David E Salt

List of Publications by Year
in descending order

85 papers	10,773 citations	57631 44 h-index	54797 84 g-index
93 all docs	93 docs citations	93 times ranked	10536 citing authors

#	Article	IF	Citations
1	Genome-wide association study of 107 phenotypes in Arabidopsis thaliana inbred lines. Nature, 2010, 465, 627-631.	13.7	1,651
2	Reduction and Coordination of Arsenic in Indian Mustard. Plant Physiology, 2000, 122, 1171-1178.	2.3	525
3	Ionomics and the Study of the Plant Ionome. Annual Review of Plant Biology, 2008, 59, 709-733.	8.6	480
4	Genomic scale profiling of nutrient and trace elements in Arabidopsis thaliana. Nature Biotechnology, 2003, 21, 1215-1221.	9.4	407
5	A Coastal Cline in Sodium Accumulation in Arabidopsis thaliana Is Driven by Natural Variation of the Sodium Transporter AtHKT1;1. PLoS Genetics, 2010, 6, e1001193.	1.5	317
6	Polyploids Exhibit Higher Potassium Uptake and Salinity Tolerance in <i>Arabidopsis</i>. Science, 2013, 341, 658-659.	6.0	298
7	The Ferroportin Metal Efflux Proteins Function in Iron and Cobalt Homeostasis in <i>Arabidopsis</i> Â Â. Plant Cell, 2009, 21, 3326-3338.	3.1	290
8	Natural Variants of AtHKT1 Enhance Na+ Accumulation in Two Wild Populations of Arabidopsis. PLoS Genetics, 2006, 2, e210.	1.5	279
9	Root Suberin Forms an Extracellular Barrier That Affects Water Relations and Mineral Nutrition in Arabidopsis. PLoS Genetics, 2009, 5, e1000492.	1.5	277
10	Dirigent domain-containing protein is part of the machinery required for formation of the lignin-based Casparian strip in the root. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 14498-14503.	3.3	269
11	The MYB36 transcription factor orchestrates Casparian strip formation. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 10533-10538.	3.3	251
12	Variation in Molybdenum Content Across Broadly Distributed Populations of Arabidopsis thaliana Is Controlled by a Mitochondrial Molybdenum Transporter (MOT1). PLoS Genetics, 2008, 4, e1000004.	1.5	233
13	Genome Wide Association Mapping of Grain Arsenic, Copper, Molybdenum and Zinc in Rice (Oryza) Tj ETQq1 1 0.784314 rgBT /Overl	1.1	228
14	Genome-wide Association Mapping Identifies a New Arsenate Reductase Enzyme Critical for Limiting Arsenic Accumulation in Plants. PLoS Biology, 2014, 12, e1002009.	2.6	227
15	Genome-Wide Association Studies Identify Heavy Metal ATPase3 as the Primary Determinant of Natural Variation in Leaf Cadmium in Arabidopsis thaliana. PLoS Genetics, 2012, 8, e1002923.	1.5	224
16	A Novel Arsenate Reductase from the Arsenic Hyperaccumulating Fern Pteris vittata. Plant Physiology, 2006, 141, 1544-1554.	2.3	217
17	A receptor-like kinase mutant with absent endodermal diffusion barrier displays selective nutrient homeostasis defects. ELife, 2014, 3, e03115.	2.8	203
18	Mapping and validation of quantitative trait loci associated with concentrations of 16 elements in unmilled rice grain. Theoretical and Applied Genetics, 2014, 127, 137-165.	1.8	202

