

Altered selectivity in an Arabidopsis metal transporter

Proceedings of the National Academy of Sciences of the United States of America
97, 12356-12360

DOI: [10.1073/pnas.210214197](https://doi.org/10.1073/pnas.210214197)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Cloning and Characterization of IAR1, a Gene Required for Auxin Conjugate Sensitivity in Arabidopsis. <i>Plant Cell</i> , 2000, 12, 2395.	3.1	3
2	Cloning and Characterization of IAR1, a Gene Required for Auxin Conjugate Sensitivity in Arabidopsis. <i>Plant Cell</i> , 2000, 12, 2395-2408.	3.1	97
3	Mining copper transport genes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2001, 98, 6543-6545.	3.3	32
4	Phylogenetic Relationships within Cation Transporter Families of Arabidopsis. <i>Plant Physiology</i> , 2001, 126, 1646-1667.	2.3	1,110
5	The use of transgenic plants in the bioremediation of soils contaminated with trace elements. <i>Applied Microbiology and Biotechnology</i> , 2001, 55, 661-672.	1.7	216
6	Arabidopsis IRT2 gene encodes a root-periphery iron transporter. <i>Plant Journal</i> , 2001, 26, 181-189.	2.8	272
7	Eukaryotic zinc transporters and their regulation. <i>BioMetals</i> , 2001, 14, 251-270.	1.8	459
8	Cadmium-induced changes in the growth and oxidative metabolism of pea plants. <i>Journal of Experimental Botany</i> , 2001, 52, 2115-2126.	2.4	1,198
9	The Human ZIP1 Transporter Mediates Zinc Uptake in Human K562 Erythroleukemia Cells. <i>Journal of Biological Chemistry</i> , 2001, 276, 22258-22264.	1.6	254
10	Structural Determinants of Ca ²⁺ Transport in the Arabidopsis H ⁺ /Ca ²⁺ Antiporter CAX1. <i>Journal of Biological Chemistry</i> , 2001, 276, 43152-43159.	1.6	62
11	Mechanisms of micronutrient uptake in plants. <i>Functional Plant Biology</i> , 2001, 28, 661.	1.1	10
12	Brassicaceae (Cruciferae) Family, Plant Biotechnology, and Phytoremediation. <i>International Journal of Phytoremediation</i> , 2001, 3, 245-287.	1.7	63
13	The Involvement of a Multicopper Oxidase in Iron Uptake by the Green Algae <i>Chlamydomonas reinhardtii</i> . <i>Plant Physiology</i> , 2002, 130, 2039-2048.	2.3	102
14	Influence of Iron Status on Cadmium and Zinc Uptake by Different Ecotypes of the Hyperaccumulator <i>Thlaspi caerulescens</i> . <i>Plant Physiology</i> , 2002, 128, 1359-1367.	2.3	293
15	Expression of the IRT1 Metal Transporter Is Controlled by Metals at the Levels of Transcript and Protein Accumulation. <i>Plant Cell</i> , 2002, 14, 1347-1357.	3.1	684
16	A Novel Zinc-regulated Human Zinc Transporter, hZTL1, Is Localized to the Enterocyte Apical Membrane. <i>Journal of Biological Chemistry</i> , 2002, 277, 22789-22797.	1.6	123
17	Role of Mitochondrial Carrier Protein Mrs3/4 in Iron Acquisition and Oxidative Stress Resistance of <i>Cryptococcus neoformans</i> . <i>Medical Mycology</i> , 2002, 40, 581-591.	0.3	21
18	Characterization of CAX4, an Arabidopsis H ⁺ /Cation Antiporter. <i>Plant Physiology</i> , 2002, 128, 1245-1254.	2.3	109

#	ARTICLE	IF	CITATIONS
19	GmZIP1 Encodes a Symbiosis-specific Zinc Transporter in Soybean. <i>Journal of Biological Chemistry</i> , 2002, 277, 4738-4746.	1.6	140
20	Characteristics of cadmium uptake in two contrasting ecotypes of the hyperaccumulator <i>Thlaspi caerulescens</i> . <i>Journal of Experimental Botany</i> , 2002, 53, 535-543.	2.4	328
21	IRT1, an Arabidopsis Transporter Essential for Iron Uptake from the Soil and for Plant Growth. <i>Plant Cell</i> , 2002, 14, 1223-1233.	3.1	1,464
22	Reduced Cd Accumulation in <i>Zea mays</i> : A Protective Role for Phytosiderophores?. <i>Environmental Science & Technology</i> , 2002, 36, 5363-5368.	4.6	53
23	Cloning an iron-regulated metal transporter from rice. <i>Journal of Experimental Botany</i> , 2002, 53, 1677-1682.	2.4	261
24	<i>Mycobacterium bovis</i> BCG Cell Wall and Lipopolysaccharide Induce a Novel Gene, BIGM103, Encoding a 7-TM Protein: Identification of a New Protein Family Having Zn-Transporter and Zn-Metalloprotease Signatures. <i>Genomics</i> , 2002, 80, 630-645.	1.3	142
25	A long way ahead: understanding and engineering plant metal accumulation. <i>Trends in Plant Science</i> , 2002, 7, 309-315.	4.3	1,083
26	Phytoremediation of Metals Using Transgenic Plants. <i>Critical Reviews in Plant Sciences</i> , 2002, 21, 439-456.	2.7	254
27	Limiting nutrients: an old problem with new solutions?. <i>Current Opinion in Plant Biology</i> , 2002, 5, 158-163.	3.5	43
28	Metabolic Engineering of Plants: The Role of Membrane Transport. <i>Metabolic Engineering</i> , 2002, 4, 57-66.	3.6	36
29	Retardation and inhibition of the cation-induced superoxide generation in BY-2 tobacco cell suspension culture by Zn ²⁺ and Mn ²⁺ . <i>Physiologia Plantarum</i> , 2002, 114, 395-404.	2.6	40
30	The use of reconstitution and inhibitor/ion interaction assays to distinguish between Ca ²⁺ /H ⁺ and Cd ²⁺ /H ⁺ -antiporter activities of oat and tobacco tonoplast vesicles. <i>Physiologia Plantarum</i> , 2002, 116, 359-367.	2.6	6
31	Phytochemicals in plants: genomics-assisted plant improvement for nutritional and health benefits. <i>Current Opinion in Biotechnology</i> , 2002, 13, 508-511.	3.3	37
32	The metal ion transporter IRT1 is necessary for iron homeostasis and efficient photosynthesis in <i>Arabidopsis thaliana</i> . <i>Plant Journal</i> , 2002, 31, 589-599.	2.8	298
33	Identification of SLC39A4, a gene involved in acrodermatitis enteropathica. <i>Nature Genetics</i> , 2002, 31, 239-240.	9.4	486
34	Knock-out of Arabidopsis metal transporter gene IRT1 results in iron deficiency accompanied by cell differentiation defects. <i>Plant Molecular Biology</i> , 2002, 50, 587-597.	2.0	229
35	A Putative Role for the Vacuolar Calcium/Manganese Proton Antiporter AtCAX2 in Heavy Metal Detoxification. <i>Plant Biology</i> , 2002, 4, 612-618.	1.8	46
36	Zn ²⁺ transporters and Zn ²⁺ homeostasis in neurons. <i>European Journal of Pharmacology</i> , 2003, 479, 171-185.	1.7	162

#	ARTICLE	IF	CITATIONS
37	Transcript levels of AtMRPs after cadmium treatment: induction of AtMRP3. <i>Plant, Cell and Environment</i> , 2003, 26, 371-381.	2.8	111
38	Mechanisms and Control of Nutrient Uptake in Plants. <i>International Review of Cytology</i> , 2003, 229, 73-114.	6.2	66
39	IRONTRANSPORT AND SIGNALING IN PLANTS. <i>Annual Review of Plant Biology</i> , 2003, 54, 183-206.	8.6	487
40	The LZT proteins; the LIV-1 subfamily of zinc transporters. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2003, 1611, 16-30.	1.4	229
41	Heavy metal signalling in plants: linking cellular and organismic responses. <i>Topics in Current Genetics</i> , 0, , 187-215.	0.7	57
42	Iron acquisition by teleost fish. <i>Comparative Biochemistry and Physiology Part - C: Toxicology and Pharmacology</i> , 2003, 135, 97-105.	1.3	70
43	Transition metal transporters in plants. <i>Journal of Experimental Botany</i> , 2003, 54, 2601-2613.	2.4	481
44	The Acrodermatitis Enteropathica Gene ZIP4 Encodes a Tissue-specific, Zinc-regulated Zinc Transporter in Mice. <i>Journal of Biological Chemistry</i> , 2003, 278, 33474-33481.	1.6	256
45	Differential Metal Selectivity and Gene Expression of Two Zinc Transporters from Rice. <i>Plant Physiology</i> , 2003, 133, 126-134.	2.3	307
46	Manganese Specificity Determinants in the Arabidopsis Metal/H ⁺ Antiporter CAX2. <i>Journal of Biological Chemistry</i> , 2003, 278, 6610-6617.	1.6	98
47	Nylon Filter Arrays Reveal Differential Gene Expression in Proteoid Roots of White Lupin in Response to Phosphorus Deficiency. <i>Plant Physiology</i> , 2003, 131, 1064-1079.	2.3	178
48	Structure, Function, and Regulation of a Subfamily of Mouse Zinc Transporter Genes. <i>Journal of Biological Chemistry</i> , 2003, 278, 50142-50150.	1.6	154
49	Iron homeostasis related genes in rice. <i>Genetics and Molecular Biology</i> , 2003, 26, 477-497.	0.6	108
50	Trace Element Uptake and Distribution in Plants. <i>Journal of Nutrition</i> , 2003, 133, 1502S-1505S.	1.3	46
51	Intestinal and placental zinc transport pathways. <i>Proceedings of the Nutrition Society</i> , 2004, 63, 21-29.	0.4	59
52	Identification of the Transmembrane Metal Binding Site in Cu ⁺ -transporting PIB-type ATPases. <i>Journal of Biological Chemistry</i> , 2004, 279, 54802-54807.	1.6	67
53	Identification and Characterization of Several New Members of the ZIP Family of Metal Ion Transporters in <i>Medicago Truncatula</i> . <i>Plant Molecular Biology</i> , 2004, 54, 583-596.	2.0	163
54	The SLC39 family of metal ion transporters. <i>Pflügers Archiv European Journal of Physiology</i> , 2004, 447, 796-800.	1.3	342

