

Mark G Aarts

List of Publications by Year in descending order

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109
papers

10,310
citations

47006

47
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33894

99
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114
all docs

114
docs citations

114
times ranked

10347
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#	ARTICLE	IF	CITATIONS
1	Variation in cadmium accumulation and speciation within the same population of the hyperaccumulator <i>Noccaea caerulescens</i> grown in a moderately contaminated soil. <i>Plant and Soil</i> , 2022, 475, 379-394.	3.7	7
2	Genetics as a key to improving crop photosynthesis. <i>Journal of Experimental Botany</i> , 2022, 73, 3122-3137.	4.8	25
3	Multimodal synchrotron X-ray fluorescence imaging reveals elemental distribution in seeds and seedlings of the Zn–Cd–Ni hyperaccumulator <i>Noccaea caerulescens</i> . <i>Metallomics</i> , 2022, 14, .	2.4	5
4	<i>Arabidopsis</i> bZIP19 and bZIP23 act as zinc sensors to control plant zinc status. <i>Nature Plants</i> , 2021, 7, 137-143.	9.3	76
5	Quantification of spatial metal accumulation patterns in <i>Noccaea caerulescens</i> by X-ray fluorescence image processing for genetic studies. <i>Plant Methods</i> , 2021, 17, 86.	4.3	6
6	Isotopic signatures reveal zinc cycling in the natural habitat of hyperaccumulator <i>Dichapetalum gelonioides</i> subspecies from Malaysian Borneo. <i>BMC Plant Biology</i> , 2021, 21, 437.	3.6	2
7	FLC and SVP Are Key Regulators of Flowering Time in the Biennial/Perennial Species <i>Noccaea caerulescens</i> . <i>Frontiers in Plant Science</i> , 2020, 11, 582577.	3.6	5
8	Natural variation of photosynthetic efficiency in <i>Arabidopsis thaliana</i> accessions under low temperature conditions. <i>Plant, Cell and Environment</i> , 2020, 43, 2000-2013.	5.7	19
9	Intra-specific variation in zinc, cadmium and nickel hypertolerance and hyperaccumulation capacities in <i>Noccaea caerulescens</i> . <i>Plant and Soil</i> , 2020, 452, 479-498.	3.7	23
10	Rice F-bZIP transcription factors regulate the zinc deficiency response. <i>Journal of Experimental Botany</i> , 2020, 71, 3664-3677.	4.8	49
11	Reciprocal cybrids reveal how organellar genomes affect plant phenotypes. <i>Nature Plants</i> , 2020, 6, 13-21.	9.3	40
12	Prior Biological Knowledge Improves Genomic Prediction of Growth-Related Traits in <i>Arabidopsis thaliana</i> . <i>Frontiers in Genetics</i> , 2020, 11, 609117.	2.3	4
13	QTL and candidate genes associated with leaf anion concentrations in response to phosphate supply in <i>Arabidopsis thaliana</i> . <i>BMC Plant Biology</i> , 2019, 19, 410.	3.6	9
14	Overexpression of the MYB29 transcription factor affects aliphatic glucosinolate synthesis in <i>Brassica oleracea</i> . <i>Plant Molecular Biology</i> , 2019, 101, 65-79.	3.9	28
15	Spatially-resolved localization and chemical speciation of nickel and zinc in <i>Noccaea tymphaea</i> and <i>Bornmuellera emarginata</i> . <i>Metallomics</i> , 2019, 11, 2052-2065.	2.4	12
16	Converging phenomics and genomics to study natural variation in plant photosynthetic efficiency. <i>Plant Journal</i> , 2019, 97, 112-133.	5.7	75
17	Transcriptional effects of cadmium on iron homeostasis differ in calamine accessions of <i>Noccaea caerulescens</i> . <i>Plant Journal</i> , 2019, 97, 306-320.	5.7	27
18	Local Fitness Landscapes Predict Yeast Evolutionary Dynamics in Directionally Changing Environments. <i>Genetics</i> , 2018, 208, 307-322.	2.9	27

