Graham D Farquhar

List of Publications by Year in Descending Order

286 papers	50,229 citations	104 h-index	222 g-index
294 ext. papers	55,136 ext. citations	7.1 avg, IF	7.61 L-index

#	Paper	IF	Citations
286	Cuticular conductance of adaxial and abaxial leaf surfaces and its relation to minimum leaf surface conductance. *New Phytologist*, **2022**, 233, 156-168	9.8	4
285	Early-growth results within a Eucalyptus globulus breeding population suggest limited scope for selection focused on CO2 responsiveness. *Tree Genetics and Genomes*, **2022**, 18, 1	2.1	
284	Rubisco catalytic adaptation is mostly driven by photosynthetic conditions - Not by phylogenetic constraints. *Journal of Plant Physiology*, **2021**, 267, 153554	3.6	1
283	An improved theory for calculating leaf gas exchange more precisely accounting for small fluxes. *Nature Plants*, **2021**, 7, 317-326	11.5	7
282	The effects on isotopic composition of leaf water and transpiration of adding a gas-exchange cuvette. *Plant, Cell and Environment*, **2021**, 44, 2844-2857	8.4	1
281	Integrating the evidence for a terrestrial carbon sink caused by increasing atmospheric CO. *New Phytologist*, **2021**, 229, 2413-2445	9.8	94
280	Can hydraulic design explain patterns of leaf water isotopic enrichment in C plants?. *Plant, Cell and Environment*, **2021**, 44, 432-444	8.4	3
279	Dynamics of moisture diffusion and adsorption in plant cuticles including the role of cellulose. *Nature Communications*, **2021**, 12, 5042	17.4	1
278	Revisiting carbon isotope discrimination in C plants shows respiration rules when photosynthesis is low. *Nature Plants*, **2020**, 6, 245-258	11.5	33
277	Directional change in leaf dry matter 13C during leaf development is widespread in C3 plants. *Annals of Botany*, **2020**, 126, 981-990	4.1	7
276	Ralph Owen Slatyer 1929–2012. *Historical Records of Australian Science*, **2020**, 31, 54	0.2	0
275	Higher than expected CO fertilization inferred from leaf to global observations. *Global Change Biology*, **2020**, 26, 2390	11.4	43
274	Genetic variation for leaf carbon isotope discrimination and its association with transpiration efficiency in canola (Brassica napus). *Functional Plant Biology*, **2020**, 47, 355-367	2.7	1
273	Genetic and physiological bases for variation in water use efficiency in canola. *Food and Energy Security*, **2020**, 9, e237	4.1	3
272	Ribulose 1,5-bisphosphate carboxylase/oxygenase activates O by electron transfer. *Proceedings of the National Academy of Sciences of the United States of America*, **2020**, 117, 24234-24242	11.5	10
271	Optimization can provide the fundamental link between leaf photosynthesis, gas exchange and water relations. *Nature Plants*, **2020**, 6, 1116-1125	11.5	17
270	Stomatal conductance responses to evaporative demand conferred by rice drought-yield quantitative trait locus qDTY. *Functional Plant Biology*, **2019**, 46, 660-669	2.7	7

269	A leaf-level biochemical model simulating the introduction of C and C photosynthesis in C rice: gains, losses and metabolite fluxes. *New Phytologist*, **2019**, 223, 150-166	9.8	16
268	Critical review: incorporating the arrangement of mitochondria and chloroplasts into models of photosynthesis and carbon isotope discrimination. *Photosynthesis Research*, **2019**, 141, 5-31	3.7	23
267	Quantifying impacts of enhancing photosynthesis on crop yield. *Nature Plants*, **2019**, 5, 380-388	11.5	125
266	Estimating stomatal and biochemical limitations during photosynthetic induction. *Plant, Cell and Environment*, **2019**, 42, 3227-3240	8.4	22
265	Two-Source Method to Validate the COO-Photosynthetic Discrimination Model: Implications for Mesophyll Conductance. *Plant Physiology*, **2019**, 181, 1175-1190	6.6	10
264	Plant water-use strategy mediates stomatal effects on the light induction of photosynthesis. *New Phytologist*, **2019**, 222, 382-395	9.8	33
263	Embracing 3D Complexity in Leaf Carbon-Water Exchange. *Trends in Plant Science*, **2019**, 24, 15-24	13.1	32
262	Rainfall statistics, stationarity, and climate change. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 2305-2310	11.5	47
261	Rubisco is not really so bad. *Plant, Cell and Environment*, **2018**, 41, 705-716	8.4	53
260	Commentary: Directions for Optimization of Photosynthetic Carbon Fixation: RuBisCOR Efficiency May Not Be So Constrained After All. *Frontiers in Plant Science*, **2018**, 9, 929	6.2	9
259	Using Stable Carbon Isotopes to Study C and C Photosynthesis: Models and Calculations. *Methods in Molecular Biology*, **2018**, 1770, 155-196	1.4	16
258	Prescreening in large populations as a tool for identifying elevated CO-responsive genotypes in plants. *Functional Plant Biology*, **2018**, 46, 1-14	2.7	12
257	Plants increase CO uptake by assimilating nitrogen via the photorespiratory pathway. *Nature Plants* , **2018**, 4, 46-54	11.5	97
256	On the contributions of photorespiration and compartmentation to the contrasting intramolecular H profiles of C and C plant sugars. *Phytochemistry*, **2018**, 145, 197-206	4	10
255	Climate and soils together regulate photosynthetic carbon isotope discrimination within C3 plants worldwide. *Global Ecology and Biogeography*, **2018**, 27, 1056-1067	6.1	45
254	Simulating daily field crop canopy photosynthesis: an integrated software package. *Functional Plant Biology*, **2018**, 45, 362-377	2.7	31
253	Unsaturation of vapour pressure inside leaves of two conifer species. *Scientific Reports*, **2018**, 8, 7667	4.9	40
252	Tracking the origins of the Kok effect, 70 years after its discovery. *New Phytologist*, **2017**, 214, 506-510	9.8	21

