

# Iker Aranjuelo

## List of Publications by Citations

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93  
papers

2,104  
citations

26  
h-index

41  
g-index

95  
ext. papers

2,615  
ext. citations

4.8  
avg, IF

4.9  
L-index

#	Paper	IF	Citations
93	Plant physiology and proteomics reveals the leaf response to drought in alfalfa ( <i>Medicago sativa</i> L.). <i>Journal of Experimental Botany</i> , <b>2011</b> , 62, 111-23	7	184
92	Does ear C sink strength contribute to overcoming photosynthetic acclimation of wheat plants exposed to elevated CO <sub>2</sub> ? <i>Journal of Experimental Botany</i> , <b>2011</b> , 62, 3957-69	7	116
91	Variation in Rubisco content and activity under variable climatic factors. <i>Photosynthesis Research</i> , <b>2013</b> , 117, 73-90	3.7	100
90	Harvest index, a parameter conditioning responsiveness of wheat plants to elevated CO <sub>2</sub> . <i>Journal of Experimental Botany</i> , <b>2013</b> , 64, 1879-92	7	86
89	The response of nodulated alfalfa to water supply, temperature and elevated CO <sub>2</sub> : photosynthetic downregulation. <i>Physiologia Plantarum</i> , <b>2005</b> , 123, 348-358	4.6	73
88	Photosynthetic down-regulation under elevated CO <sub>2</sub> exposure can be prevented by nitrogen supply in nodulated alfalfa. <i>Journal of Plant Physiology</i> , <b>2010</b> , 167, 1558-65	3.6	65
87	Carbon balance, partitioning and photosynthetic acclimation in fruit-bearing grapevine ( <i>Vitis vinifera</i> L. cv. Tempranillo) grown under simulated climate change (elevated CO <sub>2</sub> , elevated temperature and moderate drought) scenarios in temperature gradient greenhouses. <i>Journal of Plant Physiology</i> , <b>2015</b> , 174, 97-109	3.6	59
86	Nodule performance within a changing environmental context. <i>Journal of Plant Physiology</i> , <b>2014</b> , 171, 1076-90	3.6	58
85	Leaf carbon management in slow-growing plants exposed to elevated CO <sub>2</sub> . <i>Global Change Biology</i> , <b>2009</b> , 15, 97-109	11.4	54
84	Effect of elevated temperature and water availability on CO <sub>2</sub> exchange and nitrogen fixation of nodulated alfalfa plants. <i>Environmental and Experimental Botany</i> , <b>2007</b> , 59, 99-108	5.9	52
83	Photosynthetic Metabolism under Stressful Growth Conditions as a Bases for Crop Breeding and Yield Improvement. <i>Plants</i> , <b>2020</b> , 9,	4.5	47
82	Effect of elevated CO <sub>2</sub> , temperature and limited water supply on antioxidant status during regrowth of nodulated alfalfa. <i>Physiologia Plantarum</i> , <b>2007</b> , 130, 33-45	4.6	46
81	The use of temperature gradient tunnels for studying the combined effect of CO <sub>2</sub> , temperature and water availability in N <sub>2</sub> fixing alfalfa plants. <i>Annals of Applied Biology</i> , <b>2005</b> , 146, 51-60	2.6	45
80	Response of nodulated alfalfa to water supply, temperature and elevated CO <sub>2</sub> : productivity and water relations. <i>Environmental and Experimental Botany</i> , <b>2006</b> , 55, 130-141	5.9	42
79	Carbon partitioning in N fixing <i>Medicago sativa</i> plants exposed to different CO and temperature conditions. <i>Functional Plant Biology</i> , <b>2008</b> , 35, 306-317	2.7	39
78	Tritordeum, wheat and triticale yield components under multi-local mediterranean drought conditions. <i>Field Crops Research</i> , <b>2010</b> , 116, 68-74	5.5	37
77	Concerted changes in N and C primary metabolism in alfalfa ( <i>Medicago sativa</i> ) under water restriction. <i>Journal of Experimental Botany</i> , <b>2013</b> , 64, 885-97	7	35

