>Plant Biology</i> , 2018 , 20, 805-807	3.7	49
64	Hydrogen sulfide: A novel component in <i>Arabidopsis</i> peroxisomes which triggers catalase inhibition. <i>Journal of Integrative Plant Biology</i> , 2019 , 61, 871-883	8.3	48
63	Regulating the regulator: nitric oxide control of post-translational modifications. <i>New Phytologist</i> , 2020 , 227, 1319-1325	9.8	48
62	Inhibition of peroxisomal hydroxypyruvate reductase (HPR1) by tyrosine nitration. <i>Biochimica Et Biophysica Acta - General Subjects</i> , 2013 , 1830, 4981-9	4	48
61	NADP-dependent isocitrate dehydrogenase from <i>Arabidopsis</i> roots contributes in the mechanism of defence against the nitro-oxidative stress induced by salinity. <i>Scientific World Journal, The</i> , 2012 , 2012, 694740	2.2	46
60	Arsenic-induced stress activates sulfur metabolism in different organs of garlic (<i>Allium sativum</i> L.) plants accompanied by a general decline of the NADPH-generating systems in roots. <i>Journal of Plant Physiology</i> , 2017 , 211, 27-35	3.6	44
59	Modulation of superoxide dismutase (SOD) isozymes by organ development and high long-term salinity in the halophyte <i>Cakile maritima</i> . <i>Protoplasma</i> , 2016 , 253, 885-894	3.4	42
58	Influence of fruit ripening stage and harvest period on the antioxidant content of sweet pepper cultivars. <i>Plant Foods for Human Nutrition</i> , 2011 , 66, 416-23	3.9	41

57	Plant peroxisomes at the crossroad of NO and H ₂ O metabolism. <i>Journal of Integrative Plant Biology</i> , 2019 , 61, 803-816	8.3	40
56	Spatial and temporal regulation of the metabolism of reactive oxygen and nitrogen species during the early development of pepper (<i>Capsicum annuum</i>) seedlings. <i>Annals of Botany</i> , 2015 , 116, 679-93	4.1	39
55	Blood antioxidant defenses and hematological adjustments in crowded/uncrowded rainbow trout (<i>Oncorhynchus mykiss</i>) fed on diets with different levels of antioxidant vitamins and HUFA. <i>Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology</i> , 2009 , 149, 440-7	3.2	39
54	Peroxisomal NADP-isocitrate dehydrogenase is required for Arabidopsis stomatal movement. <i>Protoplasma</i> , 2016 , 253, 403-15	3.4	38
53	Recommendations on terminology and experimental best practice associated with plant nitric oxide research. <i>New Phytologist</i> , 2020 , 225, 1828-1834	9.8	38
52	Peroxisomal manganese superoxide dismutase: Purification and properties of the isozyme from pea leaves. <i>Physiologia Plantarum</i> , 1998 , 104, 720-726	4.6	37
51	Nitric oxide in the physiology and quality of fleshy fruits. <i>Journal of Experimental Botany</i> , 2019 , 70, 4405-4417	7.4	36
50	Growth, yield, and fruit quality of pepper plants amended with two sanitized sewage sludges. <i>Journal of Agricultural and Food Chemistry</i> , 2010 , 58, 6951-9	5.7	36
49	NADPH Oxidase (Rboh) Activity is Up Regulated during Sweet Pepper (L.) Fruit Ripening. <i>Antioxidants</i> , 2019 , 8,	7.1	34
48	Plant Peroxisomes: A Factory of Reactive Species. <i>Frontiers in Plant Science</i> , 2020 , 11, 853	6.2	32
47	Sweet Pepper (L.) Fruits Contain an Atypical Peroxisomal Catalase That is Modulated by Reactive Oxygen and Nitrogen Species. <i>Antioxidants</i> , 2019 , 8,	7.1	31
46	Peroxisomal membrane manganese superoxide dismutase: characterization of the isozyme from watermelon (<i>Citrullus lanatus</i> Schrad.) cotyledons. <i>Journal of Experimental Botany</i> , 2007 , 58, 2417-27	7	31