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19	OsHAC1;1 and OsHAC1;2 Function as Arsenate Reductases and Regulate Arsenic Accumulation. Plant Physiology, 2016, 172, 1708-1719.	2.3	200
20	Functional Association of Arabidopsis CAX1 and CAX3 Is Required for Normal Growth and Ion Homeostasis. Plant Physiology, 2005, 138, 2048-2060.	2.3	190
21	A heavy metal P-type ATPase OsHMA4 prevents copper accumulation in rice grain. Nature Communications, 2016, 7, 12138.	5.8	178
22	A lossâ€ofâ€function allele of <i>OsHMA3</i> associated with high cadmium accumulation in shoots and grain of <i>Japonica</i> rice cultivars. Plant, Cell and Environment, 2016, 39, 1941-1954.	2.8	168
23	Genome-Wide Association Studies Reveal the Genetic Basis of Ionomic Variation in Rice. Plant Cell, 2018, 30, 2720-2740.	3.1	164
24	Worldwide Genetic Diversity for Mineral Element Concentrations in Rice Grain. Crop Science, 2015, 55, 294-311.	0.8	159
25	Plant Ionomics: From Elemental Profiling to Environmental Adaptation. Molecular Plant, 2016, 9, 787-797.	3.9	159
26	Genetic and physiological basis of adaptive salt tolerance divergence between coastal and inland <i>Mimulus guttatus</i>. New Phytologist, 2009, 183, 776-788.	3.5	154
27	Borrowed alleles and convergence in serpentine adaptation. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 8320-8325.	3.3	147
28	BRUTUS and its paralogs, BTS LIKE1 and BTS LIKE2, encode important negative regulators of the iron deficiency response in Arabidopsis thaliana. Metallomics, 2017, 9, 876-890.	1.0	136
29	Coordination between microbiota and root endodermis supports plant mineral nutrient homeostasis. Science, 2021, 371, .	6.0	133
30	Purdue Ionomics Information Management System. An Integrated Functional Genomics Platform Â. Plant Physiology, 2007, 143, 600-611.	2.3	130
31	Variation in grain arsenic assessed in a diverse panel of rice (<i>Oryza sativa</i>) grown in multiple sites. New Phytologist, 2012, 193, 650-664.	3.5	126
32	Sphingolipids in the Root Play an Important Role in Regulating the Leaf Ionome in<i>Arabidopsis thaliana</i>Â Â. Plant Cell, 2011, 23, 1061-1081.	3.1	111
33	Role of LOTR1 in Nutrient Transport through Organization of Spatial Distribution of Root Endodermal Barriers. Current Biology, 2017, 27, 758-765.	1.8	98
34	Natural Variation for Nutrient Use and Remobilization Efficiencies in Switchgrass. Bioenergy Research, 2009, 2, 257-266.	2.2	82
35	Biodiversity of Mineral Nutrient and Trace Element Accumulation in Arabidopsis thaliana. PLoS ONE, 2012, 7, e35121.	1.1	82
36	Nuclear Localised MORE SULPHUR ACCUMULATION1 Epigenetically Regulates Sulphur Homeostasis in Arabidopsis thaliana. PLoS Genetics, 2016, 12, e1006298.	1.5	81

