Yves Poirier

List of Publications by Year
in descending order

76 papers	8,539 citations	66343 42 h-index	76900 74 g-index
80 all docs	80 docs citations	80 times ranked	7204 citing authors

#	Article	IF	Citations
1	Identification and Characterization of the Arabidopsis PHO1 Gene Involved in Phosphate Loading to the Xylem. Plant Cell, 2002, 14, 889-902.	6.6	502
2	Control of eukaryotic phosphate homeostasis by inositol polyphosphate sensor domains. Science, 2016, 352, 986-990.	12.6	438
3	Peroxisomal Î²-oxidationâ€"A metabolic pathway with multiple functions. Biochimica Et Biophysica Acta - Molecular Cell Research, 2006, 1763, 1413-1426.	4.1	432
4	Mutant of <i>Arabidopsis</i> Deficient in Xylem Loading of Phosphate. Plant Physiology, 1991, 97, 1087-1093.	4.8	417
5	Polyhydroxybutyrate, a Biodegradable Thermoplastic, Produced in Transgenic Plants. Science, 1992, 256, 520-523.	12.6	390
6	Production of Polyhydroxyalkanoates, a Family of Biodegradable Plastics and Elastomers, in Bacteria and Plants. Nature Biotechnology, 1995, 13, 142-150.	17.5	342
7	Regulation of Phosphate Starvation Responses in Plants: Signaling Players and Cross-Talks. Molecular Plant, 2010, 3, 288-299.	8.3	334
8	Spatio-Temporal Transcript Profiling of Rice Roots and Shoots in Response to Phosphate Starvation and Recovery Â. Plant Cell, 2013, 25, 4285-4304.	6.6	295
9	Dissection of local and systemic transcriptional responses to phosphate starvation in Arabidopsis. Plant Journal, 2010, 64, 775-789.	5.7	293
10	Establishment of new crops for the production of natural rubber. Trends in Biotechnology, 2007, 25, 522-529.	9.3	277
11	The emerging importance of the SPX domainâ€containing proteins in phosphate homeostasis. New Phytologist, 2012, 193, 842-851.	7.3	269
12	Phosphate Transport and Homeostasis in Arabidopsis. The Arabidopsis Book, 2002, 1, e0024.	0.5	218
13	A Rice <i>cis</i>-Natural Antisense RNA Acts as a Translational Enhancer for Its Cognate mRNA and Contributes to Phosphate Homeostasis and Plant Fitness. Plant Cell, 2013, 25, 4166-4182.	6.6	207
14	Structure and Expression Profile of the Arabidopsis PHO1 Gene Family Indicates a Broad Role in Inorganic Phosphate Homeostasis. Plant Physiology, 2004, 135, 400-411.	4.8	201
15	Characterization of the Rice <i>PHO1</i> Gene Family Reveals a Key Role for <i>OsPHO1;2</i> in Phosphate Homeostasis and the Evolution of a Distinct Clade in Dicotyledons. Plant Physiology, 2010, 152, 1693-1704.	4.8	189
16	Transgenic Arabidopsis plants can accumulate polyhydroxybutyrate to up to 4% of their fresh weight. Planta, 2000, 211, 841-845.	3.2	183
17	Coordination between zinc and phosphate homeostasis involves the transcription factor PHR1, the phosphate exporter PHO1, and its homologue PHO1;H3 in Arabidopsis. Journal of Experimental Botany, 2014, 65, 871-884.	4.8	174
18	Members of the PHO1 gene family show limited functional redundancy in phosphate transfer to the shoot, and are regulated by phosphate deficiency via distinct pathways. Plant Journal, 2007, 50, 982-994.	5.7	172