45	Heavy Metal Stress in Plants 2013 ,		27
44	Assessing Nitric Oxide (NO) in Higher Plants: An Outline. <i>Nitrogen</i> , 2018 , 1, 3	1.8	26
43	Arbuscular mycorrhizal fungi alleviate oxidative stress induced by ADOR and enhance antioxidant responses of tomato plants. <i>Journal of Plant Physiology</i> , 2014 , 171, 421-8	3.6	26
42	Cytosolic NADP-isocitrate dehydrogenase in Arabidopsis leaves and roots. <i>Biologia Plantarum</i> , 2012 , 56, 705-710	2.1	26
41	Impact of Nitric Oxide (NO) on the ROS Metabolism of Peroxisomes. <i>Plants</i> , 2019 , 8,	4.5	25
40	Reactive Oxygen Species and Oxidative Damage in Plants Under Stress 2015 ,		25

39	Mechanical wounding promotes local and long distance response in the halophyte <i>Cakile maritima</i> through the involvement of the ROS and RNS metabolism. <i>Nitric Oxide - Biology and Chemistry</i> , 2018 , 74, 93-101	5	25
38	Superoxide Radical Metabolism in Sweet Pepper (<i>L.</i>) Fruits Is Regulated by Ripening and by a NO-Enriched Environment. <i>Frontiers in Plant Science</i> , 2020 , 11, 485	6.2	24
37	Plant Superoxide Dismutases: Function Under Abiotic Stress Conditions 2018 , 1-26		22
36	Role of peroxisomes in the oxidative injury induced by 2,4-dichlorophenoxyacetic acid in leaves of pea plants. <i>Biologia Plantarum</i> , 2011 , 55, 485-492	2.1	22
35	Nitric oxide and hydrogen sulfide modulate the NADPH-generating enzymatic system in higher plants. <i>Journal of Experimental Botany</i> , 2021 , 72, 830-847	7	22
34	Inhibition of NADP-malic enzyme activity by H ₂ S and NO in sweet pepper (<i>Capsicum annuum</i> L.) fruits. <i>Physiologia Plantarum</i> , 2020 , 168, 278-288	4.6	21
33	Proteomic identification of mitochondrial carbonylated proteins in two maturation stages of pepper fruits. <i>Proteomics</i> , 2015 , 15, 2634-42	4.8	21
32	Multifaceted roles of nitric oxide in tomato fruit ripening: NO-induced metabolic rewiring and consequences for fruit quality traits. <i>Journal of Experimental Botany</i> , 2021 , 72, 941-958	7	21
31	Appraisal of HS metabolism in <i>Arabidopsis thaliana</i> : In silico analysis at the subcellular level. <i>Plant Physiology and Biochemistry</i> , 2020 , 155, 579-588	5.4	19
30	Production Sites of Reactive Oxygen Species (ROS) in Organelles from Plant Cells 2015 , 1-22		16
29	Function of Nitric Oxide Under Environmental Stress Conditions 2012 , 99-113		16
28	NADPH as a quality footprinting in horticultural crops marketability. <i>Trends in Food Science and Technology</i> , 2020 , 103, 152-161	15.3	16
27	The Proteome of Fruit Peroxisomes: Sweet Pepper (<i>Capsicum annuum</i> L.) as a Model. <i>Sub-Cellular Biochemistry</i> , 2018 , 89, 323-341	5.5	16
26	Nitric oxide: A radical molecule with potential biotechnological applications in fruit ripening. <i>Journal of Biotechnology</i> , 2020 , 324, 211-219	3.7	15
25	Reactive Oxygen Species (ROS) Metabolism and Nitric Oxide (NO) Content in Roots and Shoots of Rice (<i>Oryza sativa</i> L.) Plants under Arsenic-Induced Stress. <i>Agronomy</i> , 2020 , 10, 1014	3.6	14
24	Immunological evidence for the presence of peroxiredoxin in pea leaf peroxisomes and response to oxidative stress conditions. <i>Acta Physiologiae Plantarum</i> , 2017 , 39, 1	2.6	10
23	Loss of function of the chloroplast membrane K/H antiporters AtKEA1 and AtKEA2 alters the ROS and NO metabolism but promotes drought stress resilience. <i>Plant Physiology and Biochemistry</i> , 2021 , 160, 106-119	5.4	10