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19	Cadmium associates with oxalate in calcium oxalate crystals and competes with calcium for translocation to stems in the cadmium bioindicator <i>Gomphrena clausenii</i> . <i>Metallomics</i> , 2018, 10, 1576-1584.	2.4	25
20	Photosynthetic response to increased irradiance correlates to variation in transcriptional response of lipid remodeling and heat shock genes. <i>Plant Direct</i> , 2018, 2, e00069.	1.9	9
21	LPCAT1 controls phosphate homeostasis in a zinc-dependent manner. <i>ELife</i> , 2018, 7, .	6.0	63
22	De novo transcriptome assemblies of four accessions of the metal hyperaccumulator plant <i>Noccaea caerulescens</i> . <i>Scientific Data</i> , 2017, 4, 160131.	5.3	38
23	Natural variation of <i>YELLOW SEEDLING1</i> affects photosynthetic acclimation of <i>Arabidopsis thaliana</i> . <i>Nature Communications</i> , 2017, 8, 1421.	12.8	35
24	Natural variation in <i>Arabidopsis thaliana</i> reveals shoot ionome, biomass, and gene expression changes as biomarkers for zinc deficiency tolerance. <i>Journal of Experimental Botany</i> , 2017, 68, 3643-3656.	4.8	26
25	Genomics of Adaptation Depends on the Rate of Environmental Change in Experimental Yeast Populations. <i>Molecular Biology and Evolution</i> , 2017, 34, 2613-2626.	8.9	24
26	Genetic architecture of plant stress resistance: multi-trait genome-wide association mapping. <i>New Phytologist</i> , 2017, 213, 1346-1362.	7.3	144
27	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.	3.6	55
28	Expression of the <i>ZNT1</i> Zinc Transporter from the Metal Hyperaccumulator <i>Noccaea caerulescens</i> Confers Enhanced Zinc and Cadmium Tolerance and Accumulation to <i>Arabidopsis thaliana</i> . <i>PLoS ONE</i> , 2016, 11, e0149750.	2.5	80
29	Transcriptome dynamics of <i>Arabidopsis</i> during sequential biotic and abiotic stresses. <i>Plant Journal</i> , 2016, 86, 249-267.	5.7	200
30	Effect of prior drought and pathogen stress on <i>Arabidopsis</i> transcriptome changes to caterpillar herbivory. <i>New Phytologist</i> , 2016, 210, 1344-1356.	7.3	53
31	Whole-Genome Hitchhiking on an Organelle Mutation. <i>Current Biology</i> , 2016, 26, 1306-1311.	3.9	17
32	Multi-element bioimaging of <i>Arabidopsis thaliana</i> roots. <i>Plant Physiology</i> , 2016, 172, pp.00770.2016.	4.8	38
33	Dynamics of Adaptation in Experimental Yeast Populations Exposed to Gradual and Abrupt Change in Heavy Metal Concentration. <i>American Naturalist</i> , 2016, 187, 110-119.	2.1	22
34	Phenomics for photosynthesis, growth and reflectance in <i>Arabidopsis thaliana</i> reveals circadian and long-term fluctuations in heritability. <i>Plant Methods</i> , 2016, 12, 14.	4.3	97
35	Disaggregating polyploidy, parental genome dosage and hybridity contributions to heterosis in <i>Arabidopsis thaliana</i> . <i>New Phytologist</i> , 2016, 209, 590-599.	7.3	46
36	Transcriptomic profiling of <i>Arabidopsis</i> gene expression in response to varying micronutrient zinc supply. <i>Genomics Data</i> , 2016, 7, 256-258.	1.3	17