251	Changes in the chloroplastic CO concentration explain much of the observed Kok effect: a model. *New Phytologist*, **2017**, 214, 570-584	9.8	39
250	Leaf day respiration: low CO flux but high significance for metabolism and carbon balance. *New Phytologist*, **2017**, 216, 986-1001	9.8	91
249	Does C Photosynthesis Occur in Wheat Seeds?. *Plant Physiology*, **2017**, 174, 1992-1995	6.6	12
248	Leaf water stable isotopes and water transport outside the xylem. *Plant, Cell and Environment*, **2017**, 40, 914-920	8.4	14
247	Optimal plant water economy. *Plant, Cell and Environment*, **2017**, 40, 881-896	8.4	65
246	Hydrogen isotopic differences between C and C land plant lipids: consequences of compartmentation in C photosynthetic chemistry and C photorespiration. *Plant, Cell and Environment*, **2016**, 39, 2676-2690	8.4	20
245	Leaf vein fraction influences the P□let effect and O enrichment in leaf water. *Plant, Cell and Environment*, **2016**, 39, 2414-2427	8.4	30
244	Poor Evidence for C4 Photosynthesis in the Wheat Grain. *Plant Physiology*, **2016**, 172, 1357	6.6	7
243	Three-dimensional microscale modelling of CO2 transport and light propagation in tomato leaves enlightens photosynthesis. *Plant, Cell and Environment*, **2016**, 39, 50-61	8.4	64
242	A mathematical model of pan evaporation under steady state conditions. *Journal of Hydrology*, **2016**, 540, 641-658	6	10
241	Stable isotopes in leaf water of terrestrial plants. *Plant, Cell and Environment*, **2016**, 39, 1087-102	8.4	182
240	Allocate carbon for a reason: priorities are reflected in the □□C/□□C ratios of plant lipids synthesized via three independent biosynthetic pathways. *Phytochemistry*, **2015**, 111, 14-20	4	14
239	Measurements of transpiration isotopologues and leaf water to assess enrichment models in cotton. *New Phytologist*, **2015**, 206, 637-46	9.8	43
238	"Rolled-upness": phenotyping leaf rolling in cereals using computer vision and functional data analysis approaches. *Plant Methods*, **2015**, 11, 52	5.8	17
237	On the assessment of aridity with changes in atmospheric CO2. *Water Resources Research*, **2015**, 51, 5450-5463	3.4	137
236	Modeling Canopy Photosynthesis from the Biochemistry of the C3 Chloroplast. *CSSA Special Publication - Crop Science Society of America*, **2015**, 1-15		9
235	Photosynthesis and Carbon Assimilation. *Assa, Cssa and Sssa*, **2015**, 187-210	0.3	3
234	Growth responses of the mangrove Avicennia marina to salinity: development and function of shoot hydraulic systems require saline conditions. *Annals of Botany*, **2015**, 115, 397-407	4.1	69

233	Global variability in leaf respiration in relation to climate, plant functional types and leaf traits. *New Phytologist*, **2015**, 206, 614-36	9.8	244
232	Drought response of mesophyll conductance in forest understory species--impacts on water-use efficiency and interactions with leaf water movement. *Physiologia Plantarum*, **2014**, 152, 98-114	4.6	35
231	Determinants of maximum tree height in Eucalyptus species along a rainfall gradient in Victoria, Australia. *Ecology*, **2014**, 95, 2991-3007	4.6	71
230	Rhizobium-induced elevation in xylem cytokinin delivery in pigeonpea induces changes in shoot development and leaf physiology. *Functional Plant Biology*, **2014**, 41, 1323-1335	2.7	19
229	Variation in mesophyll conductance among Australian wheat genotypes. *Functional Plant Biology*, **2014**, 41, 568-580	2.7	41
228	Advances in measurements and models of photosynthetic carbon isotope discrimination in C3 plants. *Plant, Cell and Environment*, **2014**, 37, 1494-8	8.4	40
227	Photosynthesis-nitrogen relationships in tropical forest tree species as affected by soil phosphorus availability: a controlled environment study. *Functional Plant Biology*, **2014**, 41, 820-832	2.7	37
226	Contrasting photosynthetic characteristics of forest vs. savanna species (Far North Queensland, Australia). *Biogeosciences*, **2014**, 11, 7331-7347	4.6	14
225	A general framework for understanding the response of the water cycle to global warming over land and ocean. *Hydrology and Earth System Sciences*, **2014**, 18, 1575-1589	5.5	147
224	Turnover time of the non-structural carbohydrate pool influences δ18O of leaf cellulose. *Plant, Cell and Environment*, **2014**, 37, 2500-7	8.4	37
223	Variation in the carbon and oxygen isotope composition of plant biomass and its relationship to water-use efficiency at the leaf- and ecosystem-scales in a northern Great Plains grassland. *Plant, Cell and Environment*, **2014**, 37, 425-38	8.4	67
222	Focus on Water. *Plant Physiology*, **2014**, 164, 1553-1555	6.6	7
221	Diffusional conductances to CO2 as a target for increasing photosynthesis and photosynthetic water-use efficiency. *Photosynthesis Research*, **2013**, 117, 45-59	3.7	218
220	The impact of bushfires on water yield from south-east Australian ash forests. *Water Resources Research*, **2013**, 49, 4493-4505	5.4	21
219	Environmental and physiological determinants of carbon isotope discrimination in terrestrial plants. *New Phytologist*, **2013**, 200, 950-65	9.8	354
218	D2O solvent isotope effects suggest uniform energy barriers in ribulose-1,5-bisphosphate carboxylase/oxygenase catalysis. *Biochemistry*, **2013**, 52, 869-77	3.2	21
217	The energy balance of a US Class A evaporation pan. *Agricultural and Forest Meteorology*, **2013**, 182-183, 314-331	5.8	25
216	What does optimization theory actually predict about crown profiles of photosynthetic capacity when models incorporate greater realism?. *Plant, Cell and Environment*, **2013**, 36, 1547-63	8.4	73