#	ARTICLE	IF	CITATIONS
56	Overview of mammalian zinc transporters. Cellular and Molecular Life Sciences, 2004, 61, 49-68.	2.4	366
58	MAMMALIAN ZINC TRANSPORTERS. Annual Review of Nutrition, 2004, 24, 151-172.	4.3	514
59	Transition metal transport in the green microalga <i>Chlamydomonas reinhardtii</i> genomic sequence analysis. Research in Microbiology, 2004, 155, 201-210.	1.0	30
60	Critical Review of the Science and Options for Reducing Cadmium in Tobacco (<i>Nicotiana Tabacum</i> L.) and Other Plants. Advances in Agronomy, 2004, 83, 111-180.	2.4	104
61	Phytoremediation: novel approaches to cleaning up polluted soils. Current Opinion in Biotechnology, 2005, 16, 133-141.	3.3	426
62	Mechanisms of toxic metal tolerance in yeast. Topics in Current Genetics, 2005, , 395-454.	0.7	27
63	Managing the manganese: molecular mechanisms of manganese transport and homeostasis. New Phytologist, 2005, 167, 733-742.	3.5	312
64	Sulfur assimilation and glutathione metabolism under cadmium stress in yeast, protists and plants. FEMS Microbiology Reviews, 2005, 29, 653-671.	3.9	364
65	Cloning of three ZIP/Nramp transporter genes from a Ni hyperaccumulator plant <i>Thlaspi japonicum</i> and their Ni ²⁺ -transport abilities. Plant Physiology and Biochemistry, 2005, 43, 793-801.	2.8	137
66	Environmental Metal Cation Stress and Oxidative Burst in Plants. A Review. , 2005, , 631-643.		0
67	Roots and Soil Management: Interactions between Roots and the Soil. Agronomy, 2005, , .	0.2	22
68	Identification of a Crucial Histidine Involved in Metal Transport Activity in the Arabidopsis Cation/H ⁺ Exchanger CAX1. Journal of Biological Chemistry, 2005, 280, 30136-30142.	1.6	63
69	Drosophila fear of intimacy Encodes a Zrt/IRT-like Protein (ZIP) Family Zinc Transporter Functionally Related to Mammalian ZIP Proteins. Journal of Biological Chemistry, 2005, 280, 787-795.	1.6	57
70	Interleukin-6 regulates the zinc transporter Zip14 in liver and contributes to the hypozincemia of the acute-phase response. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 6843-6848.	3.3	487
71	The Zip Family of Zinc Transporters. , 2005, , 261-264.		21
72	OsZIP4, a novel zinc-regulated zinc transporter in rice. Journal of Experimental Botany, 2005, 56, 3207-3214.	2.4	350
73	Transgenic Plants in Phytoremediation: Recent Advances and New Possibilities. Environmental Science & Technology, 2005, 39, 9377-9390.	4.6	364
74	PHYTOREMEDIATION. Annual Review of Plant Biology, 2005, 56, 15-39.	8.6	1,728

#	ARTICLE	IF	CITATIONS
75	NtPDR3, an iron-deficiency inducible ABC transporter in <i>Nicotiana tabacum</i> . <i>FEBS Letters</i> , 2005, 579, 6791-6795.	1.3	51
76	Cd ²⁺ transport and storage in the chloroplast of <i>Euglena gracilis</i> . <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2005, 1706, 88-97.	0.5	58
80	A <i>Leishmania amazonensis</i> ZIP family iron transporter is essential for parasite replication within macrophage phagolysosomes. <i>Journal of Experimental Medicine</i> , 2006, 203, 2363-2375.	4.2	139
81	Evolution of Iron Acquisition in Higher Plants. <i>Journal of Plant Nutrition</i> , 2006, 29, 1109-1125.	0.9	19
82	Mammalian Zinc Transport, Trafficking, and Signals. <i>Journal of Biological Chemistry</i> , 2006, 281, 24085-24089.	1.6	587
83	Histidine residues in the region between transmembrane domains III and IV of hZip1 are required for zinc transport across the plasma membrane in PC-3 cells. <i>Biochimica Et Biophysica Acta - Biomembranes</i> , 2006, 1758, 1696-1701.	1.4	45
84	HEAVY METAL STRESS. , 2006, , 219-254.		39
85	Iron deficiency enhances cadmium uptake and translocation mediated by the Fe ²⁺ transporters OsIRT1 and OsIRT2 in rice. <i>Soil Science and Plant Nutrition</i> , 2006, 52, 464-469.	0.8	408
86	⁵² Mn translocation in barley monitored using a positron-emitting tracer imaging system. <i>Soil Science and Plant Nutrition</i> , 2006, 52, 717-725.	0.8	44
87	Rice plants take up iron as an Fe ³⁺ -phytosiderophore and as Fe ²⁺ . <i>Plant Journal</i> , 2006, 45, 335-346.	2.8	703
88	Molecular aspects of Cu, Fe and Zn homeostasis in plants. <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2006, 1763, 595-608.	1.9	382
89	Identification of a zinc transporter gene in strawberry. <i>DNA Sequence</i> , 2006, 17, 15-23.	0.7	0
90	AtIREG2 Encodes a Tonoplast Transport Protein Involved in Iron-dependent Nickel Detoxification in <i>Arabidopsis thaliana</i> Roots. <i>Journal of Biological Chemistry</i> , 2006, 281, 25532-25540.	1.6	194
91	Iron Transport and Metabolism in Plants. , 2006, 27, 119-140.		20
92	Expression and functional analysis of metal transporter genes in two contrasting ecotypes of the hyperaccumulator <i>Thlaspi caerulescens</i> . <i>Journal of Experimental Botany</i> , 2007, 58, 1717-1728.	2.4	119
93	Accumulation and Detoxification of Metals by Plants and Microbes. , 2007, , 77-100.		11
94	Iron Dynamics in Plants. <i>Advances in Botanical Research</i> , 2007, 46, 137-180.	0.5	36
95	Toxic effect of arsenate and cadmium alone and in combination on giant duckweed (<i>Spirodela</i>) Tj ETQq1 1 0.784314 rgBT/Overlook	2.1	82

