Aaron Fait

List of Publications by Year
in descending order

103 papers	6,846 citations	50276 46 h-index	62596 80 g-index
110 all docs	110 docs citations	110 times ranked	8022 citing authors

#	Article	IF	Citations
1	Highway or byway: the metabolic role of the GABA shunt in plants. Trends in Plant Science, 2008, 13, 14-19.	8.8	583
2	Arabidopsis Seed Development and Germination Is Associated with Temporally Distinct Metabolic Switches. Plant Physiology, 2006, 142, 839-854.	4.8	387
3	Mitochondrial succinic-semialdehyde dehydrogenase of the Â-aminobutyrate shunt is required to restrict levels of reactive oxygen intermediates in plants. Proceedings of the National Academy of Sciences of the United States of America, 2003, 100, 6843-6848.	7.1	375
4	Reconfiguration of the Achene and Receptacle Metabolic Networks during Strawberry Fruit Development Â. Plant Physiology, 2008, 148, 730-750.	4.8	276
5	Transcriptome and metabolite profiling reveals that prolonged drought modulates the phenylpropanoid and terpenoid pathway in white grapes (Vitis vinifera L.). BMC Plant Biology, 2016, 16, 67.	3.6	269
6	Seed desiccation: a bridge between maturation and germination. Trends in Plant Science, 2010, 15, 211-218.	8.8	262
7	A mitochondrial GABA permease connects the GABA shunt and the TCA cycle, and is essential for normal carbon metabolism. Plant Journal, 2011, 67, 485-498.	5.7	160
8	Metabolite profiling and network analysis reveal coordinated changes in grapevine water stress response. BMC Plant Biology, 2013, 13, 184.	3.6	158
9	Activation and regulation of primary metabolism during seed germination. Seed Science Research, 2014, 24, 1-15.	1.7	155
10	Reduced Expression of Succinyl-Coenzyme A Ligase Can Be Compensated for by Up-Regulation of the<i>Î³</i>-Aminobutyrate Shunt in Illuminated Tomato Leaves. Plant Physiology, 2007, 145, 626-639.	4.8	151
11	Metabolite and transcript profiling of berry skin during fruit development elucidates differential regulation between Cabernet Sauvignon and Shiraz cultivars at branching points in the polyphenol pathway. BMC Plant Biology, 2014, 14, 188.	3.6	135
12	Deciphering genetic factors that determine melon fruitâ€quality traits using RNA â€Seqâ€based highâ€resolution QTL and eQTL mapping. Plant Journal, 2018, 94, 169-191.	5.7	133
13	A seed highâ€lysine trait is negatively associated with the TCA cycle and slows down Arabidopsis seed germination. New Phytologist, 2011, 189, 148-159.	7.3	130
14	Metabolic Profiling of a Mapping Population Exposes New Insights in the Regulation of Seed Metabolism and Seed, Fruit, and Plant Relations. PLoS Genetics, 2012, 8, e1002612.	3.5	115
15	GABA shunt deficiencies and accumulation of reactive oxygen intermediates: insight fromArabidopsismutants. FEBS Letters, 2005, 579, 415-420.	2.8	111
16	Targeted Enhancement of Glutamate-to-Î³-Aminobutyrate Conversion in Arabidopsis Seeds Affects Carbon-Nitrogen Balance and Storage Reserves in a Development-Dependent Manner Â Â. Plant Physiology, 2011, 157, 1026-1042.	4.8	111
17	Increasing amino acid supply in pea embryos reveals specific interactions of N and C metabolism, and highlights the importance of mitochondrial metabolism. Plant Journal, 2008, 55, 909-926.	5.7	110
18	Multi-Omics and Integrated Network Analyses Reveal New Insights into the Systems Relationships between Metabolites, Structural Genes, and Transcriptional Regulators in Developing Grape Berries (Vitis vinifera L.) Exposed to Water Deficit. Frontiers in Plant Science, 2017, 8, 1124.	3.6	108

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19	The root-specific glutamate decarboxylase (GAD1) is essential for sustaining GABA levels in Arabidopsis. Plant Molecular Biology, 2004, 55, 315-325.	3.9	107