215	Impact of CO2 fertilization on maximum foliage cover across the globe's warm, arid environments. *Geophysical Research Letters*, **2013**, 40, 3031-3035	4.9	344
214	Sensitivity of plants to changing atmospheric CO2 concentration: from the geological past to the next century. *New Phytologist*, **2013**, 197, 1077-1094	9.8	256
213	The oxygen isotope enrichment of leaf-exported assimilates--does it always reflect lamina leaf water enrichment?. *New Phytologist*, **2013**, 200, 144-157	9.8	68
212	Transpiration rate relates to within- and across-species variations in effective path length in a leaf water model of oxygen isotope enrichment. *Plant, Cell and Environment*, **2013**, 36, 1338-51	8.4	74
211	Photosynthetically relevant foliar traits correlating better on a mass vs an area basis: of ecophysiological relevance or just a case of mathematical imperatives and statistical quicksand?. *New Phytologist*, **2013**, 199, 311-321	9.8	100
210	Genomic regions for canopy temperature and their genetic association with stomatal conductance and grain yield in wheat. *Functional Plant Biology*, **2012**, 40, 14-33	2.7	125
209	Changes in the variability of global land precipitation. *Geophysical Research Letters*, **2012**, 39, n/a-n/a	4.9	69
208	The aerodynamics of pan evaporation. *Agricultural and Forest Meteorology*, **2012**, 152, 31-43	5.8	20
207	A controlled test of the dual-isotope approach for the interpretation of stable carbon and oxygen isotope ratio variation in tree rings. *Tree Physiology*, **2012**, 32, 490-503	4.2	95
206	Ternary effects on the gas exchange of isotopologues of carbon dioxide. *Plant, Cell and Environment*, **2012**, 35, 1221-31	8.4	122
205	Water cycle varies over land and sea. *Science*, **2012**, 336, 1230-1	33.3	10
204	A simple framework for relating variations in runoff to variations in climatic conditions and catchment properties. *Water Resources Research*, **2011**, 47,	5.4	278
203	Hydroclimatic projections for the Murray-Darling Basin based on an ensemble derived from Intergovernmental Panel on Climate Change AR4 climate models. *Water Resources Research*, **2011**, 47,	5.4	77
202	Temperature effect on leaf water deuterium enrichment and isotopic fractionation during leaf lipid biosynthesis: results from controlled growth of C3 and C4 land plants. *Phytochemistry*, **2011**, 72, 207-13	4	54
201	Variability in mesophyll conductance between barley genotypes, and effects on transpiration efficiency and carbon isotope discrimination. *Plant, Cell and Environment*, **2010**, 33, 1176-85	8.4	107
200	Partitioning the variance between space and time. *Geophysical Research Letters*, **2010**, 37, n/a-n/a	4.9	25
199	Promotion of shoot development and tuberisation in potato by expression of a chimaeric cytokinin synthesis gene at normal and elevated CO2 levels. *Functional Plant Biology*, **2010**, 37, 43	2.7	15
198	Effects of root restriction on growth and associated cytokinin levels in cotton (Gossypium hirsutum). *Functional Plant Biology*, **2010**, 37, 974	2.7	18

197	Zea mays rhizosphere respiration, but not soil organic matter decomposition was stable across a temperature gradient. *Soil Biology and Biochemistry*, **2010**, 42, 2030-2033	7.5	10
196	Biosynthetic origin of the saw-toothed profile in delta(13)C and delta(2)H of n-alkanes and systematic isotopic differences between n-, iso- and anteiso-alkanes in leaf waxes of land plants. *Phytochemistry*, **2010**, 71, 388-403	4	54
195	The use of natural abundance stable isotopic ratios to indicate the presence of oxygen-containing chemical linkages between cellulose and lignin in plant cell walls. *Phytochemistry*, **2010**, 71, 982-93	4	38
194	Pan Evaporation Trends and the Terrestrial Water Balance. I. Principles and Observations. *Geography Compass*, **2009**, 3, 746-760	2.4	111
193	Pan Evaporation Trends and the Terrestrial Water Balance. II. Energy Balance and Interpretation. *Geography Compass*, **2009**, 3, 761-780	2.4	135
192	Nitrogen in cell walls of sclerophyllous leaves accounts for little of the variation in photosynthetic nitrogen-use efficiency. *Plant, Cell and Environment*, **2009**, 32, 259-70	8.4	82
191	On the metabolic origin of the carbon isotope composition of CO2 evolved from darkened light-acclimated leaves in Ricinus communis. *New Phytologist*, **2009**, 181, 374-386	9.8	112
190	Influence of clouds and diffuse radiation on ecosystem-atmosphere CO2 and CO18O exchanges. *Journal of Geophysical Research*, **2009**, 114,		59
189	Why are non-photosynthetic tissues generally C enriched compared with leaves in C plants? Review and synthesis of current hypotheses. *Functional Plant Biology*, **2009**, 36, 199-213	2.7	304
188	Modeling the Temperature Dependence of C3 Photosynthesis. *Advances in Photosynthesis and Respiration*, **2009**, 231-246	1.7	27
187	Biochemical Model of C3 Photosynthesis. *Advances in Photosynthesis and Respiration*, **2009**, 209-230	1.7	51
186	Experimental evidence for diel variations of the carbon isotope composition in leaf, stem and phloem sap organic matter in Ricinus communis. *Plant, Cell and Environment*, **2008**, 31, 941-53	8.4	118
185	Next generation of elevated [CO2] experiments with crops: a critical investment for feeding the future world. *Plant, Cell and Environment*, **2008**, 31, 1317-24	8.4	145
184	Revisiting the parameterization of potential evaporation as a driver of long-term water balance trends. *Geophysical Research Letters*, **2008**, 35, n/a-n/a	4.9	104
183	Effects of rising temperatures and [CO2] on the physiology of tropical forest trees. *Philosophical Transactions of the Royal Society B: Biological Sciences*, **2008**, 363, 1811-7	5.8	336
182	Environmental effects on oxygen isotope enrichment of leaf water in cotton leaves. *Plant Physiology*, **2008**, 146, 729-36	6.6	48
181	Biosynthetic and environmental effects on the stable carbon isotopic compositions of anteiso- (3-methyl) and iso- (2-methyl) alkanes in tobacco leaves. *Phytochemistry*, **2008**, 69, 2807-14	4	43
180	Quantitative trait loci for carbon isotope discrimination are repeatable across environments and wheat mapping populations. *Theoretical and Applied Genetics*, **2008**, 118, 123-37	6	140