#	ARTICLE	IF	CITATIONS
96	Copper and iron homeostasis in <i>Arabidopsis</i> : responses to metal deficiencies, interactions and biotechnological applications. <i>Plant, Cell and Environment</i> , 2007, 30, 271-290.	2.8	253
97	Differential regulation of cadmium-inducible expression of iron-deficiency-responsive genes in tobacco and barley. <i>Physiologia Plantarum</i> , 2007, 129, 622-634.	2.6	52
98	Iron acquisition within host cells and the pathogenicity of <i>Leishmania</i> . <i>Cellular Microbiology</i> , 2008, 10, 293-300.	1.1	84
99	Interaction of heavy metals with the sulphur metabolism in angiosperms from an ecological point of view. <i>Plant, Cell and Environment</i> , 2008, 31, 123-143.	2.8	180
100	Cadmium uptake in barley affected by iron concentration of the medium: Role of phytosiderophores. <i>Soil Science and Plant Nutrition</i> , 2007, 53, 259-266.	0.8	16
101	Molecular genetic approaches to increasing mineral availability and vitamin content of cereals. <i>Journal of Cereal Science</i> , 2007, 46, 308-326.	1.8	142
102	Iron nutrition affects cadmium accumulation and toxicity in rice plants. <i>Plant Growth Regulation</i> , 2007, 53, 33-42.	1.8	96
103	Involvement of histidine-rich domain of ZIP family transporter TjZNT1 in metal ion specificity. <i>Plant Physiology and Biochemistry</i> , 2008, 46, 601-606.	2.8	54
104	Effect of peanut mixed cropping with gramineous species on micronutrient concentrations and iron chlorosis of peanut plants grown in a calcareous soil. <i>Plant and Soil</i> , 2008, 306, 23-36.	1.8	67
105	Roles of root and shoot tissues in transport and accumulation of cadmium, lead, nickel, and strontium. <i>Russian Journal of Plant Physiology</i> , 2008, 55, 1-22.	0.5	155
106	Genomic analysis and expression pattern of OsZIP1, OsZIP3, and OsZIP4 in two rice (<i>Oryza sativa</i> L.) genotypes with different zinc efficiency. <i>Russian Journal of Plant Physiology</i> , 2008, 55, 400-409.	0.5	115
107	Cloning of ZIP family metal transporter genes from the manganese hyperaccumulator plant <i>Chengiopanax sciadophylloides</i> , and its metal transport and resistance abilities in yeast. <i>Soil Science and Plant Nutrition</i> , 2008, 54, 86-94.	0.8	25
108	Expression differences for genes involved in lignin, glutathione and sulphate metabolism in response to cadmium in <i>Arabidopsis thaliana</i> and the related Zn/Cd hyperaccumulator <i>Thlaspi caerulescens</i> . <i>Plant, Cell and Environment</i> , 2008, 31, 301-324.	2.8	291
109	Identification of high levels of phytochelatin, glutathione and cadmium in the phloem sap of <i>Brassica napus</i> . A role for thiol-peptides in the long-distance transport of cadmium and the effect of cadmium on iron translocation. <i>Plant Journal</i> , 2008, 54, 249-259.	2.8	311
110	Zinc biofortification of cereals: problems and solutions. <i>Trends in Plant Science</i> , 2008, 13, 464-473.	4.3	446
111	Promotion of metal accumulation in nodule of <i>Astragalus sinicus</i> by the expression of the iron-regulated transporter gene in <i>Mesorhizobium huakuii</i> subsp. <i>rengei</i> B3. <i>Journal of Bioscience and Bioengineering</i> , 2008, 105, 642-648.	1.1	29
112	Characterization of Cd Translocation and Identification of the Cd Form in Xylem Sap of the Cd-Hyperaccumulator <i>Arabidopsis halleri</i> . <i>Plant and Cell Physiology</i> , 2008, 49, 540-548.	1.5	157
113	Iron-Induced Turnover of the <i>Arabidopsis</i> IRON-REGULATED TRANSPORTER1 Metal Transporter Requires Lysine Residues. <i>Plant Physiology</i> , 2008, 146, 1964-1973.	2.3	138

#	ARTICLE	IF	CITATIONS
114	A Single Amino Acid Change in the Yeast Vacuolar Metal Transporters Zrc1 and Cot1 Alters Their Substrate Specificity. <i>Journal of Biological Chemistry</i> , 2008, 283, 33865-33873.	1.6	28
117	Molecular approach for phytoremediation of metal-contaminated sites. <i>Archives of Agronomy and Soil Science</i> , 2009, 55, 451-475.	1.3	8
118	Novel Proteolytic Processing of the Ectodomain of the Zinc Transporter ZIP4 (SLC39A4) during Zinc Deficiency Is Inhibited by Acrodermatitis Enteropathica Mutations. <i>Molecular and Cellular Biology</i> , 2009, 29, 129-139.	1.1	119
119	Distinctive phytotoxic effects of Cd and Ni on membrane functionality. <i>Plant Signaling and Behavior</i> , 2009, 4, 980-982.	1.2	21
120	Zinc transport mediated by barley ZIP proteins are induced by low pH. <i>Plant Signaling and Behavior</i> , 2009, 4, 842-845.	1.2	37
121	Multiple Antibiotic Resistance in Arabidopsis Is Conferred by Mutations in a Chloroplast-Localized Transport Protein. <i>Plant Physiology</i> , 2009, 151, 559-573.	2.3	74
122	Mechanisms to cope with arsenic or cadmium excess in plants. <i>Current Opinion in Plant Biology</i> , 2009, 12, 364-372.	3.5	678
123	Dualities in plant tolerance to pollutants and their uptake and translocation to the upper plant parts. <i>Environmental and Experimental Botany</i> , 2009, 67, 10-22.	2.0	153
124	Implications of metal accumulation mechanisms to phytoremediation. <i>Environmental Science and Pollution Research</i> , 2009, 16, 162-175.	2.7	320
125	Phytoremediation of Heavy Metals: Physiological and Molecular Mechanisms. <i>Botanical Review</i> , The, 2009, 75, 339-364.	1.7	235
126	Transcriptome analysis of cadmium response in <i>Ganoderma lucidum</i> . <i>FEMS Microbiology Letters</i> , 2009, 293, 205-213.	0.7	24
127	Element interconnections in <i>Lotus japonicus</i> : A systematic study of the effects of element additions on different natural variants. <i>Soil Science and Plant Nutrition</i> , 2009, 55, 91-101.	0.8	36
128	Association mapping of cadmium, copper and hydrogen peroxide tolerance of roots and translocation capacities of cadmium and copper in <i>Arabidopsis thaliana</i> . <i>Physiologia Plantarum</i> , 2009, 137, 235-248.	2.6	10
129	Functional characterization of NRAMP3 and NRAMP4 from the metal hyperaccumulator <i>Thlaspi caerulescens</i> . <i>New Phytologist</i> , 2009, 181, 637-650.	3.5	244
130	Arabidopsis IRT3 is a zinc-regulated and plasma membrane localized zinc/iron transporter. <i>New Phytologist</i> , 2009, 182, 392-404.	3.5	249
131	Chapter 12 Role of Iron in Plant-Microbe Interactions. <i>Advances in Botanical Research</i> , 2009, , 491-549.	0.5	64
132	Iron Uptake and Transport in Plants: The Good, the Bad, and the Ionome. <i>Chemical Reviews</i> , 2009, 109, 4553-4567.	23.0	546
134	Cellular Response of Pea Plants to Cadmium Toxicity: Cross Talk between Reactive Oxygen Species, Nitric Oxide, and Calcium. <i>Plant Physiology</i> , 2009, 150, 229-243.	2.3	532

#	ARTICLE	IF	CITATIONS
135	Gain-of-function mutations identify amino acids within transmembrane domains of the yeast vacuolar transporter Zrc1 that determine metal specificity. <i>Biochemical Journal</i> , 2009, 422, 273-283.	1.7	23
136	The NRAMP6 metal transporter contributes to cadmium toxicity. <i>Biochemical Journal</i> , 2009, 422, 217-228.	1.7	235
137	Point mutations change specificity and kinetics of metal uptake by ZupT from <i>Escherichia coli</i> . <i>BioMetals</i> , 2010, 23, 643-656.	1.8	58
138	The putative <i>Arabidopsis</i> zinc transporter ZTP29 is involved in the response to salt stress. <i>Plant Molecular Biology</i> , 2010, 73, 467-479.	2.0	46
139	Functional characterization of LIT1, the <i>Leishmania amazonensis</i> ferrous iron transporter. <i>Molecular and Biochemical Parasitology</i> , 2010, 170, 28-36.	0.5	32
140	Cross relationships of Cu, Fe, Zn, Mn, and Cd accumulations in common japonica and indica rice cultivars in Japan. <i>Environmental and Experimental Botany</i> , 2010, 68, 180-187.	2.0	16
141	Molecular and Phenotypic Characterization of Transgenic Tobacco Expressing the <i>Arabidopsis</i> IRT1 Gene. , 2010, , .		0
142	<i>Arabidopsis</i> PCR2 Is a Zinc Exporter Involved in Both Zinc Extrusion and Long-Distance Zinc Transport. <i>Plant Cell</i> , 2010, 22, 2237-2252.	3.1	170
143	The effects of cadmium and zinc interactions on the accumulation and tissue distribution of cadmium and zinc in tomato (<i>Lycopersicon esculentum</i> Mill.). <i>Archives of Agronomy and Soil Science</i> , 2010, 56, 551-561.	1.3	21
144	Cytosolic metal handling in plants: determinants for zinc specificity in metal transporters and metallothioneins. <i>Metallomics</i> , 2010, 2, 510.	1.0	71
145	Cloning and functional analysis of the peanut iron transporter AhIRT1 during iron deficiency stress and intercropping with maize. <i>Journal of Plant Physiology</i> , 2010, 167, 996-1002.	1.6	40
146	Regulatory networks of cadmium stress in plants. <i>Plant Signaling and Behavior</i> , 2010, 5, 663-667.	1.2	376
147	iTRAQ Analysis Reveals Mechanisms of Growth Defects Due to Excess Zinc in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2011, 155, 1893-1907.	2.3	167
149	Iron Transport and Signaling in Plants. <i>Signaling and Communication in Plants</i> , 2011, , 99-131.	0.5	30
151	Brassinosteroids: A Class of Plant Hormone. , 2011, , .		37
152	The Plant Plasma Membrane. <i>Plant Cell Monographs</i> , 2011, , .	0.4	11
153	Slc39a13/Zip13: A Crucial Zinc Transporter Involved in Tooth Development and Inherited Disorders. <i>Journal of Oral Biosciences</i> , 2011, 53, 1-12.	0.8	17
154	Moving micronutrients from the soil to the seeds: Genes and physiological processes from a biofortification perspective. <i>Plant Science</i> , 2011, 180, 562-574.	1.7	234