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37	Biofumigation using a wild <i>Brassica oleracea</i> accession with high glucosinolate content affects beneficial soil invertebrates. <i>Plant and Soil</i> , 2015, 394, 155-163.	3.7	10
38	<i>Gomphrena claussenii</i> , a novel metal-hypertolerant bioindicator species, sequesters cadmium, but not zinc, in vacuolar oxalate crystals. <i>New Phytologist</i> , 2015, 208, 763-775.	7.3	28
39	A transposon insertion in FLOWERING LOCUS T is associated with delayed flowering in <i>Brassica rapa</i> . <i>Plant Science</i> , 2015, 241, 211-220.	3.6	55
40	Isolation and identification of 4- β -rhamnosyloxy benzyl glucosinolate in <i>Noccaea caerulescens</i> showing intraspecific variation. <i>Phytochemistry</i> , 2015, 110, 166-171.	2.9	36
41	Natural Genetic Variation for Acclimation of Photosynthetic Light Use Efficiency to Growth Irradiance in <i>Arabidopsis</i> . <i>Plant Physiology</i> , 2015, 167, 1412-1429.	4.8	78
42	Quantitative trait loci and candidate genes underlying genotype by environment interaction in the response of <i>Arabidopsis thaliana</i> to drought. <i>Plant, Cell and Environment</i> , 2015, 38, 585-599.	5.7	62
43	Comparative transcriptome analysis of the metal hyperaccumulator <i>Noccaea caerulescens</i> . <i>Frontiers in Plant Science</i> , 2014, 5, 213.	3.6	37
44	A comprehensive set of transcript sequences of the heavy metal hyperaccumulator <i>Noccaea caerulescens</i> . <i>Frontiers in Plant Science</i> , 2014, 5, 261.	3.6	32
45	Nicotianamine Secretion for Zinc Excess Tolerance1. <i>Plant Physiology</i> , 2014, 166, 751-752.	4.8	5
46	Genotype-environment interactions affecting preflowering physiological and morphological traits of <i>Brassica rapa</i> grown in two watering regimes. <i>Journal of Experimental Botany</i> , 2014, 65, 697-708.	4.8	34
47	Genotype-environment interaction QTL mapping in plants: lessons from <i>Arabidopsis</i> . <i>Trends in Plant Science</i> , 2014, 19, 390-398.	8.8	237
48	Expression profiling reveals functionally redundant multiple-copy genes related to zinc, iron and cadmium responses in <i>Brassica rapa</i> . <i>New Phytologist</i> , 2014, 203, 182-194.	7.3	25
49	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.	10.0	106
50	Natural variation in phosphorylation of photosystem II proteins in <i>Arabidopsis thaliana</i> : is it caused by genetic variation in the STN kinases?. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2014, 369, 20130499.	4.0	7
51	Model of how plants sense zinc deficiency. <i>Metallomics</i> , 2013, 5, 1110.	2.4	50
52	Plant science: the key to preventing slow cadmium poisoning. <i>Trends in Plant Science</i> , 2013, 18, 92-99.	8.8	844
53	<i>Gomphrena claussenii</i> , the first South-American metallophyte species with indicator-like Zn and Cd accumulation and extreme metal tolerance. <i>Frontiers in Plant Science</i> , 2013, 4, 180.	3.6	21
54	Expression of HMA4 cDNAs of the zinc hyperaccumulator <i>Noccaea caerulescens</i> from endogenous NcHMA4 promoters does not complement the zinc-deficiency phenotype of the <i>Arabidopsis thaliana</i> hma2hma4 double mutant. <i>Frontiers in Plant Science</i> , 2013, 4, 404.	3.6	19

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55	Genetic Analysis of Health-Related Secondary Metabolites in a Brassica rapa Recombinant Inbred Line Population. International Journal of Molecular Sciences, 2013, 14, 15561-15577.	4.1	13
56	Identification of seed-related QTL in Brassica rapa. Spanish Journal of Agricultural Research, 2013, 11, 1085.	0.6	13
57	Genetic analysis of morphological traits in a new, versatile, rapid-cycling Brassica rapa recombinant inbred line population. Frontiers in Plant Science, 2012, 3, 183.	3.6	28
58	The molecular mechanism of zinc and cadmium stress response in plants. Cellular and Molecular Life Sciences, 2012, 69, 3187-3206.	5.4	521
59	Genetic analysis of the effect of zinc deficiency on Arabidopsis growth and mineral concentrations. Plant and Soil, 2012, 361, 227-239.	3.7	9
60	Strategies to increase zinc deficiency tolerance and homeostasis in plants. Brazilian Journal of Plant Physiology, 2012, 24, 3-8.	0.5	24
61	High throughput screening with chlorophyll fluorescence imaging and its use in crop improvement. Current Opinion in Biotechnology, 2012, 23, 221-226.	6.6	45
62	Signals of speciation within Arabidopsis thaliana in comparison with its relatives. Current Opinion in Plant Biology, 2012, 15, 205-211.	7.1	7
63	Natural genetic variation in plant photosynthesis. Trends in Plant Science, 2011, 16, 327-335.	8.8	191
64	Opportunities and feasibilities for biotechnological improvement of Zn, Cd or Ni tolerance and accumulation in plants. Environmental and Experimental Botany, 2011, 72, 53-63.	4.2	154
65	Comparison of two ecotypes of the metal hyperaccumulator Thlaspi caerulescens (J. & C. PRESL) at the transcriptional level. Protoplasma, 2010, 239, 81-93.	2.1	20
66	<i>Arabidopsis thaliana</i> transcription factors bZIP19 and bZIP23 regulate the adaptation to zinc deficiency. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 10296-10301.	7.1	334
67	Regulation of the adaptation to zinc deficiency in plants. Plant Signaling and Behavior, 2010, 5, 1553-1555.	2.4	49
68	A strong effect of growth medium and organ type on the identification of QTLs for phytate and mineral concentrations in three Arabidopsis thaliana RIL populations. Journal of Experimental Botany, 2009, 60, 1409-1425.	4.8	75
69	Identification and functional analysis of two ZIP metal transporters of the hyperaccumulator Thlaspi caerulescens. Plant and Soil, 2009, 325, 79-95.	3.7	51
70	Functional characterization of NRAMP3 and NRAMP4 from the metal hyperaccumulator <i>Thlaspi caerulescens</i> . New Phytologist, 2009, 181, 637-650.	7.3	244
71	Genetic analysis identifies quantitative trait loci controlling rosette mineral concentrations in <i>Arabidopsis thaliana</i> under drought. New Phytologist, 2009, 184, 180-192.	7.3	51
72	Activity of the AtMRP3 promoter in transgenic Arabidopsis thaliana and Nicotiana tabacum plants is increased by cadmium, nickel, arsenic, cobalt and lead but not by zinc and iron. Journal of Biotechnology, 2009, 139, 258-263.	3.8	52