76	Measurement of <sup>13</sup> C and <sup>15</sup> N isotope labeling by gas chromatography/combustion/isotope ratio mass spectrometry to study amino acid fluxes in a plant-microbe symbiotic association. <i>Rapid Communications in Mass Spectrometry</i> , <b>2011</b> , 25, 599-607	2.2	34
75	The mechanism(s) involved in the photoprotection of PSII at elevated CO <sub>2</sub> in nodulated alfalfa plants. <i>Environmental and Experimental Botany</i> , <b>2008</b> , 64, 295-306	5.9	32
74	Elevated CO <sub>2</sub> and water-availability effect on gas exchange and nodule development in N <sub>2</sub> -fixing alfalfa plants. <i>Environmental and Experimental Botany</i> , <b>2009</b> , 65, 18-26	5.9	31
73	Nitrogen assimilation and transpiration: key processes conditioning responsiveness of wheat to elevated [CO <sub>2</sub> ] and temperature. <i>Physiologia Plantarum</i> , <b>2015</b> , 155, 338-54	4.6	30
72	Root-shoot interactions explain the reduction of leaf mineral content in Arabidopsis plants grown under elevated [CO <sub>2</sub> ] conditions. <i>Physiologia Plantarum</i> , <b>2016</b> , 158, 65-79	4.6	30
71	Root and shoot performance of Arabidopsis thaliana exposed to elevated CO <sub>2</sub> : A physiologic, metabolic and transcriptomic response. <i>Journal of Plant Physiology</i> , <b>2015</b> , 189, 65-76	3.6	28
70	Nutritional quality and yield of onion as affected by different application methods and doses of humic substances. <i>Journal of Food Composition and Analysis</i> , <b>2016</b> , 51, 37-44	4.1	26
69	Uranium perturbs signaling and iron uptake response in Arabidopsis thaliana roots. <i>Metallomics</i> , <b>2014</b> , 6, 809-21	4.5	26
68	Pea plant responsiveness under elevated [CO <sub>2</sub> ] is conditioned by the N source (N <sub>2</sub> fixation versus NO <sub>3</sub> <sup>-</sup> fertilization). <i>Environmental and Experimental Botany</i> , <b>2013</b> , 95, 34-40	5.9	26
67	Photosynthesis in a Changing Global Climate: Scaling Up and Scaling Down in Crops. <i>Frontiers in Plant Science</i> , <b>2020</b> , 11, 882	6.2	25
66	Photosynthesis, N <sub>2</sub> fixation and taproot reserves during the cutting regrowth cycle of alfalfa under elevated CO <sub>2</sub> and temperature. <i>Journal of Plant Physiology</i> , <b>2011</b> , 168, 2007-14	3.6	25
65	Rhizodeposition of organic carbon by plants with contrasting traits for resource acquisition: responses to different fertility regimes. <i>Plant and Soil</i> , <b>2015</b> , 394, 391-406	4.2	23
64	Glutathione and transpiration as key factors conditioning oxidative stress in Arabidopsis thaliana exposed to uranium. <i>Planta</i> , <b>2014</b> , 239, 817-30	4.7	23
63	Carbohydrate and nitrogen stores in <i>Festuca paniculata</i> under mowing explain dominance in subalpine grasslands. <i>Plant Biology</i> , <b>2013</b> , 15, 395-404	3.7	23
62	Wheat ear carbon assimilation and nitrogen remobilization contribute significantly to grain yield. <i>Journal of Integrative Plant Biology</i> , <b>2016</b> , 58, 914-926	8.3	23
61	Drought tolerance response of high-yielding soybean varieties to mild drought: physiological and photochemical adjustments. <i>Physiologia Plantarum</i> , <b>2019</b> , 166, 88-104	4.6	23
60	Assessing the stable carbon isotopic composition of intercellular CO <sub>2</sub> in a CAM plant using gas chromatography-combustion-isotope ratio mass spectrometry. <i>Rapid Communications in Mass Spectrometry</i> , <b>2008</b> , 22, 1017-22	2.2	22
59	Durum wheat quality traits affected by mycorrhizal inoculation, water availability and atmospheric CO <sub>2</sub> concentration. <i>Crop and Pasture Science</i> , <b>2016</b> , 67, 147	2.2	22