#	ARTICLE	IF	CITATIONS
155	Family reunion â€œ The ZIP/prion gene family. <i>Progress in Neurobiology</i> , 2011, 93, 405-420.	2.8	33
156	Brassinosteroids for phytoremediation application. , 2011, , 403-437.		19
157	Investigation of a Hisâ€rich arabinogalactanâ€protein for micronutrient biofortification of cereal grain. <i>Physiologia Plantarum</i> , 2011, 143, 271-286.	2.6	7
158	Effect of manganese on cadmium toxicity in maize seedlings. <i>Plant, Soil and Environment</i> , 2006, 52, 143-149.	1.0	28
160	Differential expression and regulation of ironâ€regulated metal transporters in <i>Arabidopsis halleri</i> and <i>Arabidopsis thaliana</i> â€ the role in zinc tolerance. <i>New Phytologist</i> , 2011, 190, 125-137.	3.5	127
161	Identification of the Nâ€terminal region of TjZNT2, a Zrt/Irtâ€like protein family metal transporter, as a novel functional region involved in metal ion selectivity. <i>FEBS Journal</i> , 2011, 278, 851-858.	2.2	3
162	Opportunities and feasibilities for biotechnological improvement of Zn, Cd or Ni tolerance and accumulation in plants. <i>Environmental and Experimental Botany</i> , 2011, 72, 53-63.	2.0	154
163	Molecular and genetic features of zinc transporters in physiology and pathogenesis. <i>Metallomics</i> , 2011, 3, 662.	1.0	250
164	Expression and Cellular Localization of ZIP1 Transporter Under Zinc Deficiency in Wild Emmer Wheat. <i>Plant Molecular Biology Reporter</i> , 2011, 29, 582-596.	1.0	50
165	Zn Uptake and Translocation in Rice Plants. <i>Rice</i> , 2011, 4, 21-27.	1.7	146
166	Safety of food crops on land contaminated with trace elements. <i>Journal of the Science of Food and Agriculture</i> , 2011, 91, 1349-1366.	1.7	54
167	Evidence for operation of the direct zinc ligand exchange mechanism for trafficking, transport, and reactivity of zinc in mammalian cells. <i>Journal of Inorganic Biochemistry</i> , 2011, 105, 589-599.	1.5	88
168	Ubiquitination of transporters at the forefront of plant nutrition. <i>Plant Signaling and Behavior</i> , 2011, 6, 1597-1599.	1.2	14
169	Monoubiquitin-dependent endocytosis of the IRON-REGULATED TRANSPORTER 1 (IRT1) transporter controls iron uptake in plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, E450-8.	3.3	406
170	Circadian clock adjustment to plant iron status depends on chloroplast and phytochrome function. <i>EMBO Journal</i> , 2012, 32, 511-523.	3.5	96
171	AhNRAMP1 iron transporter is involved in iron acquisition in peanut. <i>Journal of Experimental Botany</i> , 2012, 63, 4437-4446.	2.4	68
172	Use of natural variation reveals core genes in the transcriptome of iron-deficient <i>Arabidopsis thaliana</i> roots. <i>Journal of Experimental Botany</i> , 2012, 63, 1039-1055.	2.4	55
173	The effect of cadmium on $\text{A}\hat{2}$ levels in APP/PS1 transgenic mice. <i>Experimental and Therapeutic Medicine</i> , 2012, 4, 125-130.	0.8	57

#	ARTICLE	IF	CITATIONS
174	Reactive Oxygen Species and Nitric Oxide in Plants Under Cadmium Stress: From Toxicity to Signaling. , 2012, , 199-215.		32
175	Biochemical and Functional Responses of <i>Arabidopsis thaliana</i> Exposed to Cadmium, Copper and Zinc. Environmental Pollution, 2012, , 239-263.	0.4	1
176	Assays of polychlorinated biphenyl congeners and co-contaminated heavy metals in the transgenic <i>Arabidopsis</i> plants carrying the recombinant guinea pig aryl hydrocarbon receptor-mediated β -glucuronidase reporter gene expression system. Journal of Environmental Science and Health - Part B Pesticides, Food Contaminants, and Agricultural Wastes, 2012, 47, 925-932.	0.7	3
177	Accumulation, Detoxification, and Genotoxicity of Heavy Metals in Indian Mustard (<i>Brassica</i>) Tj ETQq1 1 0.784314 rgBT / Overlock 10	1.7	35
178	EFFECT OF CADMIUM ON PHYSIOLOGICAL RESPONSES OF WHEAT AND CORN TO IRON DEFICIENCY. Journal of Plant Nutrition, 2012, 35, 1937-1948.	0.9	15
179	Iron biofortification in rice: It's a long way to the top. Plant Science, 2012, 190, 24-39.	1.7	160
180	Biofortification for combating "hidden hunger" for iron. Trends in Plant Science, 2012, 17, 47-55.	4.3	131
181	Phytoremediation: The Utilization of Plants to Reclaim Polluted Sites. Springer Briefs in Molecular Science, 2012, , 75-86.	0.1	3
182	The Plant Family Brassicaceae. Environmental Pollution, 2012, , .	0.4	33
183	Sulfur Metabolism in Plants. , 2012, , .		2
184	Binding of cadmium to <i>Strychnos potatorum</i> seed proteins in aqueous solution: Adsorption kinetics and relevance to water purification. Colloids and Surfaces B: Biointerfaces, 2012, 94, 73-79.	2.5	57
185	Unravelling cadmium toxicity and tolerance in plants: Insight into regulatory mechanisms. Environmental and Experimental Botany, 2012, 83, 33-46.	2.0	956
186	Heterologous functional analysis of the <i>Malus xiaojinensis</i> MxIRT1 gene and the His-box motif by expression in yeast. Molecular Biology Reports, 2013, 40, 1499-1504.	1.0	11
187	Functional analyses of <i>TaHMA2</i> , a <i>P1B</i> -type <i>ATPase</i> in wheat. Plant Biotechnology Journal, 2013, 11, 420-431.	4.1	82
188	Biotechnology of Crucifers. , 2013, , .		3
189	Biotechnological Strategies for Enhancing Phytoremediation. , 2013, , 63-90.		1
190	His-rich sequences " is plagiarism from nature a good idea?. New Journal of Chemistry, 2013, 37, 58-70.	1.4	50
191	Zinc-binding and structural properties of the histidine-rich loop of <i>Arabidopsis thaliana</i> vacuolar membrane zinc transporter MTP1. FEBS Open Bio, 2013, 3, 218-224.	1.0	26

#	ARTICLE	IF	CITATIONS
192	The extracellular loop of IRT1 ZIP protein is the chosen one for zinc?. <i>Journal of Inorganic Biochemistry</i> , 2013, 127, 246-252.	1.5	17
193	OmZnT1 and OmFET, two metal transporters from the metal-tolerant strain Zn of the ericoid mycorrhizal fungus <i>Oidiodendron maius</i> , confer zinc tolerance in yeast. <i>Fungal Genetics and Biology</i> , 2013, 52, 53-64.	0.9	31
194	Bioremediation of Heavy Metals Using Metal Hyperaccumulator Plants. <i>Soil Biology</i> , 2013, , 467-480.	0.6	0
195	Protocols for Applying Phytotechnologies in Metal-Contaminated Soils. <i>Soil Biology</i> , 2013, , 19-37.	0.6	9
196	The SLC39 family of zinc transporters. <i>Molecular Aspects of Medicine</i> , 2013, 34, 612-619.	2.7	355
197	Biofortification of cereals to overcome hidden hunger. <i>Plant Breeding</i> , 2013, 132, 437-445.	1.0	73
198	Biofortification of Staple Crops. , 2013, , 177-196.		3
199	Specific metal ion binding sites in unstructured regions of proteins. <i>Coordination Chemistry Reviews</i> , 2013, 257, 2625-2638.	9.5	63
200	Transport properties of members of the ZIP family in plants and their role in Zn and Mn homeostasis. <i>Journal of Experimental Botany</i> , 2013, 64, 369-381.	2.4	382
201	Roles of plant metal tolerance proteins (MTP) in metal storage and potential use in biofortification strategies. <i>Frontiers in Plant Science</i> , 2013, 4, 144.	1.7	199
202	The road to micronutrient biofortification of rice: progress and prospects. <i>Frontiers in Plant Science</i> , 2013, 4, 15.	1.7	132
203	Biotechnology of nutrient uptake and assimilation in plants. <i>International Journal of Developmental Biology</i> , 2013, 57, 595-610.	0.3	46
204	Investigating the Toxicity, Uptake, Nanoparticle Formation and Genetic Response of Plants to Gold. <i>PLoS ONE</i> , 2014, 9, e93793.	1.1	182
205	Radial Transport of Nutrients: The Plant Root as a Polarized Epithelium. <i>Plant Physiology</i> , 2014, 166, 528-537.	2.3	152
206	Moving toward a precise nutrition: preferential loading of seeds with essential nutrients over non-essential toxic elements. <i>Frontiers in Plant Science</i> , 2014, 5, 51.	1.7	42
207	Mn-euvering manganese: the role of transporter gene family members in manganese uptake and mobilization in plants. <i>Frontiers in Plant Science</i> , 2014, 5, 106.	1.7	228
208	Comparative transcriptome analysis of the metal hyperaccumulator <i>Noccaea caerulea</i> . <i>Frontiers in Plant Science</i> , 2014, 5, 213.	1.7	37
209	An Uncleaved Signal Peptide Directs the <i>Malus xiaojinensis</i> Iron Transporter Protein Mx IRT1 into the ER for the PM Secretory Pathway. <i>International Journal of Molecular Sciences</i> , 2014, 15, 20413-20433.	1.8	11