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19	Î²-Oxidation in fatty acid degradation and beyond. Current Opinion in Plant Biology, 2007, 10, 245-251.	7.1	155
20	Guayule and Russian Dandelion as Alternative Sources of Natural Rubber. Critical Reviews in Biotechnology, 2007, 27, 217-231.	9.0	146
21	Production of renewable polymers from crop plants. Plant Journal, 2008, 54, 684-701.	5.7	141
22	Phosphate Deficiency Induces the Jasmonate Pathway and Enhances Resistance to Insect Herbivory. Plant Physiology, 2016, 171, 632-644.	4.8	138
23	Uncoupling phosphate deficiency from its major effects on growth and transcriptome via PHO1 expression in Arabidopsis. Plant Journal, 2011, 65, 557-570.	5.7	130
24	Functional expression of PHO1 to the Golgi and <i>trans</i>â€Golgi network and its role in export of inorganic phosphate. Plant Journal, 2012, 71, 479-491.	5.7	125
25	Induction of the Arabidopsis <i>PHO1;H10</i> Gene by 12-Oxo-Phytodienoic Acid But Not Jasmonic Acid via a CORONATINE INSENSITIVE1-Dependent Pathway. Plant Physiology, 2008, 147, 696-706.	4.8	124
26	The EXS Domain of PHO1 Participates in the Response of Shoots to Phosphate Deficiency via a Root-to-Shoot Signal. Plant Physiology, 2016, 170, 385-400.	4.8	116
27	The transcription factor PHR1 plays a key role in the regulation of sulfate shoot-to-root flux upon phosphate starvation in Arabidopsis. BMC Plant Biology, 2011, 11, 19.	3.6	112
28	Phosphate and zinc transport and signalling in plants: toward a better understanding of their homeostasis interaction. Journal of Experimental Botany, 2014, 65, 5725-5741.	4.8	109
29	Increased Flow of Fatty Acids toward Î²-Oxidation in Developing Seeds of Arabidopsis Deficient in Diacylglycerol Acyltransferase Activity or Synthesizing Medium-Chain-Length Fatty Acids. Plant Physiology, 1999, 121, 1359-1366.	4.8	103
30	Control of plant phosphate homeostasis by inositol pyrophosphates and the SPX domain. Current Opinion in Biotechnology, 2018, 49, 156-162.	6.6	101
31	Overâ€expression of PHO1 in Arabidopsis leaves reveals its role in mediating phosphate efflux. Plant Journal, 2011, 66, 689-699.	5.7	95
32	Polyhydroxyalknoate synthesis in plants as a tool for biotechnology and basic studies of lipid metabolism. Progress in Lipid Research, 2002, 41, 131-155.	11.6	88
33	Synthesis of Polyhydroxyalkanoate in the Peroxisome of Saccharomyces cerevisiae by Using Intermediates of Fatty Acid Î²-Oxidation. Applied and Environmental Microbiology, 2001, 67, 5254-5260.	3.1	84
34	The protein acetylome and the regulation of metabolism. Trends in Plant Science, 2012, 17, 423-430.	8.8	81
35	Synthesis of polyhydroxyalkanoate in the peroxisome ofPichia pastoris. FEMS Microbiology Letters, 2002, 207, 97-102.	1.8	72
36	Disruption of <i>Os<scp>SULTR</scp>3;3</i> reduces phytate and phosphorus concentrations and alters the metabolite profile in rice grains. New Phytologist, 2016, 211, 926-939.	7.3	72

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37	Production of new polymeric compounds in plants. Current Opinion in Biotechnology, 1999, 10, 181-185.	6.6	69
38	Expression analyses of three members of the AtPHO1 family reveal differential interactions between signaling pathways involved in phosphate deficiency and the responses to auxin, cytokinin, and abscisic acid. Planta, 2008, 227, 1025-1036.	3.2	69
39	Polyhydroxyalkanoate synthesis in transgenic plants as a new tool to study carbon flow through beta-oxidation. Plant Journal, 1999, 20, 45-55.	5.7	64
40	Impact of Unusual Fatty Acid Synthesis on Futile Cycling through Î²-Oxidation and on Gene Expression in Transgenic Plants Â. Plant Physiology, 2004, 134, 432-442.	4.8	55
41	Roles of multiple acyl-CoA oxidases in the routing of carbon flow towards Î²-oxidation and polyhydroxyalkanoate biosynthesis in Yarrowia lipolytica. FEMS Yeast Research, 2010, 10, 917-927.	2.3	55
42	Perspectives on the production of polyhydroxyalkanoates in plants. FEMS Microbiology Letters, 1992, 103, 237-246.	1.8	49
43	Characterization of the <i>PHO1</i> Gene Family and the Responses to Phosphate Deficiency of <i>Physcomitrella patens</i>. Plant Physiology, 2008, 146, 646-656.	4.8	48
44	Molecular Identification and Characterization of the Arabidopsis Î”3,5,Î”2,4-Dienoyl-Coenzyme A Isomerase, a Peroxisomal Enzyme Participating in the Î²-Oxidation Cycle of Unsaturated Fatty Acids. Plant Physiology, 2005, 138, 1947-1956.	4.8	42
45	Characterization of a protein of the plastid inner envelope having homology to animal inorganic phosphate, chloride and organic-anion transporters. Planta, 2004, 218, 406-416.	3.2	41
46	Control of Cognate Sense mRNA Translation by cis-Natural Antisense RNAs. Plant Physiology, 2019, 180, 305-322.	4.8	41
47	Futile Cycling of Intermediates of Fatty Acid Biosynthesis toward Peroxisomal Î²-Oxidation in Saccharomyces cerevisiae. Journal of Biological Chemistry, 2003, 278, 32596-32601.	3.4	40
48	Peroxisomal polyhydroxyalkanoate biosynthesis is a promising strategy for bioplastic production in high biomass crops. Plant Biotechnology Journal, 2011, 9, 958-969.	8.3	39
49	<i>PHO1</i> expression in guard cells mediates the stomatal response to abscisic acid in Arabidopsis. Plant Journal, 2012, 72, 199-211.	5.7	37
50	Analysis of the Alternative Pathways for the Î²-Oxidation of Unsaturated Fatty Acids Using Transgenic Plants Synthesizing Polyhydroxyalkanoates in Peroxisomes. Plant Physiology, 2000, 124, 1159-1168.	4.8	36
51	Characterization of the Aspergillus nidulans biotin biosynthetic gene cluster and use of the bioDA gene as a new transformation marker. Fungal Genetics and Biology, 2011, 48, 208-215.	2.1	33
52	<scp>ATP</scp> citrate lyase activity is postâ€translationally regulated by sink strength and impacts the wax, cutin and rubber biosynthetic pathways. Plant Journal, 2014, 79, 270-284.	5.7	33
53	Identification and Functional Characterization of a Monofunctional Peroxisomal Enoyl-CoA Hydratase 2 That Participates in the Degradation of Even cis-Unsaturated Fatty Acids in Arabidopsis thaliana. Journal of Biological Chemistry, 2006, 281, 35894-35903.	3.4	32
54	Contributions of the Peroxisome and Î²-Oxidation Cycle to Biotin Synthesis in Fungi. Journal of Biological Chemistry, 2011, 286, 42133-42140.	3.4	32