179	An innovative molybdenum column liner for oxygen and hydrogen stable isotope analysis by pyrolysis. *Rapid Communications in Mass Spectrometry*, **2008**, 22, 1117-26	2.2	12
178	On the effect of heavy water (DO) on carbon isotope fractionation in photosynthesis. *Functional Plant Biology*, **2008**, 35, 201-212	2.7	4
177	Contributions of woody and herbaceous vegetation to tropical savanna ecosystem productivity: a quasi-global estimate. *Tree Physiology*, **2008**, 28, 451-68	4.2	115
176	Mean annual GPP of Europe derived from its water balance. *Geophysical Research Letters*, **2007**, 34,	4.9	85
175	Have Australian rainfall and cloudiness increased due to the remote effects of Asian anthropogenic aerosols?. *Journal of Geophysical Research*, **2007**, 112,		111
174	Maximum entropy production, cloud feedback, and climate change. *Geophysical Research Letters*, **2007**, 34,	4.9	22
173	On the attribution of changing pan evaporation. *Geophysical Research Letters*, **2007**, 34,	4.9	428
172	Macromolecular crowding and its influence on possible reaction mechanisms in photosynthetic electron flow. *Biochimica Et Biophysica Acta - Bioenergetics*, **2007**, 1767, 353-61	4.6	2
171	Tropical rainforest canopies and climate change. *Austral Ecology*, **2007**, 32, 105-112	1.5	12
170	Development of a stable isotope index to assess decadal-scale vegetation change and application to woodlands of the Burdekin catchment, Australia. *Global Change Biology*, **2007**, 13, 1455-1468	11.4	26
169	A new measurement technique reveals temporal variation in delta18O of leaf-respired CO2. *Plant, Cell and Environment*, **2007**, 30, 456-68	8.4	34
168	Modelling advection and diffusion of water isotopologues in leaves. *Plant, Cell and Environment*, **2007**, 30, 892-909	8.4	105
167	Fitting photosynthetic carbon dioxide response curves for C(3) leaves. *Plant, Cell and Environment*, **2007**, 30, 1035-40	8.4	883
166	Oxygen isotope enrichment of organic matter in Ricinus communis during the diel course and as affected by assimilate transport. *New Phytologist*, **2007**, 174, 600-613	9.8	54
165	On the O/O isotope effect associated with photosynthetic O production. *Functional Plant Biology*, **2007**, 34, 1049-1052	2.7	7
164	Differences in carbon isotope discrimination of three variants of D-ribulose-1,5-bisphosphate carboxylase/oxygenase reflect differences in their catalytic mechanisms. *Journal of Biological Chemistry*, **2007**, 282, 36068-76	5.4	69
163	The mechanical diversity of stomata and its significance in gas-exchange control. *Plant Physiology*, **2007**, 143, 78-87	6.6	351
162	Heavy water fractionation during transpiration. *Plant Physiology*, **2007**, 143, 11-8	6.6	318

161	Overproduction of abscisic acid in tomato increases transpiration efficiency and root hydraulic conductivity and influences leaf expansion. *Plant Physiology*, **2007**, 143, 1905-17	6.6	256
160	□ of organic matter transported from the leaves to the roots in Eucalyptus delegatensis: short-term variations and relation to respired CO. *Functional Plant Biology*, **2007**, 34, 692-706	2.7	106
159	Using Stomatal Aperture-Related Traits to Select for High Yield Potential in Bread Wheat **2007**, 617-624		11
158	A comment on the quantitative significance of aerobic methane release by plants. *Functional Plant Biology*, **2006**, 33, 521-530	2.7	93
157	Determining RuBisCO activation kinetics and other rate and equilibrium constants by simultaneous multiple non-linear regression of a kinetic model. *Journal of Experimental Botany*, **2006**, 57, 3883-900	7	37
156	Despite slow catalysis and confused substrate specificity, all ribulose bisphosphate carboxylases may be nearly perfectly optimized. *Proceedings of the National Academy of Sciences of the United States of America*, **2006**, 103, 7246-51	11.5	533
155	A simple pan-evaporation model for analysis of climate simulations: Evaluation over Australia. *Geophysical Research Letters*, **2006**, 33,	4.9	96
154	Viewpoint: Isotopic fractionation by plant nitrate reductase, twenty years later. *Functional Plant Biology*, **2006**, 33, 531-537	2.7	37
153	Hydraulically based stomatal oscillations and stomatal patchiness in Gossypium hirsutum. *Functional Plant Biology*, **2006**, 33, 1103-1113	2.7	35
152	Measurement of (carbon) kinetic isotope effect by Rayleigh fractionation using membrane inlet mass spectrometry for CO-consuming reactions. *Functional Plant Biology*, **2006**, 33, 1115-1128	2.7	32
151	Dynamics of stomatal water relations following leaf excision. *Plant, Cell and Environment*, **2006**, 29, 981-92	3.4	34
150	Inheritance of Carbon Isotope Discrimination in Bread Wheat (Triticum Aestivum L.). *Euphytica*, **2006**, 150, 97-106	2.1	55
149	Nocturnal stomatal conductance and implications for modelling □ of leaf-respired CO in temperate tree species. *Functional Plant Biology*, **2006**, 32, 1107-1121	2.7	59
148	The influence of protein-protein interactions on the organization of proteins within thylakoid membranes. *Biophysical Journal*, **2005**, 88, 2650-60	2.9	18
147	Co-Evolution of Climate, Soil and Vegetation **2005**,		12
146	Viewpoint: Carbon isotope effect predictions for enzymes involved in the primary carbon metabolism of plant leaves. *Functional Plant Biology*, **2005**, 32, 277-291	2.7	71
145	On the isotopic composition of leaf water in the non-steady state. *Functional Plant Biology*, **2005**, 32, 293-303	2.7	235
144	Variation in the degree of coupling between delta13C of phloem sap and ecosystem respiration in two mature Nothofagus forests. *New Phytologist*, **2005**, 166, 497-512	9.8	65

