Arnold J Bloom

List of Publications by Year
in descending order

72	7,632	101496 36	98753 67
papers	citations	h-index	g-index

77	77	77	7518
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Easy as piadcs: A lowâ€cost, ultraâ€highâ€resolution data acquisition system using a Raspberry Pi. Applications in Plant Sciences, 2022, 10, .	0.8	0
2	Photorespiration: The Futile Cycle?. Plants, 2021, 10, 908.	1.6	33
3	Wheat grain yield decreased over the past 35 years, but protein content did not change. Journal of Experimental Botany, 2021, 72, 6811-6821.	2.4	10
4	Rising atmospheric CO₂ concentration inhibits nitrate assimilation in shoots but enhances it in roots of C₃ plants. Physiologia Plantarum, 2020, 168, 963-972.	2.6	32
5	Metal regulation of metabolism. Current Opinion in Chemical Biology, 2019, 49, 33-38.	2.8	20
6	Manganese binding to Rubisco could drive a photorespiratory pathway that increases the energy efficiency of photosynthesis. Nature Plants, 2018, 4, 414-422.	4.7	63
7	Relative association of Rubisco with manganese and magnesium as a regulatory mechanism in plants. Physiologia Plantarum, 2017, 161, 545-559.	2.6	27
8	Complex Relationships among Water Use Efficiencyâ€Related Traits, Yield, and Maturity in Tomato Lines Subjected to Deficit Irrigation in the Field. Crop Science, 2016, 56, 1698-1710.	0.8	6
9	Quantitative Trait Loci for Waterâ€Stress Tolerance Traits Localize on Chromosome 9 of Wild Tomato. Crop Science, 2016, 56, 1514-1525.	0.8	10
10	Inorganic nitrogen form: a major player in wheat and Arabidopsis responses to elevated CO2. Journal of Experimental Botany, 2016, 68, erw465.	2.4	48
11	Impacts of elevated atmospheric CO2 on nutrient content of important food crops. Scientific Data, 2015, 2, 150036.	2.4	66
12	High-resolution mapping of a major effect QTL from wild tomato Solanum habrochaites that influences water relations under root chilling. Theoretical and Applied Genetics, 2015, 128, 1713-1724.	1.8	30
13	Does Low Stomatal Conductance or Photosynthetic Capacity Enhance Growth at Elevated CO2 in Arabidopsis?. Plant Physiology, 2015, 167, 793-799.	2.3	16
14	The increasing importance of distinguishing among plant nitrogen sources. Current Opinion in Plant Biology, 2015, 25, 10-16.	3.5	199
15	Responses of Arabidopsis and Wheat to Rising CO₂ Depend on Nitrogen Source and Nighttime CO₂ Levels. Plant Physiology, 2015, 168, 156-163.	2.3	55
16	Photorespiration and nitrate assimilation: a major intersection between plant carbon and nitrogen. Photosynthesis Research, 2015, 123, 117-128.	1.6	189
17	Nitrate reductase 15N discrimination in Arabidopsis thaliana, Zea mays, Aspergillus niger, Pichea angusta, and Escherichia coli. Frontiers in Plant Science, 2014, 5, 317.	1.7	16
18	Increasing CO2 threatens human nutrition. Nature, 2014, 510, 139-142.	13.7	1,024

