

John R Evans

List of Publications by Year in descending order

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109
papers

14,538
citations

26630

56
h-index

26613

107
g-index

117
all docs

117
docs citations

117
times ranked

11546
citing authors

#	ARTICLE	IF	CITATIONS
1	Photosynthesis and nitrogen relationships in leaves of C3 plants. <i>Oecologia</i> , 1989, 78, 9-19.	2.0	2,873
2	Nitrogen and Photosynthesis in the Flag Leaf of Wheat (<i>Triticum aestivum</i> L.). <i>Plant Physiology</i> , 1983, 72, 297-302.	4.8	677
3	Resistances along the CO ₂ diffusion pathway inside leaves. <i>Journal of Experimental Botany</i> , 2009, 60, 2235-2248.	4.8	492
4	Photosynthetic nitrogen-use efficiency of species that differ inherently in specific leaf area. <i>Oecologia</i> , 1998, 116, 26-37.	2.0	476
5	Physiological and structural tradeoffs underlying the leaf economics spectrum. <i>New Phytologist</i> , 2017, 214, 1447-1463.	7.3	412
6	The Importance of Energy Balance in Improving Photosynthetic Productivity \hat{A} . <i>Plant Physiology</i> , 2011, 155, 70-78.	4.8	394
7	The kinetics of ribulose-1,5-bisphosphate carboxylase/oxygenase in vivo inferred from measurements of photosynthesis in leaves of transgenic tobacco. <i>Planta</i> , 1994, 195, 88-97.	3.2	366
8	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. <i>New Phytologist</i> , 2015, 206, 614-636.	7.3	350
9	Improving Photosynthesis. <i>Plant Physiology</i> , 2013, 162, 1780-1793.	4.8	338
10	Estimating mesophyll conductance to CO ₂ : methodology, potential errors, and recommendations. <i>Journal of Experimental Botany</i> , 2009, 60, 2217-2234.	4.8	289
11	Temperature responses of mesophyll conductance differ greatly between species. <i>Plant, Cell and Environment</i> , 2015, 38, 629-637.	5.7	271
12	Reduction of Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase Content by Antisense RNA Reduces Photosynthesis in Transgenic Tobacco Plants. <i>Plant Physiology</i> , 1992, 98, 294-302.	4.8	259
13	Leaf Respiration of Snow Gum in the Light and Dark. Interactions between Temperature and Irradiance. <i>Plant Physiology</i> , 2000, 122, 915-924.	4.8	249
14	The nitrogen cost of photosynthesis. <i>Journal of Experimental Botany</i> , 2019, 70, 7-15.	4.8	224
15	Faster Rubisco Is the Key to Superior Nitrogen-Use Efficiency in NADP-Malic Enzyme Relative to NAD-Malic Enzyme C ₄ Grasses. <i>Plant Physiology</i> , 2005, 137, 638-650.	4.8	223
16	Linking Development and Determinacy with Organic Acid Efflux from Proteoid Roots of White Lupin Grown with Low Phosphorus and Ambient or Elevated Atmospheric CO ₂ Concentration ¹ . <i>Plant Physiology</i> , 1999, 120, 705-716.	4.8	211
17	Proteoid Roots. <i>Physiology and Development</i> . <i>Plant Physiology</i> , 1999, 121, 317-323.	4.8	210
18	Leaf anatomy enables more equal access to light and CO ₂ between chloroplasts. <i>New Phytologist</i> , 1999, 143, 93-104.	7.3	206