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37	Natural Genetic Variation in Selected Populations of Arabidopsis thaliana Is Associated with Ionomic Differences. PLoS ONE, 2010, 5, e11081.	1.1	78
38	<i>Arabidopsis</i> NPCC6/NaKR1 Is a Phloem Mobile Metal Binding Protein Necessary for Phloem Function and Root Meristem Maintenance Â. Plant Cell, 2011, 22, 3963-3979.	3.1	73
39	The Multi-allelic Genetic Architecture of a Variance-Heterogeneity Locus for Molybdenum Concentration in Leaves Acts as a Source of Unexplained Additive Genetic Variance. PLoS Genetics, 2015, 11, e1005648.	1.5	73
40	Variation in Sulfur and Selenium Accumulation Is Controlled by Naturally Occurring Isoforms of the Key Sulfur Assimilation Enzyme ADENOSINE 5â€²-PHOSPHOSULFATE REDUCTASE2 across the Arabidopsis Species Range Â Â. Plant Physiology, 2014, 166, 1593-1608.	2.3	64
41	Single-Kernel Ionomic Profiles Are Highly Heritable Indicators of Genetic and Environmental Influences on Elemental Accumulation in Maize Grain (Zea mays). PLoS ONE, 2014, 9, e87628.	1.1	64
42	Surveillance of cell wall diffusion barrier integrity modulates water and solute transport in plants. Scientific Reports, 2019, 9, 4227.	1.6	60
43	Suberin plasticity to developmental and exogenous cues is regulated by a set of MYB transcription factors. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	3.3	60
44	Dissecting the components controlling rootâ€toâ€shoot arsenic translocation in <i>Arabidopsis thaliana</i>. New Phytologist, 2018, 217, 206-218.	3.5	56
45	Root zoneâ€“specific localization of AMTs determines ammonium transport pathways and nitrogen allocation to shoots. PLoS Biology, 2018, 16, e2006024.	2.6	52
46	High-resolution genome-wide scan of genes, gene-networks and cellular systems impacting the yeast ionome. BMC Genomics, 2012, 13, 623.	1.2	48
47	Two chemically distinct root lignin barriers control solute and water balance. Nature Communications, 2021, 12, 2320.	5.8	48
48	Phytochelatin Synthesis Promotes Leaf Zn Accumulation of<i>Arabidopsis thaliana</i>Plants Grown in Soil with Adequate Zn Supply and is Essential for Survival on Zn-Contaminated Soil. Plant and Cell Physiology, 2016, 57, 2342-2352.	1.5	47
49	Mutation in <i>OsCADT1</i> enhances cadmium tolerance and enriches selenium in rice grain. New Phytologist, 2020, 226, 838-850.	3.5	45
50	Salinity Is an Agent of Divergent Selection Driving Local Adaptation of Arabidopsis to Coastal Habitats. Plant Physiology, 2015, 168, 915-929.	2.3	44
51	Fluctuating selection on migrant adaptive sodium transporter alleles in coastal <i>Arabidopsis thaliana</i>. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E12443-E12452.	3.3	44
52	Natural variation in a molybdate transporter controls grain molybdenum concentration in rice. New Phytologist, 2019, 221, 1983-1997.	3.5	44
53	A new vesicle trafficking regulator CTL1 plays a crucial role in ion homeostasis. PLoS Biology, 2017, 15, e2002978.	2.6	44
54	Elemental Profiling of Rice FOX Lines Leads to Characterization of a New Zn Plasma Membrane Transporter, OsZIP7. Frontiers in Plant Science, 2018, 9, 865.	1.7	41

