

Christophe Bailly

List of Publications by Year in descending order

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73
papers

7,395
citations

76326

40
h-index

79698

73
g-index

75
all docs

75
docs citations

75
times ranked

5079
citing authors

#	ARTICLE	IF	CITATIONS
1	Active oxygen species and antioxidants in seed biology. <i>Seed Science Research</i> , 2004, 14, 93-107.	1.7	858
2	From intracellular signaling networks to cell death: the dual role of reactive oxygen species in seed physiology. <i>Comptes Rendus - Biologies</i> , 2008, 331, 806-814.	0.2	675
3	ROS production and protein oxidation as a novel mechanism for seed dormancy alleviation. <i>Plant Journal</i> , 2007, 50, 452-465.	5.7	407
4	Changes in malondialdehyde content and in superoxide dismutase, catalase and glutathione reductase activities in sunflower seeds as related to deterioration during accelerated aging. <i>Physiologia Plantarum</i> , 1996, 97, 104-110.	5.2	399
5	Oxidative signaling in seed germination and dormancy. <i>Plant Signaling and Behavior</i> , 2008, 3, 175-182.	2.4	318
6	The Mechanisms Involved in Seed Dormancy Alleviation by Hydrogen Cyanide Unravel the Role of Reactive Oxygen Species as Key Factors of Cellular Signaling during Germination Å. <i>Plant Physiology</i> , 2009, 150, 494-505.	4.8	256
7	Ethylene, a key factor in the regulation of seed dormancy. <i>Frontiers in Plant Science</i> , 2014, 5, 539.	3.6	241
8	Role of Reactive Oxygen Species in the Regulation of Arabidopsis Seed Dormancy. <i>Plant and Cell Physiology</i> , 2012, 53, 96-106.	3.1	238
9	Changes in malondialdehyde content and in superoxide dismutase, catalase and glutathione reductase activities in sunflower seeds as related to deterioration during accelerated aging. <i>Physiologia Plantarum</i> , 1996, 97, 104-110.	5.2	232
10	The signalling role of ROS in the regulation of seed germination and dormancy. <i>Biochemical Journal</i> , 2019, 476, 3019-3032.	3.7	204
11	Targeted mRNA Oxidation Regulates Sunflower Seed Dormancy Alleviation during Dry After-Ripening Å. <i>Plant Cell</i> , 2011, 23, 2196-2208.	6.6	180
12	Changes in oligosaccharide content and antioxidant enzyme activities in developing bean seeds as related to acquisition of drying tolerance and seed quality. <i>Journal of Experimental Botany</i> , 2001, 52, 701-708.	4.8	174
13	Sunflower seed deterioration as related to moisture content during ageing, energy metabolism and active oxygen species scavenging. <i>Physiologia Plantarum</i> , 2006, 128, 496-506.	5.2	169
14	Crosstalk between reactive oxygen species and hormonal signalling pathways regulates grain dormancy in barley. <i>Plant, Cell and Environment</i> , 2011, 34, 980-993.	5.7	163
15	Catalase is a key enzyme in seed recovery from ageing during priming. <i>Plant Science</i> , 2011, 181, 309-315.	3.6	161
16	Antioxidant systems in sunflower (<i>Helianthus annuus</i> L.) seeds as affected by priming. <i>Seed Science Research</i> , 2000, 10, 35-42.	1.7	139
17	Role of protein and mRNA oxidation in seed dormancy and germination. <i>Frontiers in Plant Science</i> , 2013, 4, 77.	3.6	136
18	Changes in activities of antioxidant enzymes and lipoxygenase during growth of sunflower seedlings from seeds of different vigour. <i>Seed Science Research</i> , 2002, 12, 47-55.	1.7	126

