Hatem Rouached

List of Publications by Year
in descending order

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58 papers	3,598 citations	159585 30 h-index	144013 57 g-index
64 all docs	64 docs citations	64 times ranked	3685 citing authors

#	ARTICLE	IF	CITATIONS
1	Regulation of Phosphate Starvation Responses in Plants: Signaling Players and Cross-Talks. Molecular Plant, 2010, 3, 288-299.	8.3	334
2	Improving phosphorus use efficiency: a complex trait with emerging opportunities. Plant Journal, 2017, 90, 868-885.	5.7	229
3	Integration of P, S, Fe, and Zn nutrition signals in Arabidopsis thaliana: potential involvement of PHOSPHATE STARVATION RESPONSE 1 (PHR1). Frontiers in Plant Science, 2015, 06, 290.	3.6	189
4	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
5	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
6	Characterization of a Selenate-Resistant Arabidopsis Mutant. Root Growth as a Potential Target for Selenate Toxicity. Plant Physiology, 2007, 143, 1231-1241.	4.8	156
7	Differential Regulation of the Expression of Two High-Affinity Sulfate Transporters, SULTR1.1 and SULTR1.2, in Arabidopsis Â Â. Plant Physiology, 2008, 147, 897-911.	4.8	153
8	Identification of Molecular Integrators Shows that Nitrogen Actively Controls the Phosphate Starvation Response in Plants. Plant Cell, 2019, 31, 1171-1184.	6.6	135
9	Combating Mineral Malnutrition through Iron and Zinc Biofortification of Cereals. Comprehensive Reviews in Food Science and Food Safety, 2014, 13, 329-346.	11.7	134
10	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
11	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
12	Structural and Functional Analysis of the C-terminal STAS (Sulfate Transporter and Anti-sigma) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 30 Chemistry, 2005, 280, 15976-15983.	3.4	113
13	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
14	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
15	Getting to the Root of Plant Mineral Nutrition: Combinatorial Nutrient Stresses Reveal Emergent Properties. Trends in Plant Science, 2019, 24, 542-552.	8.8	88
16	The Coumarins: Secondary Metabolites Playing a Primary Role in Plant Nutrition and Health. Trends in Plant Science, 2021, 26, 248-259.	8.8	80
17	LPCAT1 controls phosphate homeostasis in a zinc-dependent manner. ELife, 2018, 7, .	6.0	63
18	The Involvement of OsPHO1;1 in the Regulation of Iron Transport Through Integration of Phosphate and Zinc Deficiency Signaling. Frontiers in Plant Science, 2016, 7, 396.	3.6	60

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19	Nutrient stress-induced chromatin changes in plants. Current Opinion in Plant Biology, 2017, 39, 1-7.	7.1	57
20	Nod Factor Effects on Root Hair-Specific Transcriptome of Medicago truncatula: Focus on Plasma Membrane Transport Systems and Reactive Oxygen Species Networks. Frontiers in Plant Science, 2016, 7, 794.	3.6	55
21	Phosphate, phytate and phytases in plants: from fundamental knowledge gained in Arabidopsis to potential biotechnological applications in wheat. Critical Reviews in Biotechnology, 2017, 37, 898-910.	9.0	53
22	Coordinated homeostasis of essential mineral nutrients: a focus on iron. Journal of Experimental Botany, 2021, 72, 2136-2153.	4.8	53
23	Reappraisal of the central role of soil nutrient availability in nutrient management in light of recent advances in plant nutrition at crop and molecular levels. European Journal of Agronomy, 2020, 116, 126069.	4.1	51
24	Mineral nutrient signaling controls photosynthesis: focus on iron deficiency-induced chlorosis. Trends in Plant Science, 2022, 27, 502-509.	8.8	49
25	Integrative analysis of hexaploid wheat roots identifies signature components during iron starvation. Journal of Experimental Botany, 2019, 70, 6141-6161.	4.8	48
26	Natural allelic variation of the AZI1 gene controls root growth under zinc-limiting condition. PLoS Genetics, 2018, 14, e1007304.	3.5	47
27	Systems genomics approaches provide new insights into Arabidopsis thaliana root growth regulation under combinatorial mineral nutrient limitation. PLoS Genetics, 2019, 15, e1008392.	3.5	46
28	Interdependent iron and phosphorus availability controls photosynthesis through retrograde signaling. Nature Communications, 2021, 12, 7211.	12.8	43
29	Phosphate/Zinc Interaction Analysis in Two Lettuce Varieties Reveals Contrasting Effects on Biomass, Photosynthesis, and Dynamics of Pi Transport. BioMed Research International, 2014, 2014, 1-9.	1.9	35
30	Getting the most sulfate from soil: Regulation of sulfate uptake transporters in Arabidopsis. Journal of Plant Physiology, 2009, 166, 893-902.	3.5	34
31	Recent Advances in Understanding the Molecular Mechanisms Regulating the Root System Response to Phosphate Deficiency in Arabidopsis. Current Genomics, 2016, 17, 308-314.	1.6	33
32	Recent developments in plant zinc homeostasis and the path toward improved biofortification and phytoremediation programs. Plant Signaling and Behavior, 2013, 8, e22681.	2.4	31
33	The secretion of the bacterial phytase PHY â€•US 417 by Arabidopsis roots reveals its potential for increasing phosphate acquisition and biomass production during coâ€growth. Plant Biotechnology Journal, 2016, 14, 1914-1924.	8.3	31
34	Molecular mechanisms of phosphate and zinc signalling crosstalk in plants: Phosphate and zinc loading into root xylem in Arabidopsis. Environmental and Experimental Botany, 2015, 114, 57-64.	4.2	30
35	System-level understanding of plant mineral nutrition in the big data era. Current Opinion in Systems Biology, 2017, 4, 71-77.	2.6	29
36	TransDetect Identifies a New Regulatory Module Controlling Phosphate Accumulation. Plant Physiology, 2017, 175, 916-926.	4.8	28

