Bruce Bugbee

List of Publications by Year
in descending order

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Version: 2024-02-01

74 papers	3,587 citations	159585 30 h-index	138484 58 g-index
75 all docs	75 docs citations	75 times ranked	3515 citing authors

#	Article	IF	Citations
1	Photon efficacy in horticulture. , 2022, , 115-128.		1
2	Toward an optimal spectrum for photosynthesis and plant morphology in LED-based crop cultivation. , 2022, , 309-327.		6
3	Cannabis lighting: Decreasing blue photon fraction increases yield but efficacy is more important for cost effective production of cannabinoids. PLoS ONE, 2021, 16, e0248988.	2.5	22
4	Does Green Really Mean Go? Increasing the Fraction of Green Photons Promotes Growth of Tomato but Not Lettuce or Cucumber. Plants, 2021, 10, 637.	3.5	14
5	Improving the Predictive Value of Phytochrome Photoequilibrium: Consideration of Spectral Distortion Within a Leaf. Frontiers in Plant Science, 2021, 12, 596943.	3.6	18
6	Optimizing Nitrogen Fixation and Recycling for Food Production in Regenerative Life Support Systems. Frontiers in Astronomy and Space Sciences, 2021, 8, .	2.8	11
7	Why Far-Red Photons Should Be Included in the Definition of Photosynthetic Photons and the Measurement of Horticultural Fixture Efficacy. Frontiers in Plant Science, 2021, 12, 693445.	3.6	37
8	Photons from NIR LEDs can delay flowering in short-day soybean and Cannabis: Implications for phytochrome activity. PLoS ONE, 2021, 16, e0255232.	2.5	3
9	Evaluation of Three Electrochemical Dissolved Oxygen Meters. HortTechnology, 2021, 31, 428-431.	0.9	2
10	Far-red Fraction: An Improved Metric for Characterizing Phytochrome Effects on Morphology. Journal of the American Society for Horticultural Science, 2021, 146, 3-13.	1.0	21
11	Water Stress in Dwarfing Cherry Rootstocks: Increased Carbon Partitioning to Roots Facilitates Improved Tolerance of Drought. Horticulturae, 2021, 7, 424.	2.8	3
12	Colorimetric determination of urea using diacetyl monoxime with strong acids. PLoS ONE, 2021, 16, e0259760.	2.5	21
13	Farâ€red photons have equivalent efficiency to traditional photosynthetic photons: Implications for redefining photosynthetically active radiation. Plant, Cell and Environment, 2020, 43, 1259-1272.	5.7	129
14	Steadyâ€state stomatal responses of <scp>C₃</scp> and <scp>C₄</scp> species to blue light fraction: Interactions with <scp>CO₂</scp> concentration. Plant, Cell and Environment, 2020, 43, 3020-3032.	5.7	11
15	Substituting Far-Red for Traditionally Defined Photosynthetic Photons Results in Equal Canopy Quantum Yield for CO2 Fixation and Increased Photon Capture During Long-Term Studies: Implications for Re-Defining PAR. Frontiers in Plant Science, 2020, 11, 581156.	3.6	55
16	From physics to fixtures to food: current and potential LED efficacy. Horticulture Research, 2020, 7, 56.	6.3	119
17	Phototrophic N2 and CO2 Fixation Using a Rhodopseudomonas palustris-H2 Mediated Electrochemical System With Infrared Photons. Frontiers in Microbiology, 2019, 10, 1817.	3.5	25
18	Radiometric Method for Determining Canopy Stomatal Conductance in Controlled Environments. Agronomy, 2019, 9, 114.	3.0	6