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19	Specific reduction of chloroplast carbonic anhydrase activity by antisense RNA in transgenic tobacco plants has a minor effect on photosynthetic CO ₂ assimilation. <i>Planta</i> , 1994, 193, 331-340.	3.2	197
20	Temperature response of carbon isotope discrimination and mesophyll conductance in tobacco. <i>Plant, Cell and Environment</i> , 2013, 36, 745-756.	5.7	193
21	Hyperspectral reflectance as a tool to measure biochemical and physiological traits in wheat. <i>Journal of Experimental Botany</i> , 2018, 69, 483-496.	4.8	190
22	Construction costs, chemical composition and payback time of high- and low-irradiance leaves. <i>Journal of Experimental Botany</i> , 2006, 57, 355-371.	4.8	181
23	The cyanobacterial CCM as a source of genes for improving photosynthetic CO ₂ fixation in crop species. <i>Journal of Experimental Botany</i> , 2013, 64, 753-768.	4.8	178
24	A simple new equation for the reversible temperature dependence of photosynthetic electron transport: a study on soybean leaf. <i>Functional Plant Biology</i> , 2004, 31, 275.	2.1	167
25	Relationship between the inhibition of leaf respiration by light and enhancement of leaf dark respiration following light treatment. <i>Functional Plant Biology</i> , 1998, 25, 437.	2.1	161
26	Acquisition and Diffusion of CO ₂ in Higher Plant Leaves. <i>Advances in Photosynthesis and Respiration</i> , 2000, , 321-351.	1.0	148
27	Influence of leaf dry mass per area, CO ₂ , and irradiance on mesophyll conductance in sclerophylls. <i>Journal of Experimental Botany</i> , 2009, 60, 2303-2314.	4.8	145
28	Effects of growth and measurement light intensities on temperature dependence of CO ₂ assimilation rate in tobacco leaves. <i>Plant, Cell and Environment</i> , 2010, 33, 332-343.	5.7	144
29	Temperature response of mesophyll conductance in cultivated and wild <i>Oryza</i> species with contrasting mesophyll cell wall thickness. <i>Plant, Cell and Environment</i> , 2011, 34, 1999-2008.	5.7	141
30	Specific reduction of chloroplast glyceraldehyde-3-phosphate dehydrogenase activity by antisense RNA reduces CO ₂ assimilation via a reduction in ribulose biphosphate regeneration in transgenic tobacco plants. <i>Planta</i> , 1995, 195, 369-378.	3.2	135
31	Differences between Wheat Genotypes in Specific Activity of Ribulose-1,5-bisphosphate Carboxylase and the Relationship to Photosynthesis. <i>Plant Physiology</i> , 1984, 74, 759-765.	4.8	132
32	Using tunable diode laser spectroscopy to measure carbon isotope discrimination and mesophyll conductance to CO ₂ diffusion dynamically at different CO ₂ concentrations. <i>Plant, Cell and Environment</i> , 2011, 34, 580-591.	5.7	132
33	Trait correlation networks: a whole-plant perspective on the recently criticized leaf economic spectrum. <i>New Phytologist</i> , 2014, 201, 378-382.	7.3	131
34	Leaf mesophyll diffusion conductance in 35 Australian sclerophylls covering a broad range of foliage structural and physiological variation. <i>Journal of Experimental Botany</i> , 2009, 60, 2433-2449.	4.8	121
35	Light and CO ₂ do not affect the mesophyll conductance to CO ₂ diffusion in wheat leaves. <i>Journal of Experimental Botany</i> , 2009, 60, 2291-2301.	4.8	117
36	Growth of the C ₄ dicot <i>Flaveria bidentis</i> : photosynthetic acclimation to low light through shifts in leaf anatomy and biochemistry. <i>Journal of Experimental Botany</i> , 2010, 61, 4109-4122.	4.8	116