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55	Hidden variation in polyploid wheat drives local adaptation. Genome Research, 2018, 28, 1319-1332.	2.4	41
56	Large-Scale Plant Ionomics. Methods in Molecular Biology, 2013, 953, 255-276.	0.4	39
57	Multi-element bioimaging of Arabidopsis thaliana roots. Plant Physiology, 2016, 172, pp.00770.2016.	2.3	38
58	Uclacyanin Proteins Are Required for Lignified Nanodomain Formation within Casparian Strips. Current Biology, 2020, 30, 4103-4111.e6.	1.8	38
59	Variation in the BrHMA3 coding region controls natural variation in cadmium accumulation in Brassica rapa vegetables. Journal of Experimental Botany, 2019, 70, 5865-5878.	2.4	36
60	Allelic Heterogeneity and Trade-Off Shape Natural Variation for Response to Soil Micronutrient. PLoS Genetics, 2012, 8, e1002814.	1.5	35
61	The Intensity of Manganese Deficiency Strongly Affects Root Endodermal Suberization and Ion Homeostasis. Plant Physiology, 2019, 181, 729-742.	2.3	35
62	Knocking Out ACR2 Does Not Affect Arsenic Redox Status in Arabidopsis thaliana: Implications for As Detoxification and Accumulation in Plants. PLoS ONE, 2012, 7, e42408.	1.1	34
63	Physiological roles of Casparian strips and suberin in the transport of water and solutes. New Phytologist, 2021, 232, 2295-2307.	3.5	33
64	Soil carbonate drives local adaptation in <scp><i>Arabidopsis thaliana</i></scp>. Plant, Cell and Environment, 2019, 42, 2384-2398.	2.8	29
65	Epigenetic regulation of sulfur homeostasis in plants. Journal of Experimental Botany, 2019, 70, 4171-4182.	2.4	28
66	1,135 ionomes reveal the global pattern of leaf and seed mineral nutrient and trace element diversity in <i>Arabidopsis thaliana</i>. Plant Journal, 2021, 106, 536-554.	2.8	26
67	Redundant roles of four ZIP family members in zinc homeostasis and seed development in <i>Arabidopsis thaliana</i>. Plant Journal, 2021, 108, 1162-1173.	2.8	24
68	Transcriptional plasticity buffers genetic variation in zinc homeostasis. Scientific Reports, 2019, 9, 19482.	1.6	23
69	Parallel adaptation in autopolyploid Arabidopsis arenosa is dominated by repeated recruitment of shared alleles. Nature Communications, 2021, 12, 4979.	5.8	22
70	Arabidopsis thaliana zinc accumulation in leaf trichomes is correlated with zinc concentration in leaves. Scientific Reports, 2021, 11, 5278.	1.6	21
71	Barley sodium content is regulated by natural variants of the Na+ transporter HvHKT1;5. Communications Biology, 2020, 3, 258.	2.0	21
72	AtHMA4 Drives Natural Variation in Leaf Zn Concentration of Arabidopsis thaliana. Frontiers in Plant Science, 2018, 9, 270.	1.7	20

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73	Non-invasive hydrodynamic imaging in plant roots at cellular resolution. Nature Communications, 2021, 12, 4682.	5.8	19
74	Elemental Concentrations in the Seed of Mutants and Natural Variants of Arabidopsis thaliana Grown under Varying Soil Conditions. PLoS ONE, 2013, 8, e63014.	1.1	19
75	A Novel Signaling Pathway Required for Arabidopsis Endodermal Root Organization Shapes the Rhizosphere Microbiome. Plant and Cell Physiology, 2021, 62, 248-261.	1.5	17
76	Managing Biological Data using bdbms. , 2008, , .		16
77	Targeted expression of the arsenate reductase HAC1 identifies cell type specificity of arsenic metabolism and transport in plant roots. Journal of Experimental Botany, 2021, 72, 415-425.	2.4	12
78	Would the real arsenate reductase please stand up?. New Phytologist, 2017, 215, 926-928.	3.5	11
79	Magnesium and calcium overaccumulate in the leaves of a<i>schengen3</i>mutant of<i>Brassica rapa</i>. Plant Physiology, 2021, 186, 1616-1631.	2.3	11
80	Noise reduction in genome-wide perturbation screens using linear mixed-effect models. Bioinformatics, 2011, 27, 2173-2180.	1.8	10
81	Univariate and Multivariate QTL Analyses Reveal Covariance Among Mineral Elements in the Rice Ionome. Frontiers in Genetics, 2021, 12, 638555.	1.1	10
82	Adaptation to coastal soils through pleiotropic boosting of ion and stress hormone concentrations in wild <i>Arabidopsis thaliana</i>. New Phytologist, 2021, 232, 208-220.	3.5	9
83	Phosphorylated B6 vitamer deficiency in SALT OVERLY SENSITIVE 4 mutants compromises shoot and root development. Plant Physiology, 2022, 188, 220-240.	2.3	6
84	A two-step adaptive walk rewires nutrient transport in a challenging edaphic environment. Science Advances, 2022, 8, eabm9385.	4.7	6
85	Genome-wide association mapping for grain manganese in rice (Oryza sativa L.) using a multi-experiment approach. Heredity, 2021, 126, 505-520.	1.2	3