58	Differential CO <sub>2</sub> effect on primary carbon metabolism of flag leaves in durum wheat ( <i>Triticum durum</i> Desf.). <i>Plant, Cell and Environment</i> , <b>2015</b> , 38, 2780-94	8.4	20
57	Maintenance of C sinks sustains enhanced C assimilation during long-term exposure to elevated [CO <sub>2</sub> ] in Mojave Desert shrubs. <i>Oecologia</i> , <b>2011</b> , 167, 339-54	2.9	20
56	Plastidic phosphoglucose isomerase is an important determinant of starch accumulation in mesophyll cells, growth, photosynthetic capacity, and biosynthesis of plastidic cytokinins in <i>Arabidopsis</i> . <i>PLoS ONE</i> , <b>2015</b> , 10, e0119641	3.7	19
55	Unravelling the mechanisms that improve photosynthetic performance of N <sub>2</sub> -fixing pea plants exposed to elevated [CO <sub>2</sub> ]. <i>Environmental and Experimental Botany</i> , <b>2014</b> , 99, 167-174	5.9	18
54	(13)C/(12)C isotope labeling to study carbon partitioning and dark respiration in cereals subjected to water stress. <i>Rapid Communications in Mass Spectrometry</i> , <b>2009</b> , 23, 2819-28	2.2	18
53	Overexpression of thioredoxin m in tobacco chloroplasts inhibits the protein kinase STN7 and alters photosynthetic performance. <i>Journal of Experimental Botany</i> , <b>2019</b> , 70, 1005-1016	7	18
52	Carbon and nitrogen partitioning during the post-anthesis period is conditioned by N fertilisation and sink strength in three cereals. <i>Plant Biology</i> , <b>2013</b> , 15, 135-43	3.7	16
51	Differential Regulation of Stomatal Conductance as a Strategy to Cope With Ammonium Fertilizer Under Ambient Versus Elevated CO <sub>2</sub> . <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 597	6.2	15
50	Genetic and isotope ratio mass spectrometric evidence for the occurrence of starch degradation and cycling in illuminated <i>Arabidopsis</i> leaves. <i>PLoS ONE</i> , <b>2017</b> , 12, e0171245	3.7	15
49	Metabolic Effects of Elevated CO <sub>2</sub> on Wheat Grain Development and Composition. <i>Journal of Agricultural and Food Chemistry</i> , <b>2019</b> , 67, 8441-8451	5.7	15
48	On the relationship between C and N fixation and amino acid synthesis in nodulated alfalfa ( <i>Medicago sativa</i> ). <i>Functional Plant Biology</i> , <b>2014</b> , 41, 331-341	2.7	15
47	Photosynthetic and molecular markers of CO <sub>2</sub> -mediated photosynthetic downregulation in nodulated alfalfa. <i>Journal of Integrative Plant Biology</i> , <b>2013</b> , 55, 721-34	8.3	15
46	Elevated CO <sub>2</sub> has concurrent effects on leaf and grain metabolism but minimal effects on yield in wheat. <i>Journal of Experimental Botany</i> , <b>2020</b> , 71, 5990-6003	7	15
45	Rising temperature may negate the stimulatory effect of rising CO <sub>2</sub> on growth and physiology of <i>Wollemi pine</i> ( <i>Wollemia nobilis</i> ). <i>Functional Plant Biology</i> , <b>2015</b> , 42, 836-850	2.7	14
44	Effect of shoot removal on remobilization of carbon and nitrogen during regrowth of nitrogen-fixing alfalfa. <i>Physiologia Plantarum</i> , <b>2015</b> , 153, 91-104	4.6	13
43	Leaf (δ <sup>15</sup> N) as a physiological indicator of the responsiveness of N <sub>2</sub> -fixing alfalfa plants to elevated [CO <sub>2</sub> ], temperature and low water availability. <i>Frontiers in Plant Science</i> , <b>2015</b> , 6, 574	6.2	13
42	Impact of elevated CO <sub>2</sub> and drought on yield and quality traits of a historical (Blanqueta) and a modern (Sula) durum wheat. <i>Journal of Cereal Science</i> , <b>2019</b> , 87, 194-201	3.8	12
41	Assessment of Metal Immission in Urban Environments Using Elemental Concentrations and Zinc Isotope Signatures in Leaves of <i>Nerium oleander</i> . <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 2071-2080	10.3	12