143	The ERECTA gene regulates plant transpiration efficiency in Arabidopsis. *Nature*, **2005**, 436, 866-70	50.4	437
142	Changes in New Zealand pan evaporation since the 1970s. *International Journal of Climatology*, **2005**, 25, 2031-2039	3.5	116
141	Environmental and physiological controls over oxygen and carbon isotope composition of Tasmanian blue gum, Eucalyptus globulus. *Tree Physiology*, **2005**, 25, 129-46	4.2	177
140	Measurement and interpretation of the oxygen isotope composition of carbon dioxide respired by leaves in the dark. *Plant Physiology*, **2004**, 136, 3350-63	6.6	61
139	Theoretical considerations about carbon isotope distribution in glucose of C plants. *Functional Plant Biology*, **2004**, 31, 857-877	2.7	126
138	A new analytical model for whole-leaf potential electron transport rate. *Plant, Cell and Environment* , **2004**, 27, 1487-1502	8.4	25
137	Expressing leaf water and cellulose oxygen isotope ratios as enrichment above source water reveals evidence of a Péclet effect. *Oecologia*, **2004**, 138, 426-35	2.9	223
136	Oxygen and carbon isotope composition of parasitic plants and their hosts in southwestern Australia. *Oecologia*, **2004**, 139, 199-213	2.9	45
135	Do pathways of water movement and leaf anatomical dimensions allow development of gradients in H218O between veins and the sites of evaporation within leaves?. *Plant, Cell and Environment*, **2004**, 27, 107-121	8.4	72
134	Changes in Australian pan evaporation from 1970 to 2002. *International Journal of Climatology*, **2004**, 24, 1077-1090	3.5	256
133	Breeding for high water-use efficiency. *Journal of Experimental Botany*, **2004**, 55, 2447-60	7	761
132	A simple new equation for the reversible temperature dependence of photosynthetic electron transport: a study on soybean leaf. *Functional Plant Biology*, **2004**, 31, 275-283	2.7	134
131	Oxygen Isotope Analysis of Plant Water Without Extraction Procedure **2004**, 473-481		2
130	Changes in Australian pan evaporation from 1970 to 2002. *International Journal of Climatology*, **2004**, 24, 1077-1090	3.5	141
129	Water relations link carbon and oxygen isotope discrimination to phloem sap sugar concentration in Eucalyptus globulus. *Plant Physiology*, **2003**, 131, 1544-54	6.6	99
128	Atmospheric science. Pinatubo, diffuse light, and the carbon cycle. *Science*, **2003**, 299, 1997-8	33.3	161
127	Oxygen isotope composition of phloem sap in relation to leaf water in Ricinus communis. *Functional Plant Biology*, **2003**, 30, 1059-1070	2.7	81
126	On the progressive enrichment of the oxygen isotopic composition of water along a leaf. *Plant, Cell and Environment*, **2003**, 26, 1579-1597	8.4	70

125	On the progressive enrichment of the oxygen isotopic composition of water along a leaf. *Plant, Cell and Environment*, **2003**, 26, 801-819	8.4	30
124	Evaluation of models of leaf water 18O enrichment using measurements of spatial patterns of vein xylem water, leaf water and dry matter in maize leaves. *Plant, Cell and Environment*, **2003**, 26, 1479-1495	8.4	58
123	A hydromechanical and biochemical model of stomatal conductance. *Plant, Cell and Environment*, **2003**, 26, 1767-1785	8.4	233
122	Gene action for leaf conductance in three wheat crosses. *Australian Journal of Agricultural Research*, **2003**, 54, 381		36
121	Dependence of plastoquinol diffusion on the shape, size, and density of integral thylakoid proteins. *Biochimica Et Biophysica Acta - Bioenergetics*, **2003**, 1607, 97-109	4.6	84
120	On the progressive enrichment of the oxygen isotopic composition of water along a leaf. *Plant, Cell and Environment*, **2003**, 26, 801-819	8.4	25
119	Selection for Reduced Carbon Isotope Discrimination Increases Aerial Biomass and Grain Yield of Rainfed Bread Wheat. *Crop Science*, **2002**, 42, 739-745	2.4	305
118	Soil and canopy CO2, 13CO2, H2O and sensible heat flux partitions in a forest canopy inferred from concentration measurements. *Tellus, Series B: Chemical and Physical Meteorology*, **2002**, 54, 655-676	3.3	4
117	Soil and canopy CO2, 13CO2, H2O and sensible heat flux partitions in a forest canopy inferred from concentration measurements. *Tellus, Series B: Chemical and Physical Meteorology*, **2002**, 54, 655-676	3.3	21
116	Seasonal variation in δ13C and δ18O of cellulose from growth rings of Pinus radiata. *Plant, Cell and Environment*, **2002**, 25, 1483-1499	8.4	209
115	Diurnal variation in the stable isotope composition of water and dry matter in fruiting Lupinus angustifolius under field conditions. *Plant, Cell and Environment*, **2002**, 25, 893-907	8.4	137
114	Improving Intrinsic Water-Use Efficiency and Crop Yield. *Crop Science*, **2002**, 42, 122-131	2.4	257
113	(18)O spatial patterns of vein xylem water, leaf water, and dry matter in cotton leaves. *Plant Physiology*, **2002**, 130, 1008-21	6.6	81
112	The Cause of Decreased Pan Evaporation over the Past 50 Years. *Science*, **2002**, 298, 1410-1411	33.3	521
111	Optimal stomatal control in relation to leaf area and nitrogen content. *Silva Fennica*, **2002**, 36,	1.9	113
110	The mathematics of linked optimisation for water and nitrogen use in a canopy. *Silva Fennica*, **2002**, 36,	1.9	65
109	Improving Intrinsic Water-Use Efficiency and Crop Yield. *Crop Science*, **2002**, 42, 122	2.4	239
108	Selection for Reduced Carbon Isotope Discrimination Increases Aerial Biomass and Grain Yield of Rainfed Bread Wheat. *Crop Science*, **2002**, 42, 739	2.4	198

