# Cesar Arrese-Igor

List of Publications by Year
in descending order

| # | Article | IF | Citations |
|---|---|---|---|
| 1 | Oxidative Damage in Pea Plants Exposed to Water Deficit or Paraquat1. Plant Physiology, 1998, 116, 173-181. | 4.8 | 389 |
| 2 | The Response of Carbon Metabolism and Antioxidant Defenses of Alfalfa Nodules to Drought Stress and to the Subsequent Recovery of Plants. Plant Physiology, 2007, 144, 1104-1114. | 4.8 | 210 |
| 3 | The role of sucrose synthase in the response of soybean nodules to drought. Journal of Experimental Botany, 1995, 46, 1515-1523. | 4.8 | 189 |
| 4 | Medicago truncatula Root Nodule Proteome Analysis Reveals Differential Plant and Bacteroid Responses to Drought Stress. Plant Physiology, 2007, 144, 1495-1507. | 4.8 | 178 |
| 5 | Effects of water stress on antioxidant enzymes of leaves and nodules of transgenic alfalfa overexpressing superoxide dismutases. Physiologia Plantarum, 2002, 115, 531-540. | 5.2 | 141 |
| 6 | Reduced Carbon Availability to Bacteroids and Elevated Ureides in Nodules, But Not in Shoots, Are Involved in the Nitrogen Fixation Response to Early Drought in Soybean. Plant Physiology, 2007, 145, 539-546. | 4.8 | 124 |
| 7 | Evidence for carbon flux shortage and strong carbon/nitrogen interactions in pea nodules at early stages of water stress. Journal of Experimental Botany, 2005, 56, 2551-2561. | 4.8 | 119 |
| 8 | Nitrogen Fixation Control under Drought Stress. Localized or Systemic?. Plant Physiology, 2007, 143, 1968-1974. | 4.8 | 114 |
| 9 | Nitrogen Fixation Control under Drought Stress. Localized or Systemic?. Plant Physiology, 2007, 143, 1968-1974. | 4.8 | 114 |
| 10 | Carbon Metabolism and Bacteroid Functioning Are Involved in the Regulation of Nitrogen Fixation in<i>Medicago truncatula</i>Under Drought and Recovery. Molecular Plant-Microbe Interactions, 2009, 22, 1565-1576. | 2.6 | 114 |
| 11 | Local inhibition of nitrogen fixation and nodule metabolism in drought-stressed soybean. Journal of Experimental Botany, 2013, 64, 2171-2182. | 4.8 | 101 |
| 12 | Water-deficit effects on carbon and nitrogen metabolism of pea nodules. Journal of Experimental Botany, 1998, 49, 1705-1714. | 4.8 | 99 |
| 13 | Nodule performance within a changing environmental context. Journal of Plant Physiology, 2014, 171, 1076-1090. | 3.5 | 79 |
| 14 | Drought effects on carbon and nitrogen metabolism of pea nodules can be mimicked by paraquat: evidence for the occurrence of two regulation pathways under oxidative stresses. Journal of Experimental Botany, 2006, 57, 665-673. | 4.8 | 70 |
| 15 | Abscisic acid induces a decline in nitrogen fixation that involves leghaemoglobin, but is independent of sucrose synthase activity. Journal of Experimental Botany, 2001, 52, 285-293. | 4.8 | 68 |
| 16 | Model legumes contribute to faba bean breeding. Field Crops Research, 2010, 115, 253-269. | 5.1 | 64 |
| 17 | Possible causes of the physiological decline in soybean nitrogen fixation in the presence of nitrate. Journal of Experimental Botany, 1997, 48, 905-913. | 4.8 | 57 |
| 18 | Drought stress provokes the downâ€regulation of methionine and ethylene biosynthesis pathways in <scp><i>M</i></scp><i>edicago truncatula</i> roots and nodules. Plant, Cell and Environment, 2014, 37, 2051-2063. | 5.7 | 57 |