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19	Reactive oxygen species, abscisic acid and ethylene interact to regulate sunflower seed germination. <i>Plant, Cell and Environment</i> , 2015, 38, 364-374.	5.7	125
20	Free radical scavenging as affected by accelerated ageing and subsequent priming in sunflower seeds. <i>Physiologia Plantarum</i> , 1998, 104, 646-652.	5.2	121
21	Changes in soluble carbohydrates, lipid peroxidation and antioxidant enzyme activities in the embryo during ageing in wheat grains. <i>Journal of Cereal Science</i> , 2008, 47, 555-565.	3.7	116
22	NADPH oxidase-dependent H ₂ O ₂ production is required for salt-induced antioxidant defense in <i>Arabidopsis thaliana</i> . <i>Journal of Plant Physiology</i> , 2015, 174, 5-15.	3.5	112
23	An Endosperm-Associated Cuticle Is Required for <i>Arabidopsis</i> Seed Viability, Dormancy and Early Control of Germination. <i>PLoS Genetics</i> , 2015, 11, e1005708.	3.5	105
24	Catalase activity and expression in developing sunflower seeds as related to drying. <i>Journal of Experimental Botany</i> , 2004, 55, 475-483.	4.8	104
25	Release of sunflower seed dormancy by cyanide: cross-talk with ethylene signalling pathway. <i>Journal of Experimental Botany</i> , 2008, 59, 2241-2251.	4.8	97
26	Extracellular superoxide production, viability and redox poise in response to desiccation in recalcitrant <i>Castanea sativa</i> seeds. <i>Plant, Cell and Environment</i> , 2009, 33, 59-75.	5.7	87
27	DNA alteration and programmed cell death during ageing of sunflower seed. <i>Journal of Experimental Botany</i> , 2011, 62, 5003-5011.	4.8	86
28	Role of relative humidity, temperature, and water status in dormancy alleviation of sunflower seeds during dry after-ripening. <i>Journal of Experimental Botany</i> , 2011, 62, 627-640.	4.8	76
29	Induction of Oxidative Stress by Sunflower Phytotoxins in Germinating Mustard Seeds. <i>Journal of Chemical Ecology</i> , 2007, 33, 251-264.	1.8	75
30	Wheat seedlings as a model to understand desiccation tolerance and sensitivity. <i>Physiologia Plantarum</i> , 2004, 120, 563-574.	5.2	67
31	Analyses of Reactive Oxygen Species and Antioxidants in Relation to Seed Longevity and Germination. <i>Methods in Molecular Biology</i> , 2011, 773, 343-367.	0.9	66
32	Fluctuation of <i>Arabidopsis</i> seed dormancy with relative humidity and temperature during dry storage. <i>Journal of Experimental Botany</i> , 2016, 67, 119-130.	4.8	65
33	Inhibition of germination of dormant barley (<i>Hordeum vulgare</i>) grains by blue light as related to oxygen and hormonal regulation. <i>Plant, Cell and Environment</i> , 2014, 37, 1393-1403.	5.7	58
34	Glutathione redox state, tocopherols, fatty acids, antioxidant enzymes and protein carbonylation in sunflower seed embryos associated with after-ripening and ageing. <i>Annals of Botany</i> , 2015, 116, 669-678.	2.9	58
35	The Significance of Hydrogen Sulfide for <i>Arabidopsis</i> Seed Germination. <i>Frontiers in Plant Science</i> , 2016, 7, 930.	3.6	58
36	<i>Arabidopsis</i> S2Lb links AtCOMPASS-like and SDG2 activity in H3K4me3 independently from histone H2B monoubiquitination. <i>Genome Biology</i> , 2019, 20, 100.	8.8	56

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37	Changes in wheat seed germination ability, soluble carbohydrate and antioxidant enzyme activities in the embryo during the desiccation phase of maturation. <i>Journal of Cereal Science</i> , 2006, 43, 175-182.	3.7	55
38	Osmoconditioning reduces physiological and biochemical damage induced by chilling in soybean seeds. <i>Physiologia Plantarum</i> , 2001, 111, 473-482.	5.2	49
39	Germination Potential of Dormant and Nondormant Arabidopsis Seeds Is Driven by Distinct Recruitment of Messenger RNAs to Polysomes. <i>Plant Physiology</i> , 2015, 168, 1049-1065.	4.8	49
40	5â€² to 3â€² mRNA Decay Contributes to the Regulation of Arabidopsis Seed Germination by Dormancy. <i>Plant Physiology</i> , 2017, 173, 1709-1723.	4.8	46
41	Is Gene Transcription Involved in Seed Dry After-Ripening?. <i>PLoS ONE</i> , 2014, 9, e86442.	2.5	38
42	Translatome profiling in dormant and nondormant sunflower (<i>Helianthus annuus</i>) seeds highlights postâ€transcriptional regulation of germination. <i>New Phytologist</i> , 2014, 204, 864-872.	7.3	36
43	Organization of lipid reserves in cotyledons of primed and aged sunflower seeds. <i>Planta</i> , 2005, 222, 397-407.	3.2	35
44	Retrograde signalling from the mitochondria to the nucleus translates the positive effect of ethylene on dormancy breaking of <i>Arabidopsis thaliana</i> seeds. <i>New Phytologist</i> , 2021, 229, 2192-2205.	7.3	34
45	Integrating proteomics and enzymatic profiling to decipher seed metabolism affected by temperature in seed dormancy and germination. <i>Plant Science</i> , 2018, 269, 118-125.	3.6	33
46	Awake1, an ABC-Type Transporter, Reveals an Essential Role for Suberin in the Control of Seed Dormancy. <i>Plant Physiology</i> , 2017, 174, 276-283.	4.8	32
47	Chilling temperature remodels phospholipidome of Zea mays seeds during imbibition. <i>Scientific Reports</i> , 2017, 7, 8886.	3.3	31
48	The <i>MPK8</i> <i>TCP14</i> pathway promotes seed germination in Arabidopsis. <i>Plant Journal</i> , 2019, 100, 677-692.	5.7	29
49	ROS Signaling in Seed Dormancy Alleviation. <i>Plant Signaling and Behavior</i> , 2007, 2, 362-364.	2.4	26
50	Induction of secondary dormancy by hypoxia in barley grains and its hormonal regulation. <i>Journal of Experimental Botany</i> , 2013, 64, 2017-2025.	4.8	26
51	The effects of abscisic acid and methyl jasmonate on 1-aminocyclopropane 1-carboxylic acid conversion to ethylene in hypocotyl segments of sunflower seedlings, and their control by calcium and calmodulin. <i>Plant Growth Regulation</i> , 1992, 11, 349-355.	3.4	22
52	Oxidative signalling in seed germination and early seedling growth: an emerging role for ROS trafficking and inter-organelle communication. <i>Biochemical Journal</i> , 2021, 478, 1977-1984.	3.7	21
53	Changes in Lipid Status and Glass Properties in Cotyledons of Developing Sunflower Seeds. <i>Plant and Cell Physiology</i> , 2006, 47, 818-828.	3.1	20
54	Handing off iron to the next generation: how does it get into seeds and what for?. <i>Biochemical Journal</i> , 2020, 477, 259-274.	3.7	20