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73	What Has Natural Variation Taught Us about Plant Development, Physiology, and Adaptation?. <i>Plant Cell</i> , 2009, 21, 1877-1896.	6.6	401
74	Functional ecological genomics to demonstrate general and specific responses to abiotic stress. <i>Functional Ecology</i> , 2008, 22, 8-18.	3.6	43
75	<i>Arabidopsis thaliana</i> and <i>Thlaspi caerulescens</i> respond comparably to low zinc supply. <i>Plant and Soil</i> , 2008, 306, 85-94.	3.7	10
76	Mapping QTLs for mineral accumulation and shoot dry biomass under different Zn nutritional conditions in Chinese cabbage (<i>Brassica rapa</i> L. ssp. <i>pekinensis</i>). <i>Plant and Soil</i> , 2008, 310, 25-40.	3.7	62
77	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.	5.7	291
78	The Impact of the Absence of Aliphatic Glucosinolates on Insect Herbivory in <i>Arabidopsis</i> . <i>PLoS ONE</i> , 2008, 3, e2068.	2.5	223
79	Identification of Genes for Biofortification Genetic and Molecular Analysis of Mineral Accumulation in <i>Arabidopsis thaliana</i> and Other Plant Species. , 2008, , 231-251.		0
80	Increasing the iron and zinc contents of plants. <i>Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology</i> , 2007, 146, S247-S248.	1.8	0
81	Characterization of natural variation for zinc, iron and manganese accumulation and zinc exposure response in <i>Brassica rapa</i> L.. <i>Plant and Soil</i> , 2007, 291, 167-180.	3.7	31
82	Isolation of Zn-responsive genes from two accessions of the hyperaccumulator plant <i>Thlaspi caerulescens</i> . <i>Planta</i> , 2007, 225, 977-989.	3.2	54
83	Progress in the genetic understanding of plant iron and zinc nutrition. <i>Physiologia Plantarum</i> , 2006, 126, 407-417.	5.2	121
84	Construction of a genetic linkage map of <i>Thlaspi caerulescens</i> and quantitative trait loci analysis of zinc accumulation. <i>New Phytologist</i> , 2006, 170, 21-32.	7.3	71
85	Comparative transcriptomics “ model species lead the way. <i>New Phytologist</i> , 2006, 170, 199-201.	7.3	19
86	The heavy metal hyperaccumulator <i>Thlaspi caerulescens</i> expresses many species-specific genes, as identified by comparative expressed sequence tag analysis. <i>New Phytologist</i> , 2006, 170, 753-766.	7.3	69
87	QTL analysis of cadmium and zinc accumulation in the heavy metal hyperaccumulator <i>Thlaspi caerulescens</i> . <i>Theoretical and Applied Genetics</i> , 2006, 113, 907-920.	3.6	100
88	Large Expression Differences in Genes for Iron and Zinc Homeostasis, Stress Response, and Lignin Biosynthesis Distinguish Roots of <i>Arabidopsis thaliana</i> and the Related Metal Hyperaccumulator <i>Thlaspi caerulescens</i> . <i>Plant Physiology</i> , 2006, 142, 1127-1147.	4.8	477
89	Transcription Profiling of the Metal-hyperaccumulator <i>Thlaspi caerulescens</i> (J. & C. PRESL). <i>Zeitschrift Fur Naturforschung - Section C Journal of Biosciences</i> , 2005, 60, 216-223.	1.4	15
90	Altered photosynthetic performance of a natural <i>Arabidopsis</i> accession is associated with atrazine resistance. <i>Journal of Experimental Botany</i> , 2005, 56, 1625-1634.	4.8	38