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37	Enhancing C3 Photosynthesis. <i>Plant Physiology</i> , 2010, 154, 589-592.	4.8	113
38	Carbon dioxide and water transport through plant aquaporins. <i>Plant, Cell and Environment</i> , 2017, 40, 938-961.	5.7	112
39	High-resolution temperature responses of leaf respiration in snow gum (<i>Eucalyptus Tj ETQq1</i>). <i>Plant, Cell and Environment</i> , 2013, 36, 1268-1284.	5.7	107
40	A comment on the quantitative significance of aerobic methane release by plants. <i>Functional Plant Biology</i> , 2006, 33, 521.	2.1	103
41	The relationship between CO ₂ -assimilation rate, Rubisco carbamylation and Rubisco activase content in activase-deficient transgenic tobacco suggests a simple model of activase action. <i>Planta</i> , 1996, 198, 604-613.	3.2	101
42	Nitrogen in cell walls of sclerophyllous leaves accounts for little of the variation in photosynthetic nitrogen-use efficiency. <i>Plant, Cell and Environment</i> , 2009, 32, 259-270.	5.7	97
43	Online ¹³ C and ¹⁸ O oxygen isotope fractionation allows estimation of mesophyll conductance in C ₄ plants, and reveals that mesophyll conductance decreases as leaves age in both C ₄ and C ₃ plants. <i>New Phytologist</i> , 2016, 210, 875-889.	7.3	95
44	Leaf-level photosynthetic capacity in lowland Amazonian and high-elevation Andean tropical moist forests of Peru. <i>New Phytologist</i> , 2017, 214, 1002-1018.	7.3	89
45	Growth and nutritive value of cassava (<i>Manihot esculenta</i> Cranz.) are reduced when grown in elevated CO ₂ . <i>Plant Biology</i> , 2009, 11, 76-82.	3.8	88
46	The response of fast- and slow-growing <i>Acacia</i> species to elevated atmospheric CO ₂ : an analysis of the underlying components of relative growth rate. <i>Oecologia</i> , 1999, 120, 544-554.	2.0	85
47	Dual-purpose cereals: can the relative influences of management and environment on crop recovery and grain yield be dissected?. <i>Crop and Pasture Science</i> , 2011, 62, 930.	1.5	84
48	Strong thermal acclimation of photosynthesis in tropical and temperate wet-forest tree species: the importance of altered Rubisco content. <i>Global Change Biology</i> , 2017, 23, 2783-2800.	9.5	84
49	Is a Low Internal Conductance to CO ₂ Diffusion a Consequence of Succulence in Plants with Crassulacean Acid Metabolism?. <i>Functional Plant Biology</i> , 1997, 24, 777.	2.1	76
50	AusTraits, a curated plant trait database for the Australian flora. <i>Scientific Data</i> , 2021, 8, 254.	5.3	73
51	Mesophyll conductance: walls, membranes and spatial complexity. <i>New Phytologist</i> , 2021, 229, 1864-1876.	7.3	72
52	Photosynthesis within isobilateral <i>Eucalyptus pauciflora</i> leaves. <i>New Phytologist</i> , 2006, 171, 771-782.	7.3	69
53	Stomatal crypts may facilitate diffusion of CO ₂ to adaxial mesophyll cells in thick sclerophylls. <i>Plant, Cell and Environment</i> , 2009, 32, 1596-1611.	5.7	69
54	Photosynthesis at an extreme end of the leaf trait spectrum: how does it relate to high leaf dry mass per area and associated structural parameters?. <i>Journal of Experimental Botany</i> , 2010, 61, 3015-3028.	4.8	67

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55	Phosphorus availability and elevated CO ₂ affect biological nitrogen fixation and nutrient fluxes in a clover-dominated sward. <i>New Phytologist</i> , 2006, 169, 157-167.	7.3	66
56	Photosynthesis is strongly reduced by antisense suppression of chloroplastic cytochrome b _f complex in transgenic tobacco. <i>Functional Plant Biology</i> , 1998, 25, 445.	2.1	60
57	Phosphorus acquisition from soil by white lupin (<i>Lupinus albus</i> L.) and soybean (<i>Glycine max</i> L.), species with contrasting root development. <i>Plant and Soil</i> , 2003, 248, 271-283.	3.7	60
58	Functional Analysis of Corn Husk Photosynthesis. <i>Plant Physiology</i> , 2011, 156, 503-513.	4.8	59
59	Embracing 3D Complexity in Leaf Carbon-Water Exchange. <i>Trends in Plant Science</i> , 2019, 24, 15-24.	8.8	55
60	Predicting dark respiration rates of wheat leaves from hyperspectral reflectance. <i>Plant, Cell and Environment</i> , 2019, 42, 2133-2150.	5.7	54
61	Stomatal, mesophyll conductance, and biochemical limitations to photosynthesis during induction. <i>Plant Physiology</i> , 2021, 185, 146-160.	4.8	53
62	Effects of reduced carbonic anhydrase activity on CO ₂ assimilation rates in <i>Setaria viridis</i> : a transgenic analysis. <i>Journal of Experimental Botany</i> , 2017, 68, 299-310.	4.8	52
63	Grazing winter wheat relieves plant water stress and transiently enhances photosynthesis. <i>Functional Plant Biology</i> , 2010, 37, 726.	2.1	51
64	Nitrogen fertilization enhances water-use efficiency in a saline environment. <i>Plant, Cell and Environment</i> , 2010, 33, 344-357.	5.7	50
65	Potential Errors in Electron Transport Rates Calculated from Chlorophyll Fluorescence as Revealed by a Multilayer Leaf Model. <i>Plant and Cell Physiology</i> , 2009, 50, 698-706.	3.1	49
66	From green to gold: agricultural revolution for food security. <i>Journal of Experimental Botany</i> , 2020, 71, 2211-2215.	4.8	49
67	PrometheusWiki Gold Leaf Protocol: gas exchange using LI-COR 6400. <i>Functional Plant Biology</i> , 2014, 41, 223.	2.1	48
68	Genetic variation for photosynthetic capacity and efficiency in spring wheat. <i>Journal of Experimental Botany</i> , 2020, 71, 2299-2311.	4.8	48
69	Rubisco: the consequences of altering its expression and activation in transgenic plants. <i>Journal of Experimental Botany</i> , 1995, 46, 1293-1300.	4.8	47
70	Recovery dynamics of rainfed winter wheat after livestock grazing 1. Growth rates, grain yields, soil water use and water-use efficiency. <i>Crop and Pasture Science</i> , 2011, 62, 947.	1.5	47
71	Recovery dynamics of rainfed winter wheat after livestock grazing 2. Light interception, radiation-use efficiency and dry-matter partitioning. <i>Crop and Pasture Science</i> , 2011, 62, 960.	1.5	47
72	Using a mathematical framework to examine physiological changes in winter wheat after livestock grazing. <i>Field Crops Research</i> , 2012, 136, 116-126.	5.1	47