22	Redox State as a Central Regulator of Plant-Cell Stress Responses 2016 ,		10

21	Antioxidant Profile of Pepper (L.) Fruits Containing Diverse Levels of Capsaicinoids. <i>Antioxidants</i> , 2020 , 9,	7.1	8
20	A Simple and Useful Method to Apply Exogenous NO Gas to Plant Systems: Bell Pepper Fruits as a Model. <i>Methods in Molecular Biology</i> , 2018 , 1747, 3-11	1.4	7
19	Organ-specific effects of the auxin herbicide 2,4-D on the oxidative stress and senescence-related parameters of the stems of pea plants. <i>Acta Physiologiae Plantarum</i> , 2011 , 33, 2239-2247	2.6	7
18	Metalloenzymes Involved in the Metabolism of Reactive Oxygen Species and Heavy Metal Stress 2013 , 1-17		6
17	NO source in higher plants: present and future of an unresolved question. <i>Trends in Plant Science</i> , 2021 ,	13.1	5
16	Influence of metallic, metallic oxide, and organic nanoparticles on plant physiology.. <i>Chemosphere</i> , 2021 , 290, 133329	8.4	5
15	Identification of Compounds with Potential Therapeutic Uses from Sweet Pepper (L.) Fruits and Their Modulation by Nitric Oxide (NO). <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	5
14	Nitric Oxide (NO) Differentially Modulates the Ascorbate Peroxidase (APX) Isozymes of Sweet Pepper (L.) Fruits.. <i>Antioxidants</i> , 2022 , 11,	7.1	5
13	Pomegranate (Punica granatum L.) Fruits: Characterization of the Main Enzymatic Antioxidants (Peroxisomal Catalase and SOD Isozymes) and the NADPH-Regenerating System. <i>Agronomy</i> , 2019 , 9, 338	3.6	4
12	Function of Peroxisomes as a Cellular Source of Nitric Oxide and Other Reactive Nitrogen Species 2014 , 33-55		4
11	Alperujo Compost Improves the Ascorbate (Vitamin C) Content in Pepper (Capsicum annuum L.) Fruits and Influences Their Oxidative Metabolism. <i>Agronomy</i> , 2018 , 8, 82	3.6	3
10	Potassium (K) Starvation-Induced Oxidative Stress Triggers a General Boost of Antioxidant and NADPH-Generating Systems in the Halophyte .. <i>Antioxidants</i> , 2022 , 11,	7.1	3
9	Thiol-Based Oxidative Posttranslational Modifications (oxiPTMs) of Plant Proteins.. <i>Plant and Cell Physiology</i> , 2022 ,	4.9	3
8	Nitric Oxide and Abiotic Stress in Higher Plants51-63		2
7	The of Hydrogen Sulfide(HS)-Dependent Protein Persulfidation in Higher Plants. <i>Antioxidants</i> , 2021 , 10,	7.1	2
6	Detection of Protein -nitrosothiols (SNOs) in Plant Samples on Diaminofluorescein (DAF) Gels. <i>Bio-protocol</i> , 2017 , 7, e2559	0.9	2
5	Nitric Oxide (NO) Scaffolds the Peroxisomal Protein-Protein Interaction Network in Higher Plants. <i>International Journal of Molecular Sciences</i> , 2021 , 22,	6.3	2
4	Nitric oxide-releasing nanomaterials: from basic research to potential biotechnological applications in agriculture.. <i>New Phytologist</i> , 2022 ,	9.8	2

- 3 Separation of Plant 6-Phosphogluconate Dehydrogenase (6PGDH) Isoforms by Non-denaturing Gel Electrophoresis. *Bio-protocol*, **2017**, 7, e2399 0.9 1
- 2 H₂S in Horticultural Plants: Endogenous Detection by an Electrochemical Sensor, Emission by a Gas Detector, and Its Correlation with L-Cysteine Desulfhydrase (LCD) Activity. *International Journal of Molecular Sciences*, **2022**, 23, 5648 6.3 0
- 1 Transcriptomic Profiling of Fruits from Pepper (*Capsicum annuum* L.), Variety Padr  (Mild Hot), at Two Ripening States. *Biology and Life Sciences Forum*, **2021**, 3, 16