107	Improving Intrinsic Water-Use Efficiency and Crop Yield. *Crop Science*, **2002**, 42, 122-131	2.4	373
106	On the direct effect of clouds and atmospheric particles on the productivity and structure of vegetation. *Oecologia*, **2001**, 129, 21-30	2.9	369
105	Carbon isotope discrimination by a sequence of Eucalyptus species along a subcontinental rainfall gradient in Australia. *Functional Ecology*, **2001**, 15, 222-232	5.6	103
104	The effect of exogenous abscisic acid on stomatal development, stomatal mechanics, and leaf gas exchange in Tradescantia virginiana. *Plant Physiology*, **2001**, 125, 935-42	6.6	206
103	Models of photosynthesis. *Plant Physiology*, **2001**, 125, 42-5	6.6	209
102	Canopy carbon and oxygen isotope composition of 9-year-old hoop pine families in relation to seedling carbon isotope composition, growth, field growth performance, and canopy nitrogen concentration. *Canadian Journal of Forest Research*, **2001**, 31, 673-681	1.9	17
101	Correlations between oxygen isotope ratios of wood constituents of Quercus and Pinus samples from around the world. *Functional Plant Biology*, **2001**, 28, 335	2.7	47
100	Canopy carbon and oxygen isotope composition of 9-year-old hoop pine families in relation to seedling carbon isotope composition, growth, field growth performance, and canopy nitrogen concentration. *Canadian Journal of Forest Research*, **2001**, 31, 673-681	1.9	21
99	Eucalypts forming a canopy functional type in dry sclerophyll forests respond differentially to environment. *Australian Journal of Botany*, **2000**, 48, 759	1.2	39
98	Do slow-growing species and nutrient-stressed plants consistently respond less to elevated CO2? A clarification of some issues raised by Poorter 1998). *Global Change Biology*, **2000**, 6, 871-876	11.4	16
97	Relative humidity- and ABA-induced variation in carbon and oxygen isotope ratios of cotton leaves. *Plant, Cell and Environment*, **2000**, 23, 473-485	8.4	278
96	Effects of elevated [CO(2)] and nitrogen nutrition on cytokinins in the xylem sap and leaves of cotton. *Plant Physiology*, **2000**, 124, 767-80	6.6	100
95	Carbon isotope discrimination and oxygen isotope composition in clones of the F(1) hybrid between slash pine and Caribbean pine in relation to tree growth, water-use efficiency and foliar nutrient concentration. *Tree Physiology*, **2000**, 20, 1209-1217	4.2	76
94	Variation in branchlet delta13C in relation to branchlet nitrogen concentration and growth in 8-year-old hoop pine families (Araucaria cunninghamii) in subtropical Australia. *Tree Physiology*, **2000**, 20, 1049-55	4.2	36
93	Oxygen isotope ratio of leaf and grain material correlates with stomatal conductance and grain yield in irrigated wheat. *Functional Plant Biology*, **2000**, 27, 625	2.7	50
92	Variation in the oxygen isotope ratio of phloem sap sucrose from castor bean. Evidence in support of the Pelet effect. *Plant Physiology*, **2000**, 123, 671-80	6.6	129
91	Photosynthetic Fractionation of Carbon Isotopes. *Advances in Photosynthesis and Respiration*, **2000**, 399-434	17	169
90	Effects of water status and soil fertility on the C-isotope signature in Pinus radiata. *Tree Physiology*, **1999**, 19, 551-562	4.2	123

89	A theoretical approach to linking the composition and morphology with the function of leaves. *Functional Ecology*, **1999**, 13, 683-695	5.6	70
88	A relationship between humidity response, growth form and photosynthetic operating point in C3 plants. *Plant, Cell and Environment*, **1999**, 22, 1337-1349	8.4	157
87	Carbon-water balance and patchy stomatal conductance. *Oecologia*, **1999**, 118, 132-143	2.9	33
86	Calculation of the oxygen isotope discrimination factor for studying plant respiration. *Functional Plant Biology*, **1999**, 26, 773	2.7	12
85	A study of stomatal mechanics using the cell pressure probe. *Plant, Cell and Environment*, **1998**, 21, 94-100	8.4	102
84	Analysis of respiratory chain regulation in roots of soybean seedlings. *Plant Physiology*, **1998**, 117, 1083-93	6.6	125
83	Haying-off, the negative grain yield response of dryland wheat to nitrogen fertiliser II.Carbohydrate and protein dynamics. *Australian Journal of Agricultural Research*, **1998**, 49, 1083		155
82	Haying-off, the negative grain yield response of dryland wheat to nitrogen fertiliser III. The influence of water deficit and heat shock. *Australian Journal of Agricultural Research*, **1998**, 49, 1095		56
81	Reduction of Ribulose-1,5-Bisphosphate Carboxylase/Oxygenase by Antisense RNA in the C4 Plant Flaveria bidentis Leads to Reduced Assimilation Rates and Increased Carbon Isotope Discrimination. *Plant Physiology*, **1997**, 113, 469-477	6.6	81
80	CO2 and Water Vapor Exchange across Leaf Cuticle (Epidermis) at Various Water Potentials. *Plant Physiology*, **1997**, 114, 185-191	6.6	229
79	CLIMATE CHANGE: Carbon Dioxide and Vegetation. *Science*, **1997**, 278, 1411-1411	33.3	109
78	On the extent of genetic variation for transpiration efficiency in sorghum. *Australian Journal of Agricultural Research*, **1997**, 48, 649		56
77	Simple scaling of photosynthesis from leaves to canopies without the errors of big-leaf models. *Plant, Cell and Environment*, **1997**, 20, 537-557	8.4	880
76	Qualitative effects of patchy stomatal conductance distribution features on gas-exchange calculations. *Plant, Cell and Environment*, **1997**, 20, 867-880	8.4	80
75	The apparent feedforward response of stomata to air vapour pressure deficit: information revealed by different experimental procedures with two rainforest trees. *Plant, Cell and Environment*, **1997**, 20, 142-145	8.4	108
74	Stomatal responses to changes in vapour pressure difference between leaf and air. *Plant, Cell and Environment*, **1997**, 20, 1213-1216	8.4	51
73	A rapid on-line technique for determination of oxygen isotope composition of nitrogen-containing organic matter and water. *Rapid Communications in Mass Spectrometry*, **1997**, 11, 1554-1560	2.2	129
72	Carbon Isotope Discrimination during C4 Photosynthesis: Insights from Transgenic Plants. *Functional Plant Biology*, **1997**, 24, 487	2.7	21