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73	Effects of elevated atmospheric CO ₂ , cutting frequency, and differential day/night atmospheric warming on root growth and turnover of Phalaris swards. <i>Global Change Biology</i> , 2007, 13, 1040-1052.	9.5	46
74	Using a mathematical framework to examine physiological changes in winter wheat after livestock grazing. <i>Field Crops Research</i> , 2012, 136, 127-137.	5.1	46
75	Chloroplast to Leaf. <i>Ecological Studies</i> , 2004, , 15-41.	1.2	39
76	Effects of mesophyll conductance on vegetation responses to elevated CO ₂ concentrations in a land surface model. <i>Global Change Biology</i> , 2019, 25, 1820-1838.	9.5	38
77	Biochemical model of C ₃ photosynthesis applied to wheat at different temperatures. <i>Plant, Cell and Environment</i> , 2017, 40, 1552-1564.	5.7	37
78	Antisense reductions in the PsbO protein of photosystem II leads to decreased quantum yield but similar maximal photosynthetic rates. <i>Journal of Experimental Botany</i> , 2012, 63, 4781-4795.	4.8	36
79	Drought increases heat tolerance of leaf respiration in Eucalyptus globulus saplings grown under both ambient and elevated atmospheric [CO ₂] and temperature. <i>Journal of Experimental Botany</i> , 2014, 65, 6471-6485.	4.8	34
80	Association between water and carbon dioxide transport in leaf plasma membranes: assessing the role of aquaporins. <i>Plant, Cell and Environment</i> , 2017, 40, 789-801.	5.7	32
81	Chapter 8 Nitrogen and Water Use Efficiency of C ₄ Plants. <i>Advances in Photosynthesis and Respiration</i> , 2010, , 129-146.	1.0	31
82	Absolute absorption and relative fluorescence excitation spectra of the five major chlorophyll-protein complexes from spinach thylakoid membranes. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 1987, 892, 75-82.	1.0	30
83	Mesophyll conductance does not contribute to greater photosynthetic rate per unit nitrogen in temperate compared with tropical evergreen wetland forest tree leaves. <i>New Phytologist</i> , 2018, 218, 492-505.	7.3	30
84	Light Quality Affects Chloroplast Electron Transport Rates Estimated from Chl Fluorescence Measurements. <i>Plant and Cell Physiology</i> , 2017, 58, 1652-1660.	3.1	28
85	A Decrease in Mesophyll Conductance by Cell-Wall Thickening Contributes to Photosynthetic Downregulation. <i>Plant Physiology</i> , 2020, 183, 1600-1611.	4.8	28
86	Genome-wide identification and characterisation of Aquaporins in <i>Nicotiana tabacum</i> and their relationships with other Solanaceae species. <i>BMC Plant Biology</i> , 2020, 20, 266.	3.6	27
87	Wheat physiology predictor: predicting physiological traits in wheat from hyperspectral reflectance measurements using deep learning. <i>Plant Methods</i> , 2021, 17, 108.	4.3	27
88	Resolving methane fluxes. <i>New Phytologist</i> , 2007, 175, 1-4.	7.3	24
89	Changes in Nutritional Value of Cyanogenic <i>Trifolium repens</i> Grown at Elevated Atmospheric CO ₂ . <i>Journal of Chemical Ecology</i> , 2009, 35, 476-478.	1.8	23
90	A reporting format for leaf-level gas exchange data and metadata. <i>Ecological Informatics</i> , 2021, 61, 101232.	5.2	22