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19	Drought Tolerance of Navajo and Lovell Peach Trees: Precision Water Stress Using Automated Weighing Lysimeters. Hortscience: A Publication of the American Society for Hortcultural Science, 2019, 54, 799-803.	1.0	6
20	Reduced Root-zone Phosphorus Concentration Decreases Iron Chlorosis in Maize in Soilless Substrates. HortTechnology, 2017, 27, 490-493.	0.9	4
21	Salinity tolerance of three competing rangeland plant species: Studies in hydroponic culture. Ecology and Evolution, 2017, 7, 10916-10929.	1.9	10
22	Economics of LED Lighting. , 2017, , 81-99.		5
23	The invasive annual cheatgrass releases more nitrogen than crested wheatgrass through root exudation and senescence. Oecologia, 2016, 181, 971-983.	2.0	30
24	Sensitivity of Seven Diverse Species to Blue and Green Light: Interactions with Photon Flux. PLoS ONE, 2016, 11, e0163121.	2.5	170
25	Analysis of Environmental Effects on Leaf Temperature under Sunlight, High Pressure Sodium and Light Emitting Diodes. PLoS ONE, 2015, 10, e0138930.	2.5	67
26	Economic Analysis of Greenhouse Lighting: Light Emitting Diodes vs. High Intensity Discharge Fixtures. PLoS ONE, 2014, 9, e99010.	2.5	185
27	Enhancing lipid production of the marine diatom Chaetoceros gracilis: synergistic interactions of sodium chloride and silicon. Journal of Applied Phycology, 2014, 26, 1351-1357.	2.8	33
28	<i>In situ</i> measurement of leaf chlorophyll concentration: analysis of the optical/absolute relationship. Plant, Cell and Environment, 2014, 37, 2508-2520.	5.7	167
29	Nitrogen retention and partitioning at the initiation of lipid accumulation in nitrogenâ€deficient algae. Journal of Phycology, 2014, 50, 356-365.	2.3	23
30	Photobiological Interactions of Blue Light and Photosynthetic Photon Flux: Effects of Monochromatic and Broadâ€Spectrum Light Sources. Photochemistry and Photobiology, 2014, 90, 574-584.	2.5	113
31	Ceramic Aggregate Sorption and Desorption Chemistry: Implications for Use as a Component of Soilless Media. Journal of Plant Nutrition, 2014, 37, 1345-1357.	1.9	17
32	Biodiesel from Microalgae, Yeast, and Bacteria: Engine Performance and Exhaust Emissions. Energy & Fuels, 2013, 27, 220-228.	5.1	121
33	Understanding precision nitrogen stress to optimize the growth and lipid content tradeoff in oleaginous green microalgae. Bioresource Technology, 2013, 131, 188-194.	9.6	178
34	Light level does not alter ethylene sensitivity in radish or pea. Plant Growth Regulation, 2013, 71, 67-75.	3.4	1
35	Macroâ€and micronutrientâ€release characteristics of three polymerâ€coated fertilizers: Theory and measurements. Journal of Plant Nutrition and Soil Science, 2013, 176, 76-88.	1.9	61
36	Spectral Effects of Three Types of White Light-emitting Diodes on Plant Growth and Development: Absolute versus Relative Amounts of Blue Light. Hortscience: A Publication of the American Society for Hortcultural Science, 2013, 48, 504-509.	1.0	153

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37	Irrigation Frequency Differentially Alters Vegetative Growth and Seed Head Development of <i>Poa annua</i> L. Biotypes. Crop Science, 2011, 51, 314-322.	1.8	4
38	Composition and Functional Properties of Apogee and Perigee Compared to Common Terrestrial Wheat Cultivars. International Journal of Food Properties, 2011, 14, 996-1006.	3.0	2
39	A model of canopy photosynthesis incorporating protein distribution through the canopy and its acclimation to light, temperature and CO2. Annals of Botany, 2010, 106, 735-749.	2.9	49
40	Mass Transport from Soil to Plants. , 2010, , 389-411.		4
41	Chemical Hydrophobicity and Uptake by Plant Roots. Environmental Science & Technology, 2009, 43, 324-329.	10.0	277
42	Changes in Crested Wheatgrass Root Exudation Caused by Flood, Drought, and Nutrient Stress. Journal of Environmental Quality, 2007, 36, 904-912.	2.0	131
43	Differences in the Response of Wheat, Soybean and Lettuce to Reduced Blue RadiationÂ¶. Photochemistry and Photobiology, 2007, 73, 199-207.	2.5	9
44	Evidence for Yellow Light Suppression of Lettuce GrowthÂ¶. Photochemistry and Photobiology, 2007, 73, 208-212.	2.5	2
45	Trichloroethylene Uptake by Apple and Peach Trees and Transfer to Fruit. Environmental Science & Technology, 2006, 40, 4788-4793.	10.0	25
46	An Axenic Plant Culture System for Optimal Growth in Long-Term Studies. Journal of Environmental Quality, 2006, 35, 590-598.	2.0	13
47	UPTAKE OF NONYLPHENOL AND NONYLPHENOL ETHOXYLATES BY CRESTED WHEATGRASS. Environmental Toxicology and Chemistry, 2005, 24, 2965.	4.3	16
48	Acclimation of Plant Populations to Shade: Photosynthesis, Respiration, and Carbon Use Efficiency. Journal of the American Society for Horticultural Science, 2005, 130, 918-927.	1.0	31
49	Characterizing the Environmental Response of a Gibberellic Acid-Deficient Rice for Use as a Model Crop. Agronomy Journal, 2004, 96, 1172-1181.	1.8	8
50	Night Temperature has a Minimal Effect on Respiration and Growth in Rapidly Growing Plants. Annals of Botany, 2004, 94, 155-166.	2.9	83
51	Ethylene Synthesis and Sensitivity in Crop Plants. Hortscience: A Publication of the American Society for Hortcultural Science, 2004, 39, 1546-1552.	1.0	20
52	Long-term Blue Light Effects on the Histology of Lettuce and Soybean Leaves and Stems. Journal of the American Society for Horticultural Science, 2004, 129, 467-472.	1.0	79
53	Ethylene synthesis and sensitivity in crop plants. Hortscience: A Publication of the American Society for Hortcultural Science, 2004, 39, 1546-52.	1.0	3
54	Anaerobic conditions improve germination of a gibberellic acid deficient rice. Crop Science, 2002, 42, 651-654.	1.8	5