#	ARTICLE	IF	CITATIONS
210	Dynamic imaging of cytosolic zinc in <i>A. rabidopsis</i> roots combining FRET sensors and RootChip technology. <i>New Phytologist</i> , 2014, 202, 198-208.	3.5	69
211	The staphylococcal elastin-binding protein regulates zinc-dependent growth/biofilm formation. <i>Journal of Biochemistry</i> , 2014, 156, 155-162.	0.9	18
212	NMR investigations of metal interactions with unstructured soluble protein domains. <i>Coordination Chemistry Reviews</i> , 2014, 269, 1-12.	9.5	33
213	Cadmium exposure affects iron acquisition in barley (<i>Hordeum vulgare</i>) seedlings. <i>Physiologia Plantarum</i> , 2014, 152, 646-659.	2.6	36
214	Expression of peanut Iron Regulated Transporter 1 in tobacco and rice plants confers improved iron nutrition. <i>Plant Physiology and Biochemistry</i> , 2014, 80, 83-89.	2.8	24
215	Improvement of Crops in the Era of Climatic Changes. , 2014, , .		12
216	The specificity of interaction of Zn ²⁺ , Ni ²⁺ and Cu ²⁺ ions with the histidine-rich domain of the TjZNT1 ZIP family transporter. <i>Dalton Transactions</i> , 2014, 43, 10215-10223.	1.6	29
217	Polarization of IRON-REGULATED TRANSPORTER 1 (IRT1) to the plant-soil interface plays crucial role in metal homeostasis. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 8293-8298.	3.3	229
218	The Families of Zinc (SLC30 and SLC39) and Copper (SLC31) Transporters. <i>Current Topics in Membranes</i> , 2014, 73, 321-355.	0.5	61
219	Nutrient accumulation in leaves of Fe-deficient cucumber plants treated with natural Fe complexes. <i>Biology and Fertility of Soils</i> , 2014, 50, 973-982.	2.3	47
220	Gene Expression Differences between <i>Noccaea caerulescens</i> Ecotypes Help to Identify Candidate Genes for Metal Phytoremediation. <i>Environmental Science & Technology</i> , 2014, 48, 3344-3353.	4.6	106
221	OPT3 Is a Component of the Iron-Signaling Network between Leaves and Roots and Misregulation of OPT3 Leads to an Over-Accumulation of Cadmium in Seeds. <i>Molecular Plant</i> , 2014, 7, 1455-1469.	3.9	135
222	Proteomic analysis of <i>Populus euramericana</i> (clone I-214) roots to identify key factors involved in zinc stress response. <i>Journal of Plant Physiology</i> , 2014, 171, 1054-1063.	1.6	19
223	ZIPCO, a putative metal ion transporter, is crucial for <i>Plasmodium</i> liver stage development. <i>EMBO Molecular Medicine</i> , 2014, 6, 1387-1397.	3.3	27
225	Cd accumulation potential as a marker for heavy metal tolerance in soybean. <i>Israel Journal of Plant Sciences</i> , 2015, 62, 160-166.	0.3	8
226	Uptake of Heavy Metals. , 2015, , 91-111.		2
227	Iron deficiency stress can induce MxNRAMP1 protein endocytosis in <i>M. xiaojinensis</i> . <i>Gene</i> , 2015, 567, 225-234.	1.0	9
228	Genomewide association study of <i>Aegilops tauschii</i> traits under seedling-stage cadmium stress. <i>Crop Journal</i> , 2015, 3, 405-415.	2.3	18

#	ARTICLE	IF	CITATIONS
229	Genetic Manipulation in Plants for Mitigation of Climate Change. , 2015, , .		2
230	Engineered Plants for Heavy Metals and Metalloids Tolerance. , 2015, , 143-168.		3
231	Characterization of the Histidine-Rich Loop of Arabidopsis Vacuolar Membrane Zinc Transporter AtMTP1 as a Sensor of Zinc Level in the Cytosol. Plant and Cell Physiology, 2015, 56, 510-519.	1.5	26
232	Molecular mechanisms governing Arabidopsis iron uptake. Trends in Plant Science, 2015, 20, 124-133.	4.3	281
233	Sequence Analysis and Gene Expression of Potential Components of Copper Transport and Homeostasis in <i>Thalassiosira pseudonana</i> . Protist, 2015, 166, 58-77.	0.6	30
234	Quantitative proteomics of Arabidopsis shoot microsomal proteins reveals a cross-talk between excess zinc and iron deficiency. Proteomics, 2015, 15, 1196-1201.	1.3	38
235	<scp><i>Li</i>ZIP</scp>3 is a cellular zinc transporter that mediates the tightly regulated import of zinc in <scp><i>L</i></scp><i>eishmania infantum</i> parasites. Molecular Microbiology, 2015, 96, 581-595.	1.2	16
236	Xylem transport and gene expression play decisive roles in cadmium accumulation in shoots of two oilseed rape cultivars (<i>Brassica napus</i>). Chemosphere, 2015, 119, 1217-1223.	4.2	101
237	Should we treat the ionome as a combination of individual elements, or should we be deriving novel combined traits?. Journal of Experimental Botany, 2015, 66, 2127-2131.	2.4	98
238	Getting to the root of plant iron uptake and cell-cell transport: Polarity matters!. Communicative and Integrative Biology, 2015, 8, e1038441.	0.6	12
239	Shoot ionome to predict the synergism and antagonism between nutrients as affected by substrate and physiological status. Plant Physiology and Biochemistry, 2015, 94, 48-56.	2.8	91
240	Regulation of Nutrient Uptake by Plants. , 2015, , .		39
241	Growth inhibition and IRT1 induction of <i>Arabidopsis thaliana</i> in response to bismuth. Journal of Plant Biology, 2015, 58, 311-317.	0.9	10
242	Functional characterization of a transition metal ion transporter, OsZIP6 from rice (<i>Oryza sativa</i> L.). Plant Physiology and Biochemistry, 2015, 97, 165-174.	2.8	74
243	Two iron-regulated transporter (IRT) genes showed differential expression in poplar trees under iron or zinc deficiency. Journal of Plant Physiology, 2015, 186-187, 59-67.	1.6	17
244	Over-expression of the MxIRT1 gene increases iron and zinc content in rice seeds. Transgenic Research, 2015, 24, 109-122.	1.3	90
245	Expression of the ZNT1 Zinc Transporter from the Metal Hyperaccumulator <i>Noccaea caerulea</i> Confers Enhanced Zinc and Cadmium Tolerance and Accumulation to <i>Arabidopsis thaliana</i> . PLoS ONE, 2016, 11, e0149750.	1.1	80
246	Role of Silicon Counteracting Cadmium Toxicity in Alfalfa (<i>Medicago sativa</i> L.). Frontiers in Plant Science, 2016, 7, 1117.	1.7	72