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91	A unique web resource for physiology, ecology and the environmental sciences: PrometheusWiki. <i>Functional Plant Biology</i> , 2010, 37, 687.	2.1	20
92	Uncovering candidate genes involved in photosynthetic capacity using unexplored genetic variation in Spring Wheat. <i>Plant Biotechnology Journal</i> , 2021, 19, 1537-1552.	8.3	19
93	Effects of water availability, nitrogen supply and atmospheric CO ₂ concentrations on plant nitrogen natural abundance values. <i>Functional Plant Biology</i> , 2006, 33, 219.	2.1	17
94	Phosphorus status determines biomass response to elevated CO ₂ in a legume : C ₄ grass community. <i>Global Change Biology</i> , 2005, 11, 051013014052003-???	9.5	14
95	Exploiting transplastomically modified Rubisco to rapidly measure natural diversity in its carbon isotope discrimination using tuneable diode laser spectroscopy. <i>Journal of Experimental Botany</i> , 2014, 65, 3759-3767.	4.8	13
96	Effects of growth temperature on photosynthetic gas exchange characteristics and hydraulic anatomy in leaves of two cold-climate <i>Poa</i> species. <i>Functional Plant Biology</i> , 2011, 38, 54.	2.1	12
97	Effect of leaf temperature on the estimation of photosynthetic and other traits of wheat leaves from hyperspectral reflectance. <i>Journal of Experimental Botany</i> , 2021, 72, 1271-1281.	4.8	12
98	Chloroplast to Leaf. <i>Ecological Studies</i> , 2004, , 107-132.	1.2	10
99	Phosphorus deficiency alters scaling relationships between leaf gas exchange and associated traits in a wide range of contrasting <i>Eucalyptus</i> species. <i>Functional Plant Biology</i> , 2018, 45, 813.	2.1	10
100	Mesophyll conductance is unaffected by expression of <i>Arabidopsis</i> <i>PIP1</i> aquaporins in the plasmalemma of <i>Nicotiana</i> . <i>Journal of Experimental Botany</i> , 2022, 73, 3625-3636.	4.8	10
101	Phenotypic variation in photosynthetic traits in wheat grown under field versus glasshouse conditions. <i>Journal of Experimental Botany</i> , 2022, 73, 3221-3237.	4.8	9
102	Internal transport of CO ₂ from the root zone to plant shoot is pH dependent. <i>Physiologia Plantarum</i> , 2019, 165, 451-463.	5.2	7
103	A consensus on the Aquaporin Gene Family in the Allotetraploid Plant, <i>Nicotiana tabacum</i> . <i>Plant Direct</i> , 2021, 5, e00321.	1.9	6
104	Effect of N supply on the carbon economy of barley when accounting for plant size. <i>Functional Plant Biology</i> , 2020, 47, 368.	2.1	6
105	Effects of elevated atmospheric CO ₂ concentrations, clipping regimen and differential day/night atmospheric warming on tissue nitrogen concentrations of a perennial pasture grass. <i>AoB PLANTS</i> , 2015, 7, plv094.	2.3	4
106	Phosphorus acquisition from soil by white lupin (<i>Lupinus albus</i> L.) and soybean (<i>Glycine max</i> L.), species with contrasting root development. , 2003, , 271-283.		2
107	Temperature responses of photosynthesis and respiration in a sub-Antarctic megaherb from Heard Island. <i>Functional Plant Biology</i> , 2015, 42, 552.	2.1	1
108	Measurement of Mesophyll Conductance in Tobacco, <i>Arabidopsis</i> and Wheat Leaves with Tunable Diode Laser Absorption Spectroscopy. <i>Advanced Topics in Science and Technology in China</i> , 2013, , 751-755.	0.1	1

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109	Carbon Dioxide Diffusion Inside C3 Leaves. , 1998, , 3463-3466.		1