20	Metabolite Profiling and Integrative Modeling Reveal Metabolic Constraints for Carbon Partitioning under Nitrogen Starvation in the Green Algae Haematococcus pluvialis. Journal of Biological Chemistry, 2014, 289, 30387-30403.	3.4	103
21	The Mitochondrion: An Integration Point of Cellular Metabolism and Signalling. Critical Reviews in Plant Sciences, 2007, 26, 17-43.	5.7	102
22	Deciphering Transcriptional and Metabolic Networks Associated with Lysine Metabolism during Arabidopsis Seed Development Â Â Â. Plant Physiology, 2009, 151, 2058-2072.	4.8	89
23	Near isohydric grapevine cultivar displays higher photosynthetic efficiency and photorespiration rates under drought stress as compared with near anisohydric grapevine cultivar. Physiologia Plantarum, 2013, 147, 443-452.	5.2	89
24	Network analysis: tackling complex data to study plant metabolism. Trends in Biotechnology, 2013, 31, 29-36.	9.3	87
25	The COMATOSE ATP-Binding Cassette Transporter Is Required for Full Fertility in Arabidopsis. Plant Physiology, 2007, 144, 1467-1480.	4.8	85
26	ADP-Glucose Pyrophosphorylase-Deficient Pea Embryos Reveal Specific Transcriptional and Metabolic Changes of Carbon-Nitrogen Metabolism and Stress Responses Â. Plant Physiology, 2009, 149, 395-411.	4.8	78
27	Catabolism of <scp>l</scp>â€"methionine in the formation of sulfur and other volatiles in melon (<i><scp>C</scp>ucumis melo</i> L.) fruit. Plant Journal, 2013, 74, 458-472.	5.7	78
28	Auto-deconvolution and molecular networking of gas chromatographyâ€"mass spectrometry data. Nature Biotechnology, 2021, 39, 169-173.	17.5	78
29	Alteration in expression of hormone-related genes in wild emmer wheat roots associated with drought adaptation mechanisms. Functional and Integrative Genomics, 2011, 11, 565-583.	3.5	74
30	Distribution of Primary and Specialized Metabolites in Nigella sativa Seeds, a Spice with Vast Traditional and Historical Uses. Molecules, 2012, 17, 10159-10177.	3.8	70
31	Correlation-Based Network Generation, Visualization, and Analysis as a Powerful Tool in Biological Studies: A Case Study in Cancer Cell Metabolism. BioMed Research International, 2016, 2016, 1-9.	1.9	68
32	Sunlight Modulates Fruit Metabolic Profile and Shapes the Spatial Pattern of Compound Accumulation within the Grape Cluster. Frontiers in Plant Science, 2017, 8, 70.	3.6	68
33	Morphological, cytological and metabolic consequences of autopolyploidization in Hylocereus (Cactaceae) species. BMC Plant Biology, 2013, 13, 173.	3.6	67
34	Growth, lipid production and metabolic adjustments in the euryhaline eustigmatophyte Nannochloropsis oceanica CCALA 804 in response to osmotic downshift. Applied Microbiology and Biotechnology, 2013, 97, 8291-8306.	3.6	65
35	Rumor Has Itâ€¦: Relay Communication of Stress Cues in Plants. PLoS ONE, 2011, 6, e23625.	2.5	58
36	Combined Transcriptomics and Metabolomics of Arabidopsis thaliana Seedlings Exposed to Exogenous GABA Suggest Its Role in Plants Is Predominantly Metabolic. Molecular Plant, 2014, 7, 1065-1068.	8.3	56

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37	Cultivar specific metabolic changes in grapevines berry skins in relation to deficit irrigation and hydraulic behavior. Plant Physiology and Biochemistry, 2015, 88, 42-52.	5.8	56
38	Regional features of northern Italian sparkling wines, identified using solid-phase micro extraction and comprehensive two-dimensional gas chromatography coupled with time-of-flight mass spectrometry. Food Chemistry, 2016, 208, 68-80.	8.2	56
39	Tolerance to high soil temperature in foxtail millet (Setaria italica L.) is related to shoot and root growth and metabolism. Plant Physiology and Biochemistry, 2016, 106, 73-81.	5.8	56