#	ARTICLE	IF	CITATIONS
247	Microbial Ecology at Rhizosphere: Bioengineering and Future Prospective. , 2016, , 63-96.		8
248	Bio-recovery of non-essential heavy metals by intra- and extracellular mechanisms in free-living microorganisms. Biotechnology Advances, 2016, 34, 859-873.	6.0	111
249	Defense mechanisms and nutrient displacement in Arabidopsis thaliana upon exposure to CeO ₂ and In ₂ O ₃ nanoparticles. Environmental Science: Nano, 2016, 3, 1369-1379.	2.2	131
250	Phytoremediation of Heavy Metals Contaminated Soils Through Transgenic Plants. , 2016, , 345-391.		4
252	Zinc Homeostasis at the Bacteria/Host Interface”From Coordination Chemistry to Nutritional Immunity. Chemistry - A European Journal, 2016, 22, 15992-16010.	1.7	66
253	The ratio of Zn to Cd supply as a determinant of metal-homeostasis gene expression in tobacco and its modulation by overexpressing the metal exporter ATHMA4. Journal of Experimental Botany, 2016, 67, 6201-6214.	2.4	38
254	Structural insights of ZIP4 extracellular domain critical for optimal zinc transport. Nature Communications, 2016, 7, 11979.	5.8	65
255	Plant Hormones under Challenging Environmental Factors. , 2016, , .		17
256	Use of Phytohormones for Strengthening Metal(loid) Phytoextraction: Limitations and a Case Study. , 2016, , 157-179.		0
257	NOD promoter-controlled AtIRT1 expression functions synergistically with NAS and FERRITIN genes to increase iron in rice grains. Plant Molecular Biology, 2016, 90, 207-215.	2.0	72
258	Heterogeneity in the genetic alterations and in the clinical presentation of acrodermatitis enteropathic: Case report and review of the literature. International Journal of Immunopathology and Pharmacology, 2016, 29, 274-279.	1.0	6
259	Uninhibited biosynthesis and release of phytosiderophores in the presence of heavy metal (HM) favors HM remediation. Environmental Science and Pollution Research, 2017, 24, 9407-9416.	2.7	18
260	Sequence and coexpression analysis of iron-regulated ZIP transporter genes reveals crossing points between iron acquisition strategies in green algae and land plants. Plant and Soil, 2017, 418, 61-73.	1.8	22
262	Tolerance Response Mechanisms to Iron Deficiency Stress in Citrus Plants. , 2017, , 201-239.		1
263	Genome-wide identification, in silico characterization and expression analysis of ZIP-like genes from Trichomonas vaginalis in response to Zinc and Iron. BioMetals, 2017, 30, 663-675.	1.8	10
264	Remediation of cadmium toxicity in field peas (Pisum sativum L.) through exogenous silicon. Ecotoxicology and Environmental Safety, 2017, 135, 165-172.	2.9	91
265	Genetic variation in cadmium tolerance is related to transport and antioxidant activities in field peas (<i>Pisum sativum</i> L.). Archives of Agronomy and Soil Science, 2017, 63, 578-585.	1.3	10
266	Progress and Challenges in Improving Nutritional Quality in Wheat. , 2017, , .		2

#	ARTICLE	IF	CITATIONS
267	Genome-Wide Identification, Cloning and Functional Analysis of the Zinc/Iron-Regulated Transporter-Like Protein (ZIP) Gene Family in Trifoliolate Orange (<i>Poncirus trifoliata</i> L. Raf.). <i>Frontiers in Plant Science</i> , 2017, 8, 588.	1.7	55
268	Multilevel Regulation of Abiotic Stress Responses in Plants. <i>Frontiers in Plant Science</i> , 2017, 8, 1564.	1.7	149
269	Induced Mutagenesis in UGT74S1 Gene Leads to Stable New Flax Lines with Altered Secoisolariciresinol Diglucoside (SDG) Profiles. <i>Frontiers in Plant Science</i> , 2017, 8, 1638.	1.7	10
270	Metal Transporters in Neurodegeneration. , 2017, , 313-347.		1
271	Quantitative Models for Microscopic to Macroscopic Biological Macromolecules and Tissues. , 2018, , .		3
272	Zinc Efflux in <i>Trichomonas vaginalis</i> : In Silico Identification and Expression Analysis of CDF-Like Genes. , 2018, , 149-168.		1
273	Differential effects of iron starvation and iron excess on nickel uptake kinetics in two Iranian nickel hyperaccumulators, <i>Odontarrhena bracteata</i> and <i>Odontarrhena inflata</i> . <i>Plant and Soil</i> , 2018, 428, 153-162.	1.8	11
274	Metal Sensing by the IRT1 Transporter-Receptor Orchestrates Its Own Degradation and Plant Metal Nutrition. <i>Molecular Cell</i> , 2018, 69, 953-964.e5.	4.5	231
275	Functional analysis RaZIP1 transporter of the ZIP family from the ectomycorrhizal Zn-accumulating <i>Russula atropurpurea</i> . <i>BioMetals</i> , 2018, 31, 255-266.	1.8	13
276	Physiology and Molecular Biology of Trace Element Hyperaccumulation. <i>Mineral Resource Reviews</i> , 2018, , 93-116.	1.5	17
278	Nutrient availability in the rhizosphere: a review. <i>Acta Horticulturae</i> , 2018, , 13-28.	0.1	23
279	<i>Arabidopsis</i> and rice showed a distinct pattern in ZIPs genes expression profile in response to Cd stress. , 2018, 59, 22.		57
280	Cellular Fractionation and Nanoscopic X-Ray Fluorescence Imaging Analyses Reveal Changes of Zinc Distribution in Leaf Cells of Iron-Deficient Plants. <i>Frontiers in Plant Science</i> , 2018, 9, 1112.	1.7	29
281	Contribution of NtZIP1-Like to the Regulation of Zn Homeostasis. <i>Frontiers in Plant Science</i> , 2018, 9, 185.	1.7	24
282	Can Selenium and Molybdenum Restrain Cadmium Toxicity to Pollen Grains in <i>Brassica napus</i> ?. <i>International Journal of Molecular Sciences</i> , 2018, 19, 2163.	1.8	58
283	Acquisition and Homeostasis of Iron in Higher Plants and Their Probable Role in Abiotic Stress Tolerance. <i>Frontiers in Environmental Science</i> , 0, 5, .	1.5	128
284	The zinc-regulated protein (ZIP) family genes and glutathione s-transferase (GST) family genes play roles in Cd resistance and accumulation of pak choi (<i>Brassica campestris</i> ssp. <i>chinensis</i>). <i>Ecotoxicology and Environmental Safety</i> , 2019, 183, 109571.	2.9	23
285	Mitochondrial Iron Transporters (MIT1 and MIT2) Are Essential for Iron Homeostasis and Embryogenesis in <i>Arabidopsis thaliana</i> . <i>Frontiers in Plant Science</i> , 2019, 10, 1449.	1.7	34

#	ARTICLE	IF	CITATIONS
286	Comparative transcriptome analysis reveals key genes responsible for the homeostasis of iron and other divalent metals in peanut roots under iron deficiency. <i>Plant and Soil</i> , 2019, 445, 513-531.	1.8	6
287	Microbe-Mediated Mitigation of Cadmium Toxicity in Plants. , 2019, , 427-449.		18
288	Cadmium in plants: uptake, toxicity, and its interactions with selenium fertilizers. <i>Metallomics</i> , 2019, 11, 255-277.	1.0	386
289	The Adaptive Mechanism of Plants to Iron Deficiency via Iron Uptake, Transport, and Homeostasis. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2424.	1.8	135
290	Reverse Genetics of IRT1, or How to Catch an Iron Transporter and Pin It Down. <i>Plant Cell</i> , 2019, 31, 1200-1201.	3.1	1
291	Calcium-Promoted Interaction between the C2-Domain Protein EHB1 and Metal Transporter IRT1 Inhibits Arabidopsis Iron Acquisition. <i>Plant Physiology</i> , 2019, 180, 1564-1581.	2.3	33
292	The transport of essential micronutrients in rice. <i>Molecular Breeding</i> , 2019, 39, 1.	1.0	25
293	An extracellular histidine-containing motif in the zinc transporter ZIP4 plays a role in zinc sensing and zinc-induced endocytosis in mammalian cells. <i>Journal of Biological Chemistry</i> , 2019, 294, 2815-5640.	1.6	17
294	Biochar properties and soil type drive the uptake of macro- and micronutrients in maize (<i>Zea mays</i>) Tj ETQq0 0.0 mgBT /Overlock 10	1.1	25
295	Cadmium tolerance is associated with the root-driven coordination of cadmium sequestration, iron regulation, and ROS scavenging in rice. <i>Plant Physiology and Biochemistry</i> , 2019, 136, 22-33.	2.8	58
296	Transcriptome analysis revealed pivotal transporters involved in the reduction of cadmium accumulation in pak choi (<i>Brassica chinensis</i> L.) by exogenous hydrogen-rich water. <i>Chemosphere</i> , 2019, 216, 684-697.	4.2	46
297	A tillering application of zinc fertilizer based on basal stabilization reduces Cd accumulation in rice (<i>Oryza sativa</i> L.). <i>Ecotoxicology and Environmental Safety</i> , 2019, 167, 338-344.	2.9	45
298	Physiological and molecular mechanisms of heavy metal accumulation in nonmycorrhizal versus mycorrhizal plants. <i>Plant, Cell and Environment</i> , 2019, 42, 1087-1103.	2.8	113
299	A transcription factor OsbHLH156 regulates Strategy II iron acquisition through localising IRO2 to the nucleus in rice. <i>New Phytologist</i> , 2020, 225, 1247-1260.	3.5	71
300	Regulation of cadmium tolerance and accumulation by miR156 in Arabidopsis. <i>Chemosphere</i> , 2020, 242, 125168.	4.2	48
301	Visible cellular distribution of cadmium and zinc in the hyperaccumulator <i>Arabidopsis halleri</i> ssp. <i>gemmifera</i> determined by 2-D X-ray fluorescence imaging using high-energy synchrotron radiation. <i>Metallomics</i> , 2020, 12, 193-203.	1.0	16
302	Molecular characterization of ten zinc (Zn) transporter genes and their regulation to Zn metabolism in freshwater teleost yellow catfish <i>Pelteobagrus fulvidraco</i> . <i>Journal of Trace Elements in Medicine and Biology</i> , 2020, 59, 126433.	1.5	14
303	Molecular Basis of Zinc-Dependent Endocytosis of Human ZIP4 Transceptor. <i>Cell Reports</i> , 2020, 31, 107582.	2.9	28