40	Harvest index combined with impaired N availability constrains the responsiveness of durum wheat to elevated CO concentration and terminal water stress. <i>Functional Plant Biology</i> , <b>2014</b> , 41, 1138-1147	2.7	12
39	From vineyards to controlled environments in grapevine research: investigating responses to climate change scenarios using fruit-bearing cuttings. <i>Theoretical and Experimental Plant Physiology</i> , <b>2016</b> , 28, 171-191	2.4	11
38	Effects of elevated [CO <sub>2</sub> ] on photosynthesis and seed yield parameters in two soybean genotypes with contrasting water use efficiency. <i>Environmental and Experimental Botany</i> , <b>2020</b> , 178, 104154	5.9	10
37	Is vegetative area, photosynthesis, or grape C uploading involved in the climate change-related grape sugar/anthocyanin decoupling in Tempranillo?. <i>Photosynthesis Research</i> , <b>2018</b> , 138, 115-128	3.7	10
36	Physiological, Hormonal and Metabolic Responses of two Alfalfa Cultivars with Contrasting Responses to Drought. <i>International Journal of Molecular Sciences</i> , <b>2019</b> , 20,	6.3	10
35	Alteration by thioredoxin f over-expression of primary carbon metabolism and its response to elevated CO <sub>2</sub> in tobacco ( <i>Nicotiana tabacum</i> L.). <i>Environmental and Experimental Botany</i> , <b>2015</b> , 118, 40-48	5.9	9
34	Climate Change, Crop Yields, and Grain Quality of C Cereals: A Meta-Analysis of [CO <sub>2</sub> ], Temperature, and Drought Effects. <i>Plants</i> , <b>2021</b> , 10,	4.5	9
33	Physiological performance of transplastomic tobacco plants overexpressing aquaporin AQP1 in chloroplast membranes. <i>Journal of Experimental Botany</i> , <b>2018</b> , 69, 3661-3673	7	9
32	Effect of Water Stress during Grain Filling on Yield, Quality and Physiological Traits of Illpa and Rainbow Quinoa ( <i>Willd.</i> ) Cultivars. <i>Plants</i> , <b>2019</b> , 8,	4.5	8
31	Unraveling the role of transient starch in the response of Arabidopsis to elevated CO <sub>2</sub> under long-day conditions. <i>Environmental and Experimental Botany</i> , <b>2018</b> , 155, 158-164	5.9	8
30	Functional analysis of the taproot and fibrous roots of <i>Medicago truncatula</i> : Sucrose and proline catabolism primary response to water deficit. <i>Agricultural Water Management</i> , <b>2019</b> , 216, 473-483	5.9	7
29	Do metabolic changes underpin physiological responses to water limitation in alfalfa ( <i>Medicago sativa</i> ) plants during a regrowth period?. <i>Agricultural Water Management</i> , <b>2019</b> , 212, 1-11	5.9	7
28	C and N metabolism in barley leaves and peduncles modulates responsiveness to changing CO <sub>2</sub> . <i>Journal of Experimental Botany</i> , <b>2019</b> , 70, 599-611	7	6
27	Exploring Agronomic and Physiological Traits Associated With the Differences in Productivity Between Triticale and Bread Wheat in Mediterranean Environments. <i>Frontiers in Plant Science</i> , <b>2019</b> , 10, 404	6.2	6
26	Effects of long-term exposure to elevated CO <sub>2</sub> conditions in slow-growing plants using a (12)C-enriched CO <sub>2</sub> -labelling technique. <i>Rapid Communications in Mass Spectrometry</i> , <b>2009</b> , 23, 282-90	2.2	6
25	Durum Wheat Grain Yield and Quality under Low and High Nitrogen Conditions: Insights into Natural Variation in Low- and High-Yielding Genotypes. <i>Plants</i> , <b>2020</b> , 9,	4.5	6
24	Differential Flag Leaf and Ear Photosynthetic Performance Under Elevated (CO <sub>2</sub> ) Conditions During Grain Filling Period in Durum Wheat. <i>Frontiers in Plant Science</i> , <b>2020</b> , 11, 587958	6.2	6
23	Changes in environmental CO <sub>2</sub> concentration can modify Rhizobium-soybean specificity and condition plant fitness and productivity. <i>Environmental and Experimental Botany</i> , <b>2019</b> , 162, 133-143	5.9	6