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55	The Peroxisomal Acyl-CoA Thioesterase Pte1p from Saccharomyces cerevisiae Is Required for Efficient Degradation of Short Straight Chain and Branched Chain Fatty Acids. Journal of Biological Chemistry, 2006, 281, 11729-11735.	3.4	31
56	PHO1 Exports Phosphate from the Chalazal Seed Coat to the Embryo in Developing Arabidopsis Seeds. Current Biology, 2017, 27, 2893-2900.e3.	3.9	31
57	Phosphate acquisition and metabolism in plants. Current Biology, 2022, 32, R623-R629.	3.9	31
58	Concerted expression of a cell cycle regulator and a metabolic enzyme from a bicistronic transcript in plants. Nature Plants, 2019, 5, 184-193.	9.3	30
59	Peroxisomal Î”³,Î”²â€enoylâ€ƒCoA isomerases and evolution of cytosolic paralogues in embryophytes. Plant Journal, 2008, 56, 728-742.	5.7	23
60	Prediction of regulatory long intergenic non-coding RNAs acting in trans through base-pairing interactions. BMC Genomics, 2019, 20, 601.	2.8	23
61	Expression of the mammalian Xenotropic Polytropic Virus Receptor 1 (XPR1) in tobacco leaves leads to phosphate export. FEBS Letters, 2014, 588, 482-489.	2.8	21
62	Modulation of Shoot Phosphate Level and Growth by <i>PHOSPHATE1</i> Upstream Open Reading Frame. Plant Physiology, 2020, 183, 1145-1156.	4.8	21
63	An antisense noncoding RNA enhances translation via localized structural rearrangements of its cognate mRNA. Plant Cell, 2021, 33, 1381-1397.	6.6	21
64	Modification of the Monomer Composition of Polyhydroxyalkanoate Synthesized in Saccharomyces cerevisiae Expressing Variants of the Î²-Oxidation-Associated Multifunctional Enzyme. Applied and Environmental Microbiology, 2003, 69, 6495-6499.	3.1	20
65	Making sense of the natural antisense transcript puzzle. Trends in Plant Science, 2021, 26, 1104-1115.	8.8	19
66	Critical Role of Transcript Cleavage in Arabidopsis RNA Polymerase II Transcriptional Elongation. Plant Cell, 2020, 32, 1449-1463.	6.6	18
67	Plants as factories for bioplastics and other novel biomaterials. , 2012, , 481-494.		16
68	Metabolic Engineering of Plants for the Synthesis of Polyhydroxyalkanaotes. Microbiology Monographs, 2010, , 187-211.	0.6	14
69	Analysis of the Î²-oxidation of trans-unsaturated fatty acid in recombinant Saccharomyces cerevisiae expressing a peroxisomal PHA synthase reveals the involvement of a reductase-dependent pathway. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2005, 1734, 169-177.	2.4	13
70	The transcription and export complex THO/TREX contributes to transcription termination in plants. PLoS Genetics, 2020, 16, e1008732.	3.5	11
71	PHO1 family members transport phosphate from infected nodule cells to bacteroids in Medicago truncatula. Plant Physiology, 2021, 185, 196-209.	4.8	11
72	Production of low phytic acid rice by hairpin RNA- and artificial microRNA-mediated silencing of OsMIK in seeds. Plant Cell, Tissue and Organ Culture, 2014, 119, 15-25.	2.3	10

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73	Analysis of the contribution of the Î²-oxidation auxiliary enzymes in the degradation of the dietary conjugated linoleic acid 9-cis-11-trans-octadecadienoic acid in the peroxisomes of Saccharomyces cerevisiae. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2005, 1735, 204-213.	2.4	9
74	Post-translational Regulation of SPX Proteins forÂCoordinated Nutrient Signaling. Molecular Plant, 2019, 12, 1041-1043.	8.3	8
75	Repercussion of a deficiency in mitochondrial ÃŸ-oxidation on the carbon flux of short-chain fatty acids to the peroxisomal ÃŸ-oxidation cycle in Aspergillus nidulans. Biochimica Et Biophysica Acta - Molecular and Cell Biology of Lipids, 2010, 1801, 1386-1392.	2.4	5
76	Partitioning of above and below ground costs during phosphate stress in Medicago truncatula. Journal of Plant Nutrition, 2019, 42, 759-771.	1.9	0