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37	GARP transcription factors repress Arabidopsis nitrogen starvation response via ROS-dependent and -independent pathways. Journal of Experimental Botany, 2021, 72, 3881-3901.	4.8	27
38	Multilevel coordination of phosphate and sulfate homeostasis in plants. Plant Signaling and Behavior, 2011, 6, 952-955.	2.4	23
39	Over-expression of the Bacterial Phytase US417 in Arabidopsis Reduces the Concentration of Phytic Acid and Reveals Its Involvement in the Regulation of Sulfate and Phosphate Homeostasis and Signaling. Plant and Cell Physiology, 2014, 55, 1912-1924.	3.1	23
40	Individual versus Combinatorial Effects of Silicon, Phosphate, and Iron Deficiency on the Growth of Lowland and Upland Rice Varieties. International Journal of Molecular Sciences, 2018, 19, 899.	4.1	21
41	Interplay Between Silicon and Iron Signaling Pathways to Regulate Silicon Transporter Lsi1 Expression in Rice. Frontiers in Plant Science, 2020, 11, 1065.	3.6	21
42	Regulation of ion homeostasis in plants: Current approaches and future challenges. Plant Signaling and Behavior, 2010, 5, 501-502.	2.4	20
43	Plant resilience to phosphate limitation: current knowledge and future challenges. Critical Reviews in Biotechnology, 2021, 41, 63-71.	9.0	17
44	Phosphorus and Iron Deficiencies Influences Rice Shoot Growth in an Oxygen Dependent Manner: Insight from Upland and Lowland Rice. International Journal of Molecular Sciences, 2017, 18, 607.	4.1	16
45	Phytase overexpression in Arabidopsis improves plant growth under osmotic stress and in combination with phosphate deficiency. Scientific Reports, 2018, 8, 1137.	3.3	15
46	OsbHLH061 links TOPLESS/TOPLESSâ€RELATED repressor proteins with POSITIVE REGULATOR OF IRON HOMEOSTASIS 1 to maintain iron homeostasis in rice. New Phytologist, 2022, 234, 1753-1769.	7.3	14
47	Approaches and determinants to sustainably improve crop production. Food and Energy Security, 2023, 12, .	4.3	12
48	Distribution of iron and zinc in plant and grain of different rice genotypes grown under aerobic and wetland conditions. Journal of Cereal Science, 2016, 71, 108-115.	3.7	11
49	Phosphorus Transport in Arabidopsis and Wheat: Emerging Strategies to Improve P Pool in Seeds. Agriculture (Switzerland), 2018, 8, 27.	3.1	9
50	Plants Coping Abiotic and Biotic Stresses: A Tale of Diligent Management. BioMed Research International, 2015, 2015, 1-2.	1.9	8
51	Physiological and molecular responses to combinatorial iron and phosphate deficiencies in hexaploid wheat seedlings. Genomics, 2021, 113, 3935-3950.	2.9	8
52	Regulation of Plant Mineral Nutrition: Transport, Sensing and Signaling. International Journal of Molecular Sciences, 2015, 16, 29717-29719.	4.1	7
53	A tale of two players: the role of phosphate in iron and zinc homeostatic interactions. Planta, 2022, 256, .	3.2	7
54	Protecting plant nutrition from the effects of climate change. Current Biology, 2022, 32, R725-R727.	3.9	7

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55	Red light means on for phosphorus. Nature Plants, 2018, 4, 983-984.	9.3	6
56	Efficient procedure for site-directed mutagenesis mediated by PCR insertion of a novel restriction site. Plant Signaling and Behavior, 2010, 5, 1547-1548.	2.4	3
57	Iron, Zinc and Total Antioxidant Capacity in Different Layers of Rice Grain among Different Varieties. International Journal of Agriculture and Biology, 2016, 18, 1131-1136.	0.4	2
58	The Time of Flooding Occurrence is Critical for Yield Production in Rice and Vary in a Genotype-Dependent Manner. OnLine Journal of Biological Sciences, 2017, 17, 58-65.	0.4	1