#	ARTICLE	IF	CITATIONS
304	Evolution of Abscisic Acid Signaling for Stress Responses to Toxic Metals and Metalloids. <i>Frontiers in Plant Science</i> , 2020, 11, 909.	1.7	68
305	Methyl 3-(4-hydroxyphenyl) propionate modulates plant growth and secondary metabolite accumulation by inducing metabolic changes in <i>Perilla frutescens</i> . <i>Plant and Soil</i> , 2020, 453, 577-593.	1.8	3
306	Low-molecular-weight ligands in plants: role in metal homeostasis and hyperaccumulation. <i>Photosynthesis Research</i> , 2021, 150, 51-96.	1.6	37
307	Cadmium toxicity in cowpea plant: Effect of foliar intervention of nano-TiO ₂ on tissue Cd bioaccumulation, stress enzymes and potential dietary health risk. <i>Journal of Biotechnology</i> , 2020, 310, 54-61.	1.9	67
308	Transcriptome Response of Metallicolous and a Non-Metallicolous Ecotypes of <i>Noccea goesingensis</i> to Nickel Excess. <i>Plants</i> , 2020, 9, 951.	1.6	2
309	Dynamic Control of the High-Affinity Iron Uptake Complex in Root Epidermal Cells. <i>Plant Physiology</i> , 2020, 184, 1236-1250.	2.3	68
310	Identification and functional characterization of ABCC transporters for Cd tolerance and accumulation in <i>Sedum alfredii</i> Hance. <i>Scientific Reports</i> , 2020, 10, 20928.	1.6	14
311	Biomolecular approaches to understanding metal tolerance and hyperaccumulation in plants. <i>Metallomics</i> , 2020, 12, 840-859.	1.0	37
312	The root iron transporter 1 governs cadmium uptake in <i>Vicia sativa</i> roots. <i>Journal of Hazardous Materials</i> , 2020, 398, 122873.	6.5	35
313	Volatiles from the fungal phytopathogen <i>Penicillium aurantiogriseum</i> modulate root metabolism and architecture through proteome resetting. <i>Plant, Cell and Environment</i> , 2020, 43, 2551-2570.	2.8	19
314	di-Cysteine Residues of the <i>Arabidopsis thaliana</i> HMA4 C-Terminus Are Only Partially Required for Cadmium Transport. <i>Frontiers in Plant Science</i> , 2020, 11, 560.	1.7	14
315	Transcription factors and transporters in zinc homeostasis: lessons learned from fungi. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2020, 55, 88-110.	2.3	30
316	Zn/Cd status-dependent accumulation of Zn and Cd in root parts in tobacco is accompanied by specific expression of ZIP genes. <i>BMC Plant Biology</i> , 2020, 20, 37.	1.6	33
317	Elucidating the H ⁺ Coupled Zn ²⁺ Transport Mechanism of ZIP4; Implications in Acrodermatitis Enteropathica. <i>International Journal of Molecular Sciences</i> , 2020, 21, 734.	1.8	24
318	The Role of Selective Protein Degradation in the Regulation of Iron and Sulfur Homeostasis in Plants. <i>International Journal of Molecular Sciences</i> , 2020, 21, 2771.	1.8	11
319	ZINC TRANSPORTER5 and ZINC TRANSPORTER9 Function Synergistically in Zinc/Cadmium Uptake. <i>Plant Physiology</i> , 2020, 183, 1235-1249.	2.3	132
320	IRONing out stress problems in crops: a homeostatic perspective. <i>Physiologia Plantarum</i> , 2021, 171, 559-577.	2.6	8
321	Zinc homeostasis and signaling in the roundworm <i>C. elegans</i> . <i>Biochimica Et Biophysica Acta - Molecular Cell Research</i> , 2021, 1868, 118882.	1.9	10

#	ARTICLE	IF	CITATIONS
322	The many facets of protein ubiquitination and degradation in plant root iron-deficiency responses. <i>Journal of Experimental Botany</i> , 2021, 72, 2071-2082.	2.4	28
323	Delineating the future of iron biofortification studies in rice: challenges and future perspectives. <i>Journal of Experimental Botany</i> , 2021, 72, 2099-2113.	2.4	16
324	Endocytosis in plants: Peculiarities and roles in the regulated trafficking of plant metal transporters. <i>Biology of the Cell</i> , 2021, 113, 1-13.	0.7	19
325	Managing cadmium in agricultural systems. <i>Advances in Agronomy</i> , 2021, 166, 1-129.	2.4	57
326	IRT1 and ZIP2 were involved in exogenous hydrogen-rich water-reduced cadmium accumulation in <i>Brassica chinensis</i> and <i>Arabidopsis thaliana</i> . <i>Journal of Hazardous Materials</i> , 2021, 407, 124599.	6.5	32
327	Identification of a new function of metallothionein-like gene <i>OsMT1e</i> for cadmium detoxification and potential phytoremediation. <i>Chemosphere</i> , 2021, 265, 129136.	4.2	57
328	Toward unzipping the ZIP metal transporters: structure, evolution, and implications on drug discovery against cancer. <i>FEBS Journal</i> , 2021, 288, 5805-5825.	2.2	39
329	Interrelations of nutrient and water transporters in plants under abiotic stress. <i>Physiologia Plantarum</i> , 2021, 171, 595-619.	2.6	37
330	Iron homeostasis in plants and its crosstalk with copper, zinc, and manganese. <i>Plant Stress</i> , 2021, 1, 100008.	2.7	100
331	Role of ABC transporters and other vacuolar transporters during heavy metal stress in plants. , 2021, , 55-76.		2
333	The effect of endophytic fungi on growth and nickel accumulation in <i>Noccaea hyperaccumulators</i> . <i>Science of the Total Environment</i> , 2021, 768, 144666.	3.9	19
334	A path toward concurrent biofortification and cadmium mitigation in plant-based foods. <i>New Phytologist</i> , 2021, 232, 17-24.	3.5	9
335	Differences in mineral accumulation and gene expression profiles between two metal hyperaccumulators, <i>Noccaea japonica</i> and <i>Noccaea caerulescens</i> ecotype Ganges, under excess nickel condition. <i>Plant Signaling and Behavior</i> , 2021, 16, 1945212.	1.2	1
336	Long-term acclimation to cadmium exposure reveals extensive phenotypic plasticity in <i>Chlamydomonas</i> . <i>Plant Physiology</i> , 2021, 187, 1653-1678.	2.3	7
337	Medical Plant Extract Purification from Cadmium(II) Using Modified Thermoplastic Starch and Ion Exchangers. <i>Materials</i> , 2021, 14, 4734.	1.3	3
338	Translocation of Ni and Zn in <i>Odontarrhena corsica</i> and <i>Noccaea caerulescens</i> : the effects of exogenous histidine and Ni/Zn interactions. <i>Plant and Soil</i> , 2021, 468, 295-318.	1.8	9
339	Dynamics of environmental pollution, socio-economic factors and total fertility rate in MENA, ECOWAS and ASEAN regions. <i>Health Care for Women International</i> , 2021, , 1-23.	0.6	2
340	Does the exudation of coumarins from Fe-deficient, soil-grown Brassicaceae species play a significant role in plant Fe nutrition?. <i>Rhizosphere</i> , 2021, 19, 100410.	1.4	7