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19	Climate-smart agriculture global research agenda: scientific basis for action. Agriculture and Food Security, 2014, 3, .	1.6	165
20	Easy Leaf Area: Automated digital image analysis for rapid and accurate measurement of leaf area. Applications in Plant Sciences, 2014, 2, 1400033.	0.8	344
21	Nitrate assimilation is inhibited by elevated CO2 in field-grown wheat. Nature Climate Change, 2014, 4, 477-480.	8.1	186
22	An Introgression from Wild Tomato (<i>Solanum habrochaites</i>) Affects Tomato Photosynthesis and Water Relations. Crop Science, 2014, 54, 779-784.	0.8	7
23	Root Strategies for Nitrate Assimilation. Soil Biology, 2014, , 251-267.	0.6	7
24	Chillingâ€induced water stress: Variation in shoot turgor maintenance among wild tomato species from diverse habitats. American Journal of Botany, 2013, 100, 1991-1999.	0.8	13
25	The effects of rising atmospheric carbon dioxide on shoot-root nitrogen and water signaling. Frontiers in Plant Science, 2013, 4, 304.	1.7	10
26	The Effects of Inorganic Nitrogen form and CO2 Concentration on Wheat Yield and Nutrient Accumulation and Distribution. Frontiers in Plant Science, 2012, 3, 195.	1.7	65
27	Deposition of ammonium and nitrate in the roots of maize seedlings supplied with different nitrogen salts. Journal of Experimental Botany, 2012, 63, 1997-2006.	2.4	28
28	CO₂ enrichment inhibits shoot nitrate assimilation in C₃ but not C₄ plants and slows growth under nitrate in C₃ plants. Ecology, 2012, 93, 355-367.	1.5	132
29	Carbon Dioxide Enrichment Inhibits Nitrate Assimilation in Wheat and <i>Arabidopsis</i>. Science, 2010, 328, 899-903.	6.0	487
30	Estimating nitrogen uptake of individual roots in container- and field-grown plants using a 15N-depletion approach. Functional Plant Biology, 2009, 36, 621.	1.1	19
31	Photorespiratory Metabolism: Genes, Mutants, Energetics, and Redox Signaling. Annual Review of Plant Biology, 2009, 60, 455-484.	8.6	518
32	As carbon dioxide rises, food quality will decline without careful nitrogen management. California Agriculture, 2009, 63, 67-72.	0.5	25
33	Rising carbon dioxide concentrations and the future of crop production. Journal of the Science of Food and Agriculture, 2006, 86, 1289-1291.	1.7	22
34	Influence of Inorganic Nitrogen and pH on the Elongation of Maize Seminal Roots. Annals of Botany, 2006, 97, 867-873.	1.4	39
35	Rapid decline in nitrate uptake and respiration with age in fine lateral roots of grape: implications for root efficiency and competitive effectiveness. New Phytologist, 2005, 165, 493-502.	3.5	159
36	A major QTL introgressed from wild Lycopersicon hirsutum confers chilling tolerance to cultivated tomato (Lycopersicon esculentum). Theoretical and Applied Genetics, 2005, 111, 898-905.	1.8	45

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37	Coordination Between Shoots and Roots. , 2005, , 241-256.		3
38	Nitrate assimilation in plant shoots depends on photorespiration. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 11506-11510.	3.3	279
39	Water relations under root chilling in a sensitive and tolerant tomato species. Plant, Cell and Environment, 2004, 27, 971-979.	2.8	112
40	Crossroads of Animal, Plant, and Microbial Physiological Ecology. BioScience, 2003, 53, 256.	2.2	0
41	Nitrogen assimilation and growth of wheat under elevated carbon dioxide. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 1730-1735.	3.3	193
42	Root Development and Absorption of Ammonium and Nitrate from the Rhizosphere. Journal of Plant Growth Regulation, 2002, 21, 416-431.	2.8	144
43	Root Structure and Function. Journal of Plant Growth Regulation, 2002, 21, 245-246.	2.8	0
44	Nickel Supplements Improve Growth when Foliar Urea is the Sole Nitrogen Source for Tomato. Journal of the American Society for Horticultural Science, 1998, 123, 556-559.	0.5	18
45	Ammonium Does Not Induce Ammonium Absorption in Tomatoes. Journal of the American Society for Horticultural Science, 1998, 123, 787-790.	0.5	4
46	Interactions between Inorganic Nitrogen Nutrition and Root Development. Zeitschrift Fur Pflanzenernahrung Und Bodenkunde = Journal of Plant Nutrition and Plant Science, 1997, 160, 253-259.	0.4	33
47	Nitrogen as a Limiting Factor: Crop Acquisition of Ammonium and Nitrate. , 1997, , 145-172.		41
48	Absorption and Assimilation of Foliarly Applied Urea in Tomato. Journal of the American Society for Horticultural Science, 1996, 121, 1117-1121.	0.5	21
49	Assessment of methylammonium as an analog for ammonium in plant uptake from soil. Plant and Soil, 1994, 164, 195-202.	1.8	4
50	Root Respiration Associated with Ammonium and Nitrate Absorption and Assimilation by Barley. Plant Physiology, 1992, 99, 1294-1301.	2.3	400
51	CO₂ Inhibits Respiration in Leaves of <i>Rumex crispus</i> L.. Plant Physiology, 1992, 98, 757-760.	2.3	127
52	Ammonium and nitrate as nitrogen sources in two Eriophorum species. Oecologia, 1991, 88, 570-573.	0.9	29
53	Influence of Root NH4+ and NO3- Content on the Temperature Response of Net NH4+ and NO3- Uptake in Chilling Sensitive and Chilling ResistantLycopersiconTaxa. Journal of Experimental Botany, 1991, 42, 331-338.	2.4	20
54	Root distribution in relation to soil nitrogen availability in field-grown tomatoes. Plant and Soil, 1990, 128, 115-126.	1.8	77