22	Responsiveness of Durum Wheat to Mycorrhizal Inoculation Under Different Environmental Scenarios. <i>Journal of Plant Growth Regulation</i> , <b>2017</b> , 36, 855-867	4.7	5
21	Vitamin E in legume nodules: Occurrence and antioxidant function. <i>Phytochemistry</i> , <b>2020</b> , 172, 112261	4	5
20	Two distinct plant respiratory physiotypes might exist which correspond to fast-growing and slow-growing species. <i>Journal of Plant Physiology</i> , <b>2014</b> , 171, 1157-63	3.6	5
19	Effect of elevated CO <sub>2</sub> on carbon partitioning in young <i>Quercus ilex</i> L. during resprouting. <i>Rapid Communications in Mass Spectrometry</i> , <b>2011</b> , 25, 1527-35	2.2	5
18	Estimating Wheat Grain Yield Using Sentinel-2 Imagery and Exploring Topographic Features and Rainfall Effects on Wheat Performance in Navarre, Spain. <i>Remote Sensing</i> , <b>2020</b> , 12, 2278	5	5
17	Foliar heavy metals and stable isotope ( $\delta^{13}C$ , $\delta^{15}N$ ) profiles as reliable urban pollution biomonitoring tools. <i>Urban Forestry and Urban Greening</i> , <b>2021</b> , 57, 126918	5.4	5
16	Elevated CO <sub>2</sub> improved the growth of a double nitrate reductase defective mutant of <i>Arabidopsis thaliana</i> : The importance of maintaining a high energy status. <i>Environmental and Experimental Botany</i> , <b>2017</b> , 140, 110-119	5.9	4
15	Assessing the evolution of wheat grain traits during the last 166 years using archived samples. <i>Scientific Reports</i> , <b>2020</b> , 10, 21828	4.9	4
14	Influence of stage of development in the efficiency of nitrogen fertilization on poplar. <i>Journal of Plant Nutrition</i> , <b>2016</b> , 39, 87-98	2.3	4
13	Photosynthetic down-regulation in N <sub>2</sub> -fixing alfalfa under elevated CO <sub>2</sub> alters rubisco content and decreases nodule metabolism via nitrogenase and tricarboxylic acid cycle. <i>Acta Physiologiae Plantarum</i> , <b>2014</b> , 36, 2607-2617	2.6	4
12	P Deficiency: A Major Limiting Factor for Rhizobial Symbiosis <b>2017</b> , 21-39		3
11	A novel method for determination of the ( <sup>15</sup> N) isotopic composition of Rubisco in wheat plants exposed to elevated atmospheric carbon dioxide. <i>Physiologia Plantarum</i> , <b>2015</b> , 153, 195-203	4.6	3
10	How Does High Temperature Affect Legume Nodule Symbiotic Activity? <b>2015</b> , 67-87		2
9	Carbohydrate and Amino Acid Dynamics during Grain Growth in Four Temperate Cereals under Well-Watered and Water-Limited Regimes. <i>Agronomy</i> , <b>2021</b> , 11, 1516	3.6	2
8	Limited carbon inputs from plants into soils in arid ecosystems: a study of changes in the $\delta^{13}C$ in the soil-root interface. <i>Plant and Soil</i> , <b>2019</b> , 443, 307-322	4.2	1
7	Future Environmental Conditions will Limit Yield in N <sub>2</sub> Fixing Alfalfa <b>2012</b> , 363-382		1
6	Soybean Inoculated With One Bradyrhizobium Strain Isolated at Elevated [CO <sub>2</sub> ] Show an Impaired C and N Metabolism When Grown at Ambient [CO <sub>2</sub> ]. <i>Frontiers in Plant Science</i> , <b>2021</b> , 12, 656961	6.2	1
5	Short-Term Exposure to High Atmospheric Vapor Pressure Deficit (VPD) Severely Impacts Durum Wheat Carbon and Nitrogen Metabolism in the Absence of Edaphic Water Stress. <i>Plants</i> , <b>2021</b> , 10,	4.5	1

4	Estimating peanut and soybean photosynthetic traits using leaf spectral reflectance and advance regression models.. <i>Planta</i> , <b>2022</b> , 255, 93	4-7	1
3	Overexpression of thioredoxin m in chloroplasts alters carbon and nitrogen partitioning in tobacco. <i>Journal of Experimental Botany</i> , <b>2021</b> , 72, 4949-4964	7	0
2	Could ammonium nutrition increase plant C-sink strength under elevated CO2 conditions?. <i>Plant Science</i> , <b>2022</b> , 320, 111277	5-3	0
1	Additive effects of heatwave and water stresses on soybean seed yield is caused by impaired carbon assimilation at pod formation but not at flowering. <i>Plant Science</i> , <b>2022</b> , 321, 111320	5-3	0