40	Combined correlationâ€based network and <scp>mQTL</scp> analyses efficiently identified loci for branchedâ€chain amino acid, serine to threonine, and proline metabolism in tomato seeds. Plant Journal, 2015, 81, 121-133.	5.7	55
41	Grapevine acclimation to water deficit: the adjustment of stomatal and hydraulic conductance differs from petiole embolism vulnerability. Planta, 2017, 245, 1091-1104.	3.2	55
42	Polyphenolic responses of grapevine berries to light, temperature, oxidative stress, abscisic acid and jasmonic acid show specific developmental-dependent degrees of metabolic resilience to perturbation. Food Chemistry, 2016, 212, 828-836.	8.2	54
43	Chemotypic differentiation in indigenous populations of Foeniculum vulgare var. vulgare in Israel. Biochemical Systematics and Ecology, 2002, 30, 721-731.	1.3	53
44	Phenylalanine and tyrosine levels are rate-limiting factors in production of health promoting metabolites in Vitis vinifera cv. Gamay Red cell suspension. Frontiers in Plant Science, 2015, 6, 538.	3.6	53
45	Combined network analysis and machine learning allows the prediction of metabolic pathways from tomato metabolomics data. Communications Biology, 2019, 2, 214.	4.4	53
46	Metabolic and Physiological Responses of Shiraz and Cabernet Sauvignon (Vitis vinifera L.) to Near Optimal Temperatures of 25 and 35 Â°C. International Journal of Molecular Sciences, 2015, 16, 24276-24294.	4.1	52
47	Network-Guided GWAS Improves Identification of Genes Affecting Free Amino Acids. Plant Physiology, 2017, 173, 872-886.	4.8	52
48	Growth Platform-Dependent and -Independent Phenotypic and Metabolic Responses of Arabidopsis and Its Halophytic Relative, Eutrema salsugineum, to Salt Stress. Plant Physiology, 2013, 162, 1583-1598.	4.8	50
49	Conserved Changes in the Dynamics of Metabolic Processes during Fruit Development and Ripening across Species Â Â Â. Plant Physiology, 2014, 164, 55-68.	4.8	50
50	Paclobutrazol induces tolerance in tomato to deficit irrigation through diversified effects on plant morphology, physiology and metabolism. Scientific Reports, 2016, 6, 39321.	3.3	47
51	Abnormal Physiological and Molecular Mutant Phenotypes Link Chloroplast Polynucleotide Phosphorylase to the Phosphorus Deprivation Response in Arabidopsis Â Â Â. Plant Physiology, 2009, 151, 905-924.	4.8	43
52	The common transcriptional subnetworks of the grape berry skin in the late stages of ripening. BMC Plant Biology, 2017, 17, 94.	3.6	42
53	Five omic technologies are concordant in differentiating the biochemical characteristics of the berries of five grapevine (Vitis vinifera L.) cultivars. BMC Genomics, 2015, 16, 946.	2.8	41
54	Differential metabolism of Lâ€“phenylalanine in the formation of aromatic volatiles in melon (Cucumis) Tj ETQq0 0 0 rgBT /Overlock 10 T	2.9	41

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55	Grape berry position affects the diurnal dynamics of its metabolic profile. Plant, Cell and Environment, 2019, 42, 1897-1912.	5.7	41
56	Impact of scion/rootstock reciprocal effects on metabolomics of fruit juice and phloem sap in grafted Citrus reticulata. PLoS ONE, 2020, 15, e0227192.	2.5	39
57	Grapevine Anatomy as a Possible Determinant of Isohydric or Anisohydric Behavior. American Journal of Enology and Viticulture, 2015, 66, 340-347.	1.7	38
58	Mechanisms of hormonal regulation of endosperm capâ€specific gene expression in tomato seeds. Plant Journal, 2012, 71, 575-586.	5.7	37
59	Effects of Parental Temperature and Nitrate on Seed Performance are Reflected by Partly Overlapping Genetic and Metabolic Pathways. Plant and Cell Physiology, 2016, 57, 473-487.	3.1	37