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55	Measurement of Net Fluxes of Ammonium and Nitrate at the Surface of Barley Roots Using Ion-Selective Microelectrodes. Plant Physiology, 1990, 93, 271-280.	2.3	77
56	Effects of Exposure to Ammonium and Transplant Shock upon the Induction of Nitrate Absorption. Plant Physiology, 1990, 94, 85-90.	2.3	65
57	Oxygen and Carbon Dioxide Fluxes from Barley Shoots Depend on Nitrate Assimilation. Plant Physiology, 1989, 91, 352-356.	2.3	141
58	Continuous and Steady-State Nutrient Absorption by Intact Plants. , 1989, , 147-163.		26
59	Kinetics of ammonium and nitrate uptake among wild and cultivated tomatoes. Oecologia, 1988, 76, 336-340.	0.9	53
60	Root Excision Decreases Nutrient Absorption and Gas Fluxes. Plant Physiology, 1988, 87, 794-796.	2.3	80
61	Plant Responses to Multiple Environmental Factors. BioScience, 1987, 37, 49-57.	2.2	1,109
62	Plant economics. Trends in Ecology and Evolution, 1986, 1, 98-100.	4.2	16
63	The Influence of Ammonium and Chloride on Potassium and Nitrate Absorption by Barley Roots Depends on Time of Exposure and Cultivar. Plant Physiology, 1986, 81, 67-69.	2.3	55
64	Wild and cultivated barleys show similar affinities for mineral nitrogen. Oecologia, 1985, 65, 555-557.	0.9	51
65	Relationship between Mineral Nitrogen Influx and Transpiration in Radish and Tomato. Plant Physiology, 1984, 76, 827-828.	2.3	53
66	Varietal differences in salt-induced respiration in barley. Plant Science Letters, 1984, 35, 1-3.	1.9	39
67	Differences in Steady-State Net Ammonium and Nitrate Influx by Cold- and Warm-Adapted Barley Varieties. Plant Physiology, 1981, 68, 1064-1067.	2.3	67
68	Materials and methods for carbon dioxide and water exchange analysis^{Â§}. Plant, Cell and Environment, 1980, 3, 371-376.	2.8	71
69	Salt Requirement for Crassulacean Acid Metabolism in the Annual Succulent, <i>Mesembryanthemum crystallinum</i>. Plant Physiology, 1979, 63, 749-753.	2.3	26
70	High productivity and photosynthetic flexibility in a CAM plant. Oecologia, 1979, 38, 35-43.	0.9	55
71	Diurnal Ion Fluctuations in the Mesophyll Tissue of the Crassulacean Acid Metabolism Plant Mesembryanthemum crystallinum. Plant Physiology, 1979, 64, 919-923.	2.3	12
72	Investigations of ion absorption during NH4+ exposure I. Relationship between H+ efflux and NO3â^’ absorption. , 0, .		4