71	A rapid on-line technique for determination of oxygen isotope composition of nitrogen-containing organic matter and water **1997**, 11, 1554		7
70	Terrestrial carbon-storage from the last glacial maximum to the present. *Chemosphere*, **1996**, 33, 1675-1685	1.4	20
69	The CO 2 Dependence of Photosynthesis, Plant Growth Responses to Elevated Atmospheric CO 2 Concentrations and Their Interaction with Soil Nutrient Status. I. General Principles and Forest Ecosystems. *Functional Ecology*, **1996**, 10, 4	5.6	240
68	Seed and Seedling Characteristics Contributing to Variation in Early Vigor among Temperate Cereals. *Crop Science*, **1996**, 36, 1257-1266	2.4	116
67	Guard cell pressure/aperture characteristics measured with the pressure probe. *Plant, Cell and Environment*, **1995**, 18, 795-800	8.4	54
66	On the relationship between leaf anatomy and CO2 diffusion through the mesophyll of hypostomatous leaves. *Plant, Cell and Environment*, **1995**, 18, 149-157	8.4	270
65	Water-Use Efficiency and Carbon Isotope Discrimination in Peanut under Water Deficit Conditions. *Crop Science*, **1994**, 34, 92-97	2.4	211
64	C discrimination during CO assimilation by the terrestrial biosphere. *Oecologia*, **1994**, 99, 201-215	2.9	463
63	Terrestrial carbon storage at the LGM. *Nature*, **1994**, 371, 566-566	50.4	83
62	Vegetation effects on the isotope composition of oxygen in atmospheric CO2. *Nature*, **1993**, 363, 439-443	50.4	343
61	Carbon and Oxygen Isotope Effects in the Exchange of Carbon Dioxide between Terrestrial Plants and the Atmosphere **1993**, 47-70		381
60	Crop growth, water-use efficiency and carbon isotope discrimination in groundnut (Arachis hypogaea L.) genotypes under end-of season drought conditions*. *Annals of Applied Biology*, **1993**, 122, 357-367	2.6	39
59	Genetic and Environmental Variation in Transpiration Efficiency and Its Correlation with Carbon Isotope Discrimination and Specific Leaf Area in Peanut **1993**, 247-267		26
58	Analysis of Restriction Fragment Length Polymorphisms Associated with Variation of Carbon Isotope Discrimination among Ecotypes of Arabidopsis thaliana **1993**, 371-386		15
57	Genotypic and Drought-Induced Differences in Carbon Isotope Discrimination and Gas Exchange of Cowpea. *Crop Science*, **1992**, 32, 1-6	2.4	44
56	Low conductances for CO2 diffusion from stomata to the sites of carboxylation in leaves of woody species. *Plant, Cell and Environment*, **1992**, 15, 873-899	8.4	252
55	Carbon isotope discrimination by plants follows latitudinal and altitudinal trends. *Oecologia*, **1991**, 88, 30-40	2.9	457
54	Water-Use Efficiency and Carbon Isotope Discrimination in Wheat. *Crop Science*, **1991**, 31, 1282-1288	2.4	161

53	The relationship between the Rubisco reaction mechanism and models of photosynthesis*. *Plant, Cell and Environment*, **1990**, 13, 219-225	8.4	81
52	The influence of N metabolism and organic acid synthesis on the natural abundance of isotopes of carbon in plants. *New Phytologist*, **1990**, 116, 505-529	9.8	158
51	Carbon isotope discrimination varies genetically in c(4) species. *Plant Physiology*, **1990**, 92, 534-7	6.6	39
50	The Greater 13C Natural Abundance in Nitrate-Grown than in Ammonium-Grown Ricinus Communis is Mainly a Function of the Lower Ratio of CO2-Transport Limitation to Biochemical Limitation of Photosynthesis in Nitrate-Grown Plants, with their Higher Organic Anion Content as a Less Significant Factor **1990**, 121-123		
49	Control analysis of photosynthetic CO2 fixation. *Photosynthesis Research*, **1990**, 24, 151-65	3.7	5
48	Short-term changes in leaf carbon isotope discrimination in salt- and water-stressed c(4) grasses. *Plant Physiology*, **1989**, 90, 162-6	6.6	83
47	Foliar stage in wheat correlates better to photothermal time than to thermal time. *Plant, Cell and Environment*, **1989**, 12, 235-247	8.4	58
46	Carbon Isotope Fractionation and Plant Water-Use Efficiency. *Ecological Studies*, **1989**, 21-40	1.1	320
45	Carbon Isotope Discrimination and Photosynthesis. *Annual Review of Plant Biology*, **1989**, 40, 503-537		4637
44	A global survey of carbon isotope discrimination in plants from high altitude. *Oecologia*, **1988**, 74, 623-632	3.9	405
43	Temperature-dependent feedback inhibition of photosynthesis in peanut. *Planta*, **1988**, 175, 348-54	4.7	63
42	Correlation between the Carbon Isotope Discrimination in Leaf Starch and Sugars of C(3) Plants and the Ratio of Intercellular and Atmospheric Partial Pressures of Carbon Dioxide. *Plant Physiology*, **1988**, 88, 1418-24	6.6	248
41	Effects of soil strength on the relation of water-use efficiency and growth to carbon isotope discrimination in wheat seedlings. *Plant Physiology*, **1988**, 86, 32-8	6.6	80
40	Gradients of Intercellular CO(2) Levels Across the Leaf Mesophyll. *Plant Physiology*, **1988**, 86, 1032-7	6.6	72
39	Investigation of the CO(2) Dependence of Quantum Yield and Respiration in Eucalyptus pauciflora. *Plant Physiology*, **1987**, 83, 1032-6	6.6	128
38	Carbon Isotope Discrimination is Positively Correlated with Grain Yield and Dry Matter Production in Field-Grown Wheat1. *Crop Science*, **1987**, 27, 996-1001	2.4	311
37	Genetic Variation in the Relationship between Photosynthetic CO2 Assimilation Rate and Stomatal Conductance to Water Loss **1987**, 209-212		23
36	Mistletoes: a hypothesis concerning morphological and chemical avoidance of herbivory. *Oecologia*, **1986**, 70, 234-237	2.9	51