60	Grape Metabolic Response to Postveraison Water Deficit Is Affected by Interseason Weather Variability. Journal of Agricultural and Food Chemistry, 2017, 65, 5868-5878.	5.2	36
61	The variability in the xylem architecture of grapevine petiole and its contribution to hydraulic differences. Functional Plant Biology, 2015, 42, 357.	2.1	35
62	Grape Berry Acclimation to Excessive Solar Irradiance Leads to Repartitioning between Major Flavonoid Groups. Journal of Agricultural and Food Chemistry, 2018, 66, 3624-3636.	5.2	35
63	Chemical Variation Among Indigenous Populations of<i>Foeniculum vulgare</i>var.<i>vulgare</i>in Israel. Planta Medica, 1999, 65, 486-489.	1.3	33
64	Ecotypic Variability in the Metabolic Response of Seeds to Diurnal Hydrationâ€“Dehydration Cycles and its Relationship to Seed Vigor. Plant and Cell Physiology, 2012, 53, 38-52.	3.1	32
65	The transporter GAT1 plays an important role in GABA-mediated carbon-nitrogen interactions in Arabidopsis. Frontiers in Plant Science, 2015, 6, 785.	3.6	30
66	Swift metabolite changes and leaf shedding are milestones in the acclimation process of grapevine under prolonged water stress. BMC Plant Biology, 2019, 19, 69.	3.6	30
67	Environmental and genetic effects on tomato seed metabolic balance and its association with germination vigor. BMC Genomics, 2016, 17, 1047.	2.8	28
68	Anastatica hierochuntica, an Arabidopsis Desert Relative, Is Tolerant to Multiple Abiotic Stresses and Exhibits Species-Specific and Common Stress Tolerance Strategies with Its Halophytic Relative, Eutrema (Thellungiella) salsugineum. Frontiers in Plant Science, 2016, 7, 1992.	3.6	24
69	A bell pepper cultivar tolerant to chilling enhanced nitrogen allocation and stressâ€related metabolite accumulation in the roots in response to low rootâ€zone temperature. Physiologia Plantarum, 2017, 161, 196-210.	5.2	23
70	Sulfite Oxidase Activity Is Essential for Normal Sulfur, Nitrogen and Carbon Metabolism in Tomato Leaves. Plants, 2015, 4, 573-605.	3.5	22
71	Metabolite profiling and transcript analysis reveal specificities in the response of a berry derived cell culture to abiotic stresses. Frontiers in Plant Science, 2015, 6, 728.	3.6	22
72	Cytoplasmic genome substitution in wheat affects the nuclear-cytoplasmic cross-talk leading to transcript and metabolite alterations. BMC Genomics, 2013, 14, 868.	2.8	20

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73	Metabolite profiling elucidates communalities and differences in the polyphenol biosynthetic pathways of red and white Muscat genotypes. Plant Physiology and Biochemistry, 2015, 86, 24-33.	5.8	20
74	Correlation-Based Network Analysis of Metabolite and Enzyme Profiles Reveals a Role of Citrate Biosynthesis in Modulating N and C Metabolism in Zea mays. Frontiers in Plant Science, 2016, 7, 1022.	3.6	20
75	Temperature Shift Between Vineyards Modulates Berry Phenology and Primary Metabolism in a Varietal Collection of Wine Grapevine. Frontiers in Plant Science, 2020, 11, 588739.	3.6	17
76	Salt Induces Features of a Dormancy-Like State in Seeds of Eutrema (Thellungiella) salsugineum, a Halophytic Relative of Arabidopsis. Frontiers in Plant Science, 2016, 7, 1071.	3.6	16
77	Physiology and metabolism of grafted bell pepper in response to low root-zone temperature. Functional Plant Biology, 2019, 46, 339.	2.1	11
78	Can metabolic tightening and expansion of co-expression network play a role in stress response and tolerance?. Plant Science, 2020, 293, 110409.	3.6	11
79	Seed Physiology and Germination of Grain Legumes. Handbook of Plant Breeding, 2015, , 327-363.	0.1	10
80	Surface Cell Density Effects on Escherichia coli Gene Expression during Cell Attachment. Environmental Science & Technology, 2013, 47, 6223-6230.	10.0	9