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91	Natural variation and QTL analysis for cationic mineral content in seeds of <i>Arabidopsis thaliana</i> . <i>Plant, Cell and Environment</i> , 2004, 27, 828-839.	5.7	155
92	<i>Thlaspi caerulescens</i> , an attractive model species to study heavy metal hyperaccumulation in plants. <i>New Phytologist</i> , 2003, 159, 351-360.	7.3	319
93	Low frequency of T-DNA based activation tagging in <i>Arabidopsis</i> is correlated with methylation of CaMV 35S enhancer sequences. <i>FEBS Letters</i> , 2003, 555, 459-463.	2.8	29
94	What drives plant stress genes?. <i>Trends in Plant Science</i> , 2003, 8, 99-102.	8.8	22
95	Elevated expression of metal transporter genes in three accessions of the metal hyperaccumulator <i>Thlaspi caerulescens</i> . <i>Plant, Cell and Environment</i> , 2001, 24, 217-226.	5.7	313
96	Elevated expression of metal transporter genes in three accessions of the metal hyperaccumulator <i>Thlaspi caerulescens</i> . <i>Plant, Cell and Environment</i> , 2001, 24, 217-226.	5.7	33
97	ANTHOCYANINLESS2, a Homeobox Gene Affecting Anthocyanin Distribution and Root Development in <i>Arabidopsis</i> . <i>Plant Cell</i> , 1999, 11, 1217-1226.	6.6	214
98	<i>Arabidopsis</i> STERILE APETALA, a multifunctional gene regulating inflorescence, flower, and ovule development. <i>Genes and Development</i> , 1999, 13, 1002-1014.	5.9	120
99	Intragenic Recombination and Diversifying Selection Contribute to the Evolution of Downy Mildew Resistance at the RPP8 Locus of <i>Arabidopsis</i> . <i>Plant Cell</i> , 1998, 10, 1861-1874.	6.6	453
100	Intragenic Recombination and Diversifying Selection Contribute to the Evolution of Downy Mildew Resistance at the RPP8 Locus of <i>Arabidopsis</i> . <i>Plant Cell</i> , 1998, 10, 1861.	6.6	37
101	Identification of R-Gene Homologous DNA Fragments Genetically Linked to Disease Resistance Loci in <i>Arabidopsis thaliana</i> . <i>Molecular Plant-Microbe Interactions</i> , 1998, 11, 251-258.	2.6	194
102	33. Transposon Tagging with the En-I System. , 1998, 82, 329-338.		18
103	The <i>Arabidopsis</i> MALE STERILITY 2 protein shares similarity with reductases in elongation/condensation complexes. <i>Plant Journal</i> , 1997, 12, 615-623.	5.7	268
104	The <i>Arabidopsis</i> MALE STERILITY 2 protein shares similarity with reductases in elongation/condensation complexes. <i>Plant Journal</i> , 1997, 12, 615-623.	5.7	239
105	A two-element Enhancer-Inhibitor transposon system in <i>Arabidopsis thaliana</i> . <i>Molecular Genetics and Genomics</i> , 1995, 247, 555-564.	2.4	52
106	Molecular characterization of the CER1 gene of <i>Arabidopsis</i> involved in epicuticular wax biosynthesis and pollen fertility.. <i>Plant Cell</i> , 1995, 7, 2115-2127.	6.6	390
107	Molecular Characterization of the CER1 Gene of <i>Arabidopsis</i> Involved in Epicuticular Wax Biosynthesis and Pollen Fertility. <i>Plant Cell</i> , 1995, 7, 2115.	6.6	111
108	Transposon tagging of a male sterility gene in <i>Arabidopsis</i> . <i>Nature</i> , 1993, 363, 715-717.	27.8	213

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109	Microspore and pollen development in six male-sterile mutants of <i>Arabidopsis thaliana</i> . <i>Canadian Journal of Botany</i> , 1993, 71, 629-638.	1.1	104