#	ARTICLE	IF	CITATIONS
341	A quick journey into the diversity of iron uptake strategies in photosynthetic organisms. <i>Plant Signaling and Behavior</i> , 2021, 16, 1975088.	1.2	11
342	TpIRT1 from Polish wheat (<i>Triticum polonicum</i> L.) enhances the accumulation of Fe, Mn, Co, and Cd in <i>Arabidopsis</i> . <i>Plant Science</i> , 2021, 312, 111058.	1.7	18
343	The Role of ZIP Family Members in Iron Transport. , 2006, , 311-326.		8
344	Role of FRD3 in Iron Translocation and Homeostasis. , 2006, , 327-339.		1
345	Transgenic Approaches for Phytoextraction of Heavy Metals. , 2014, , 57-80.		5
346	Physiology and Molecular Biology of Trace Element Hyperaccumulation. <i>Mineral Resource Reviews</i> , 2021, , 155-181.	1.5	9
347	Reactive Oxygen Species and Signaling in Cadmium Toxicity. <i>Signaling and Communication in Plants</i> , 2009, , 175-189.	0.5	43
348	Heavy Metals as Essential Nutrients. , 2004, , 271-294.		18
349	Sulfate Uptake and Assimilation – Whole Plant Regulation. , 2012, , 11-24.		6
350	Eukaryotic zinc transporters and their regulation. , 2001, , 65-84.		13
351	Gene networks involved in iron acquisition strategies in plants. <i>Agronomy for Sustainable Development</i> , 2003, 23, 447-454.	0.8	23
353	Comparative Genomic Analysis of slc39a12/ZIP12: Insight into a Zinc Transporter Required for Vertebrate Nervous System Development. <i>PLoS ONE</i> , 2014, 9, e111535.	1.1	17
354	Uptake and Accumulation of Cadmium and Relative Gene Expression in Roots of Cd-resistant <i>Salix matsudana</i> Koidz. <i>Polish Journal of Environmental Studies</i> , 2016, 25, 2717-2723.	0.6	4
355	Identification of Ftr1 and Zrt1 as iron and zinc micronutrient transceptors for activation of the PKA pathway in <i>Saccharomyces cerevisiae</i> . <i>Microbial Cell</i> , 2017, 4, 74-89.	1.4	47
356	Transport and detoxification of manganese and copper in plants. <i>Brazilian Journal of Plant Physiology</i> , 2005, 17, 103-112.	0.5	256
358	Functional Analysis of NtZIP4B and Zn Status-Dependent Expression Pattern of Tobacco ZIP Genes. <i>Frontiers in Plant Science</i> , 2018, 9, 1984.	1.7	23
359	Activity of Antioxidant Enzymes in Response to Cadmium in <i>Arabidopsis thaliana</i> . <i>Journal of Biological Sciences</i> , 2008, 9, 44-50.	0.1	26
360	Involvement of <i>Arabidopsis</i> Multi-Copper Oxidase-Encoding LACCASE12 in Root-to-Shoot Iron Partitioning: A Novel Example of Copper-Iron Crosstalk. <i>Frontiers in Plant Science</i> , 2021, 12, 688318.	1.7	8

#	ARTICLE	IF	CITATIONS
361	Zinc Uptake and Shoot Partitioning Between Zinc Efficient and Inefficient Exacum Genotypes. Journal of the American Society for Horticultural Science, 2005, 130, 674-679.	0.5	0
362	Root Membrane Activities Relevant to Nutrient Acquisition at the Plant–Soil Interface. Books in Soils, Plants, and the Environment, 2007, , 151-172.	0.1	0
363	Metal Transport. Plant Cell Monographs, 2011, , 303-330.	0.4	0
364	Identification and Sequence Analysis of Sulfate/Selenate Transporters in Selenium Hyper- and Non-accumulating Astragalus Plant Species. , 2012, , 155-162.		1
365	Remediation of arsenic-concentrated waters in a highly urbanized Nigerian city. , 2013, , .		1
366	Research Progress on the Protections of Zinc on the Cell Damage. Hans Journal of Food and Nutrition Science, 2014, 03, 57-63.	0.0	0
367	Molecular and Physiological Investigations of <i>Thlaspi caerulescens</i> L.. Agronomy, 0, , 95-106.	0.2	0
368	Interection of silicon on heavy metal and other stresses in crop plants. Agriculture Update, 2017, 12, 883-887.	0.0	0
369	Absorption of cadmium accompanied by EDTA varies according to tomato cultivar. Crop and Pasture Science, 2019, 70, 981.	0.7	1
370	The Mechanisms of Trace Element Uptake and Transport Up To Grains of Crop Plants. , 2020, , 119-133.		4
371	Heavy Metal–Induced Gene Expression in Plants. , 2020, , 143-173.		5
373	HRM and CRAC in MxIRT1 act as iron sensors to determine MxIRT1 vesicle-PM fusion and metal transport. Plant Signaling and Behavior, 2022, 17, 2005881.	1.2	3
374	Root–shoot iron partitioning in Arabidopsis requires IRON–REGULATED TRANSPORTER1 (IRT1) protein but not its iron(II) transport function. Plant Journal, 2021, , .	2.8	18
375	The molecular basis of zinc homeostasis in cereals. Plant, Cell and Environment, 2022, 45, 1339-1361.	2.8	14
376	Role of natural resistance-associated macrophage proteins in metal ion transport in plants. , 2022, , 337-356.		2
377	Mediation of Zinc and Iron Accumulation in Maize by ZmIRT2, a Novel Iron-Regulated Transporter. Plant and Cell Physiology, 2022, 63, 521-534.	1.5	10
379	Effects of Fe and Mn Deficiencies on the Root Protein Profiles of Tomato (<i>Solanum lycopersicum</i>) Using Two-Dimensional Electrophoresis and Label-Free Shotgun Analyses. International Journal of Molecular Sciences, 2022, 23, 3719.	1.8	5
380	Primary nutrient sensors in plants. IScience, 2022, 25, 104029.	1.9	14

#	ARTICLE	IF	CITATIONS
398	Identification of Zinc Efficiency-Associated Loci (ZEALs) and Candidate Genes for Zn Deficiency Tolerance of Two Recombination Inbred Line Populations in Maize. <i>International Journal of Molecular Sciences</i> , 2022, 23, 4852.	1.8	6
399	Physiological Mechanism of Exogenous 5-Aminolevulinic Acid Improved the Tolerance of Chinese Cabbage (<i>Brassica pekinensis</i> L.) to Cadmium Stress. <i>Frontiers in Plant Science</i> , 2022, 13, .	1.7	5
400	Nickel Tolerance and Accumulation Capacities in Different Populations of the Hyperaccumulator <i>Noccaea caerulea</i> . <i>Russian Journal of Plant Physiology</i> , 2022, 69, .	0.5	2
402	Iron Source and Medium pH Affect Nutrient Uptake and Pigment Content in <i>Petunia hybrida</i> "Madness Red" Cultured In Vitro. <i>International Journal of Molecular Sciences</i> , 2022, 23, 8943.	1.8	4
403	ZAT10 plays dual roles in cadmium uptake and detoxification in <i>Arabidopsis</i> . <i>Frontiers in Plant Science</i> , 0, 13, .	1.7	15
405	Transgenics and Crop Improvement. , 2022, , 131-347.		0
406	The vacuolar transporter<sc>LaMTP8</sc>.1 detoxifies manganese in leaves of<i>Lupinus albus</i>. <i>Physiologia Plantarum</i> , 2022, 174, .	2.6	2
407	Differential metal sensing and metalâ€dependent degradation of the broad spectrum root metal transporter <sc>IRT1</sc>. <i>Plant Journal</i> , 2022, 112, 1252-1265.	2.8	7
408	Birth, life and death of the <i>Arabidopsis</i> IRT1 iron transporter: the role of close friends and foes. <i>Planta</i> , 2022, 256, .	1.6	4
409	Ferrous iron uptake via <sc>IRT1</sc>/<sc>ZIP</sc> evolved at least twice in green plants. <i>New Phytologist</i> , 2023, 237, 1951-1961.	3.5	6
411	Diversity and expression analysis of ZIP transporters and associated metabolites under zinc and iron stress in <i>Capsicum</i> . <i>Plant Physiology and Biochemistry</i> , 2023, 196, 415-430.	2.8	3
412	Biofortification to avoid malnutrition in humans in a changing climate: Enhancing micronutrient bioavailability in seed, tuber, and storage roots. <i>Frontiers in Plant Science</i> , 0, 14, .	1.7	7
414	Cadmium Transport in Maize Root Segments Using a Classical Physiological Approach: Evidence of Influx Largely Exceeding Efflux in Subapical Regions. <i>Plants</i> , 2023, 12, 992.	1.6	1
415	The road toward Cd-safe rice: From mass selection to marker-assisted selection and genetic manipulation. <i>Crop Journal</i> , 2023, , .	2.3	2
416	Comparative transcriptomic and metabolite profiling reveals genotypeâ€specific responses to Fe starvation in chickpea. <i>Physiologia Plantarum</i> , 2023, 175, .	2.6	2
417	Considerations in production of the prokaryotic ZIP family transporters for structural and functional studies. <i>Methods in Enzymology</i> , 2023, , 1-30.	0.4	0
421	Expression, purification, crystallization of a ZIP metal transporter from <i>Bordetella bronchiseptica</i> (BbZIP). <i>Methods in Enzymology</i> , 2023, , 31-48.	0.4	0
422	Imaging and Quantifying the Endocytosis of IRON-REGULATED TRANSPORTER1 from <i>Arabidopsis</i> . <i>Methods in Molecular Biology</i> , 2023, , 63-73.	0.4	0

#	ARTICLE	IF	CITATIONS
---	---------	----	-----------