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55	Sensitivity of Wheat and Rice to Low Levels of Atmospheric Ethylene. Crop Science, 2002, 42, 746-753.	1.8	37
56	Sensitivity of Wheat and Rice to Low Levels of Atmospheric Ethylene. Crop Science, 2002, 42, 746.	1.8	21
57	Comparative floral development of Mir-grown and ethylene-treated, earth-grown Super Dwarf wheat. Journal of Plant Physiology, 2001, 158, 1051-1060.	3.5	55
58	Differences in the Response of Wheat, Soybean and Lettuce to Reduced Blue RadiationÂ¶. Photochemistry and Photobiology, 2001, 73, 199.	2.5	117
59	Evidence for Yellow Light Suppression of Lettuce GrowthÂ¶. Photochemistry and Photobiology, 2001, 73, 208.	2.5	62
60	A novel laboratory system for determining fate of volatile organic compounds in planted systems. Environmental Toxicology and Chemistry, 2000, 19, 888-894.	4.3	24
61	Uptake of trichloroethylene by hybrid poplar trees grown hydroponically in flowâ€through plant growth chambers. Environmental Toxicology and Chemistry, 2000, 19, 895-903.	4.3	67
62	A NOVEL LABORATORY SYSTEM FOR DETERMINING FATE OF VOLATILE ORGANIC COMPOUNDS IN PLANTED SYSTEMS. Environmental Toxicology and Chemistry, 2000, 19, 888.	4.3	1
63	UPTAKE OF TRICHLOROETHYLENE BY HYBRID POPLAR TREES GROWN HYDROPONICALLY IN FLOW-THROUGH PLANT GROWTH CHAMBERS. Environmental Toxicology and Chemistry, 2000, 19, 895.	4.3	7
64	Toward an Understanding of Blue Light Effects on Diverse Species: Implications for Advanced Life-Support Systems. , 1999, , .		2
65	Evaluation and modification of commercial infra-red transducers for leaf temperature measurement. Advances in Space Research, 1998, 22, 1425-1434.	2.6	41
66	Superâ€Optimal CO² Reduces Seed Yield But Not Vegetative Growth in Wheat. Crop Science, 1997, 37, 1215-1222.	1.8	36
67	Registration of â€˜USUâ€Apogeeâ€™ Wheat. Crop Science, 1997, 37, 626-626.	1.8	23
68	Accuracy of Quantum Sensors Measuring Yield Photon Flux and Photosynthetic Photon Flux. Hortscience: A Publication of the American Society for Hortcultural Science, 1993, 28, 1197-1200.	1.0	43
69	Morphological Responses of Wheat to Blue Light. Journal of Plant Physiology, 1992, 139, 339-342.	3.5	47
70	The Limits of Crop Productivity. BioScience, 1992, 42, 494-502.	4.9	72
71	Inherent Limitations of Nondestructive Chlorophyll Meters: A Comparison of Two Types of Meters. Hortscience: A Publication of the American Society for Hortcultural Science, 1992, 27, 69-71.	1.0	242
72	Morphological Responses of Wheat to Changes in Phytochrome Photoequilibrium. Plant Physiology, 1991, 97, 359-365.	4.8	49

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73	Modeling Light and Temperature Effects on Leaf Emergence in Wheat and Barley. Crop Science, 1991, 31, 1218-1224.	1.8	30
74	Shortwave Radiation. Agronomy, 0, , 43-57.	0.2	2