81	Does scionâ€“rootstock compatibility modulate photoassimilate and hormone trafficking through the graft junction in melonâ€“pumpkin graft combinations?. Plant Science, 2021, 306, 110852.	3.6	9
82	GABA and GHB Neurotransmitters in Plants and Animals. , 2006, , 171-185.		8
83	Grafting as a Method to Increase the Tolerance Response of Bell Pepper to Extreme Temperatures. Vadose Zone Journal, 2018, 17, 1-8.	2.2	8
84	Metabolic Engineering Strategy Enables a Hundred-Fold Increase in Viniferin Levels in <i>Vitis vinifera</i> cv. Gamay Red Cell Culture. Journal of Agricultural and Food Chemistry, 2021, 69, 3124-3133.	5.2	8
85	The Effect of Soil on the Biochemical Plasticity of Berry Skin in Two Italian Grapevine (V. vinifera L.) Cultivars. Frontiers in Plant Science, 2020, 11, 822.	3.6	7
86	Iron Phosphide Precatalyst for Electrocatalytic Degradation of Rhodamine B Dye and Removal of Escherichia coli from Simulated Wastewater. Catalysts, 2022, 12, 269.	3.5	7
87	A combination of stomata deregulation and a distinctive modulation of amino acid metabolism are associated with enhanced tolerance of wheat varieties to transient drought. Metabolomics, 2017, 13, 1.	3.0	6
88	Not just shrivelling: time-series profiling of the biochemical changes in Corvina (<i>Vitis) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 142	1.4	6
89	A Synchronized Increase of Stilbenes and Flavonoids in Metabolically Engineered <i>Vitis vinifera</i> cv. Gamay Red Cell Culture. Journal of Agricultural and Food Chemistry, 2021, 69, 7922-7931.	5.2	6
90	The Investment in Scent: Time-Resolved Metabolic Processes in Developing Volatile-Producing Nigella sativa L. Seeds. PLoS ONE, 2013, 8, e73061.	2.5	5

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91	Forever Young? Late Shoot Pruning Affects Phenological Development, Physiology, Yield and Wine Quality of Vitis vinifera cv. Malbec. Agriculture (Switzerland), 2022, 12, 605.	3.1	4
92	Water deficit effects on the molecular processes, physiology and quality of grapevine. Acta Horticulturae, 2017, , 239-254.	0.2	3
93	Over 1000-Fold Synergistic Boost in Viniferin Levels by Elicitation of <i>Vitis vinifera</i> cv. Gamay Red Cell Cultures over Accumulating Phenylalanine. Journal of Agricultural and Food Chemistry, 2022, 70, 5049-5056.	5.2	3
94	Accumulation of newly identified sulfur containing metabolites in Zygophyllum dumosum Boiss suggest for a role of secondary metabolism in petiole survival during the dry season. Israel Journal of Plant Sciences, 2019, 66, 94-102.	0.5	2
95	Data Integration. , 2009, , 151-171.		2
96	Leveraging a graft collection to develop metabolome-based trait prediction for the selection of tomato rootstocks with enhanced salt tolerance. Horticulture Research, 2022, 9, uhac061.	6.3	2
97	The Effect of Topo-Climate Variation on the Secondary Metabolism of Berries in White Grapevine Varieties (Vitis vinifera). Frontiers in Plant Science, 2022, 13, 847268.	3.6	2
98	Impairment of root auxinâ€“cytokinins homeostasis induces collapse of incompatible melon grafts during fruit ripening. Horticulture Research, 2022, 9, .	6.3	2
99	Metabolic patterns associated with the seasonal rhythm of seed survival after dehydration in germinated seeds of Schismus arabicus. BMC Plant Biology, 2015, 15, 37.	3.6	1
100	Grapevines hydraulic diversity â€“ a critical consideration for irrigation management?. Acta Horticulturae, 2017, , 443-448.	0.2	1
101	Metabolomics-Assisted Crop Breeding Towards Improvement in Seed Quality and Yield. , 2012, , 453-475.		1
102	A ROLE FOR METABOLOMICS IN MARKER-ASSISTED BREEDING FOR CROP COMPOSITIONAL TRAITS?. Acta Horticulturae, 2009, , 101-112.	0.2	0
103	GABA and GHB Neurotransmitters in Plants and Animals. , 0, , 171-185.		0