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55	Revisiting the Role of Ethylene and N-End Rule Pathway on Chilling-Induced Dormancy Release in Arabidopsis Seeds. <i>International Journal of Molecular Sciences</i> , 2018, 19, 3577.	4.1	18
56	Intracellular reactive oxygen species trafficking participates in seed dormancy alleviation in Arabidopsis seeds. <i>New Phytologist</i> , 2022, 234, 850-866.	7.3	16
57	Water content: a key factor of the induction of secondary dormancy in barley grains as related to <scp>ABA</scp> metabolism. <i>Physiologia Plantarum</i> , 2013, 148, 284-296.	5.2	15
58	One Way to Achieve Germination: Common Molecular Mechanism Induced by Ethylene and After-Ripening in Sunflower Seeds. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2464.	4.1	15
59	Re-localization of hormone effectors is associated with dormancy alleviation by temperature and after-ripening in sunflower seeds. <i>Scientific Reports</i> , 2019, 9, 4861.	3.3	14
60	A multiscale approach reveals regulatory players of water stress responses in seeds during germination. <i>Plant, Cell and Environment</i> , 2020, 43, 1300-1313.	5.7	14
61	Regulatory actors and alternative routes for Arabidopsis seed germination are revealed using a pathway-based analysis of transcriptomic datasets. <i>Plant Journal</i> , 2019, 99, 163-175.	5.7	13
62	Effects of agroclimatic conditions on sunflower seed dormancy at harvest. <i>European Journal of Agronomy</i> , 2021, 124, 126209.	4.1	13
63	Microtubule self-organisation during seed germination in Arabidopsis. <i>BMC Biology</i> , 2020, 18, 44.	3.8	10
64	A Correlative Study of Sunflower Seed Vigor Components as Related to Genetic Background. <i>Plants</i> , 2020, 9, 386.	3.5	9
65	The Histone Chaperone HIRA Is a Positive Regulator of Seed Germination. <i>International Journal of Molecular Sciences</i> , 2021, 22, 4031.	4.1	9
66	Determination of Protein Carbonylation and Proteasome Activity in Seeds. <i>Methods in Molecular Biology</i> , 2016, 1450, 205-212.	0.9	7
67	Role of ethylene and proteolytic N-ubiquitin pathway in the regulation of <i>Arabidopsis</i> seed dormancy. <i>Journal of Integrative Plant Biology</i> , 2021, 63, 2110-2122.	8.5	7
68	A New Role for Plastid Thioredoxins in Seed Physiology in Relation to Hormone Regulation. <i>International Journal of Molecular Sciences</i> , 2021, 22, 10395.	4.1	7
69	Maternal drought stress induces abiotic stress tolerance to the progeny at the germination stage in sunflower. <i>Environmental and Experimental Botany</i> , 2022, , 104939.	4.2	7
70	Are Methionine Sulfoxide-Containing Proteins Related to Seed Longevity? A Case Study of Arabidopsis thaliana Dry Mature Seeds Using Cyanogen Bromide Attack and Two-Dimensional-Diagonal Electrophoresis. <i>Plants</i> , 2022, 11, 569.	3.5	2
71	In-Depth Proteomic Analysis of the Secondary Dormancy Induction by Hypoxia or High Temperature in Barley Grains. <i>Plant and Cell Physiology</i> , 2022, , .	3.1	1
72	Dynamics of Protein Phosphorylation during Arabidopsis Seed Germination. <i>International Journal of Molecular Sciences</i> , 2022, 23, 7059.	4.1	1

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73	Physiological and Environmental Regulation of Seed Germination: From Signaling Events to Molecular Responses. International Journal of Molecular Sciences, 2022, 23, 4839.	4.1	0