35	Carbon fixation in eucalypts in the field : Analysis of diurnal variations in photosynthetic capacity. *Oecologia*, **1986**, 70, 273-282	2.9	48
34	Effect of temperature on the CO2/O 2 specificity of ribulose-1,5-bisphosphate carboxylase/oxygenase and the rate of respiration in the light : Estimates from gas-exchange measurements on spinach. *Planta*, **1985**, 165, 397-406	4.7	834
33	Xylem-tapping mistletoes: water or nutrient parasites?. *Science*, **1985**, 227, 1479-81	33.3	185
32	Leaf Conductance in Relation to Rate of CO(2) Assimilation: II. Effects of Short-Term Exposures to Different Photon Flux Densities. *Plant Physiology*, **1985**, 78, 826-9	6.6	83
31	Leaf Conductance in Relation to Rate of CO(2) Assimilation: III. Influences of Water Stress and Photoinhibition. *Plant Physiology*, **1985**, 78, 830-4	6.6	133
30	Leaf Conductance in Relation to Rate of CO(2) Assimilation: I. Influence of Nitrogen Nutrition, Phosphorus Nutrition, Photon Flux Density, and Ambient Partial Pressure of CO(2) during Ontogeny. *Plant Physiology*, **1985**, 78, 821-5	6.6	265
29	Effects of partial defoliation, changes of irradiance during growth, short-term water stress and growth at enhanced p(CO2) on the photosynthetic capacity of leaves of Phaseolus vulgaris L. *Planta* , **1984**, 160, 320-9	4.7	254
28	Photosynthetic and Stomatal Responses of Two Mangrove Species, Aegiceras corniculatum and Avicennia marina, to Long Term Salinity and Humidity Conditions. *Plant Physiology*, **1984**, 74, 1-6	6.6	265
27	Photosynthetic and Stomatal Responses of the Grey Mangrove, Avicennia marina, to Transient Salinity Conditions. *Plant Physiology*, **1984**, 74, 7-11	6.6	127
26	Gas Exchange, Stomatal Behavior, and deltaC Values of the flacca Tomato Mutant in Relation to Abscisic Acid. *Plant Physiology*, **1983**, 72, 245-50	6.6	80
25	Gaseous nitrogen losses from plants **1983**, 159-180		43
24	A Direct Confirmation of the Standard Method of Estimating Intercellular Partial Pressure of CO(2). *Plant Physiology*, **1982**, 69, 657-9	6.6	88
23	Stomatal Conductance and Photosynthesis. *Annual Review of Plant Physiology*, **1982**, 33, 317-345		2714
22	Modelling of Photosynthetic Response to Environmental Conditions **1982**, 549-587		350
21	Effect of salinity and humidity on □ value of halophytes-Evidence for diffusional isotope fractionation determined by the ratio of intercellular/atmospheric partial pressure of CO under different environmental conditions. *Oecologia*, **1982**, 52, 121-124	2.9	233
20	An explanation of 13C/12C variations in tree rings. *Nature*, **1982**, 297, 28-31	50.4	466
19	Interactions in the Atmosphere of the Biogeochemical Cycles of Carbon, Nitrogen and Sulfur **1982**, 1-9		3
18	Effects of temperature, oxygen concentration, leaf age and seasonal variations on the CO2 compensation point of Lolium perenne L. : Comparison with a mathematical model including non-photorespiratory CO2 production in the light. *Planta*, **1981**, 152, 497-504	4.7	42

17	Some relationships between the biochemistry of photosynthesis and the gas exchange of leaves. *Planta*, **1981**, 153, 376-87	4.7	3732
16	A biochemical model of photosynthetic CO2 assimilation in leaves of C 3 species. *Planta*, **1980**, 149, 78-90	4.7	6046
15	On the Gaseous Exchange of Ammonia between Leaves and the Environment: Determination of the Ammonia Compensation Point. *Plant Physiology*, **1980**, 66, 710-4	6.6	410
14	Stomatal conductance correlates with photosynthetic capacity. *Nature*, **1979**, 282, 424-426	50.4	1079
13	Models describing the kinetics of ribulose biphosphate carboxylase-oxygenase. *Archives of Biochemistry and Biophysics*, **1979**, 193, 456-68	4.1	119
12	Ammonia volatilization from senescing leaves of maize. *Science*, **1979**, 203, 1257-8	33.3	82
11	Relationship between stomatal conductance and light intensity in leaves of Zea mays L., derived from experiments using the mesophyll as shade. *Planta*, **1978**, 139, 73-7	4.7	32
10	Leaf Conductance in Relation to Assimilation in Eucalyptus pauciflora Sieb. ex Spreng: Influence of Irradiance and Partial Pressure of Carbon Dioxide. *Plant Physiology*, **1978**, 62, 670-4	6.6	172
9	Gain of the feedback loop involving carbon dioxide and stomata: theory and measurement. *Plant Physiology*, **1978**, 62, 406-12	6.6	106
8	Effect of abscisic Acid on the gain of the feedback loop involving carbon dioxide and stomata. *Plant Physiology*, **1978**, 62, 413-7	6.6	103
7	On the Resistance to Transpiration of the Sites of Evaporation within the Leaf. *Plant Physiology*, **1978**, 61, 1000-5	6.6	88
6	Stomatal function in relation to leaf metabolism and environment. *Symposia of the Society for Experimental Biology*, **1977**, 31, 471-505		234
5	Oscillations in stomatal conductance: the influence of environmental gain. *Plant Physiology*, **1974**, 54, 769-72	6.6	55
4	Transpiration-linked Short-circuit Currents in the Xylem of a Liana. *Journal of Experimental Botany*, **1971**, 22, 818-829	7	2
3	Contrasting photosynthetic characteristics of forest vs. savanna species (far North Queensland, Australia)		1
2	A general framework for understanding the response of the water cycle to global warming over land and ocean		1
1	Carbon Isotope Discrimination and Plant Breeding81-113		7