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|---|---|---|---|
| 19 | Insights into the regulation of nitrogen fixation in pea nodules: lessons from drought, abscisic acid and increased photoassimilate availability. Agronomy for Sustainable Development, 2001, 21, 607-613. | 0.8 | 56 |
| 20 | Continuous CO2 enrichment leads to increased nodule biomass, carbon availability to nodules and activity of carbon-metabolising enzymes but does not enhance specific nitrogen fixation in pea. Physiologia Plantarum, 2001, 113, 33-40. | 5.2 | 54 |
| 21 | Imazethapyr, an inhibitor of the branched-chain amino acid biosynthesis, induces aerobic fermentation in pea plants. Physiologia Plantarum, 2002, 114, 524-532. | 5.2 | 52 |
| 22 | NADPH recycling systems in oxidative stressed pea nodules: a key role for the NADP+-dependent isocitrate dehydrogenase. Planta, 2006, 225, 413-421. | 3.2 | 52 |
| 23 | Source of nitrogen nutrition (nitrogen fixation or nitrate assimilation) is a major factor involved in pea response to moderate water stress. Journal of Plant Physiology, 2000, 157, 609-617. | 3.5 | 49 |
| 24 | Physiological consequences of continuous, sublethal imazethapyr supply to pea plants. Journal of Plant Physiology, 2000, 157, 345-354. | 3.5 | 46 |
| 25 | Absolute quantification of Medicago truncatula sucrose synthase isoforms and N-metabolism enzymes in symbiotic root nodules and the detection of novel nodule phosphoproteins by mass spectrometry. Journal of Experimental Botany, 2008, 59, 3307-3315. | 4.8 | 40 |
| 26 | Is N-feedback involved in the inhibition of nitrogen fixation in drought-stressed<i>Medicago truncatula</i>?. Journal of Experimental Botany, 2013, 64, 281-292. | 4.8 | 38 |
| 27 | Enhanced expression of Rhizobium etli cbb 3 oxidase improves drought tolerance of common bean symbiotic nitrogen fixation. Journal of Experimental Botany, 2012, 63, 5035-5043. | 4.8 | 34 |
| 28 | Evidence for Transcriptional and Post-Translational Regulation of Sucrose Synthase in Pea Nodules by the Cellular Redox State. Molecular Plant-Microbe Interactions, 2008, 21, 622-630. | 2.6 | 33 |
| 29 | Pea plant responsiveness under elevated [CO2] is conditioned by the N source (N2 fixation versus) Tj ETQq1 1 0.784314 rgBT /Overlock | 4.2 | 32 |
| 30 | Fermentative Metabolism Is Induced by Inhibiting Different Enzymes of the Branched-Chain Amino Acid Biosynthesis Pathway in Pea Plants. Journal of Agricultural and Food Chemistry, 2005, 53, 7486-7493. | 5.2 | 30 |
| 31 | The application of ascorbate or its immediate precursor, galactono-1,4-lactone, does not affect the response of nitrogen-fixing pea nodules to water stress. Journal of Plant Physiology, 2008, 165, 805-812. | 3.5 | 30 |
| 32 | Splitâ€root systems applied to the study of the legumeâ€rhizobial symbiosis: What have we learned?. Journal of Integrative Plant Biology, 2014, 56, 1118-1124. | 8.5 | 26 |
| 33 | A proteomic approach reveals new actors of nodule response to drought in splitâ€root grown pea plants. Physiologia Plantarum, 2014, 152, 634-645. | 5.2 | 26 |
| 34 | Denitrifying ability of thirteen Rhizobium meliloti strains. Plant and Soil, 1993, 149, 43-50. | 3.7 | 25 |
| 35 | Nodule carbohydrate catabolism is enhanced in the Medicago truncatula A17-Sinorhizobium medicae WSM419 symbiosis. Frontiers in Microbiology, 2014, 5, 447. | 3.5 | 24 |
| 36 | Soybean-Nodulating Strains With Low Intrinsic Competitiveness for Nodulation, Good Symbiotic Performance, and Stress-Tolerance Isolated From Soybean-Cropped Soils in Argentina. Frontiers in Microbiology, 2019, 10, 1061. | 3.5 | 24 |

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|---|---|---|---|
| 37 | Tolerance of common bean to long-term osmotic stress is related to nodule carbon flux and antioxidant defenses: evidence from two cultivars with contrasting tolerance. Plant and Soil, 2008, 312, 39-48. | 3.7 | 23 |
| 38 | Expression Studies of Superoxide Dismutases in Nodules and Leaves of Transgenic Alfalfa Reveal Abundance of Iron-Containing Isozymes, Posttranslational Regulation, and Compensation of Isozyme Activities. Molecular Plant-Microbe Interactions, 2001, 14, 1178-1188. | 2.6 | 21 |
| 39 | Unravelling the mechanisms that improve photosynthetic performance of N2-fixing pea plants exposed to elevated [CO2]. Environmental and Experimental Botany, 2014, 99, 167-174. | 4.2 | 19 |
| 40 | Source of nitrogen nutrition affects pea growth involving changes in stomatal conductance and photorespiration. Journal of Plant Nutrition, 1999, 22, 911-926. | 1.9 | 18 |
| 41 | Effect of shoot removal on remobilization of carbon and nitrogen during regrowth of nitrogenâ€fixing alfalfa. Physiologia Plantarum, 2015, 153, 91-104. | 5.2 | 18 |
| 42 | Physiological, Hormonal and Metabolic Responses of two Alfalfa Cultivars with Contrasting Responses to Drought. International Journal of Molecular Sciences, 2019, 20, 5099. | 4.1 | 18 |
| 43 | In vitro and in vivo Effects of Chlorsulfuron in Sensitive and Tolerant plants. Journal of Plant Physiology, 1991, 139, 235-239. | 3.5 | 16 |
| 44 | Imazethapyr inhibition of acetolactate synthase inRhizobiumand its symbiosis with pea. Pest Management Science, 1998, 52, 372-380. | 0.4 | 16 |
| 45 | Distribution of nitrate reductase activity in nodulated lucerne plants. Plant and Soil, 1991, 131, 107-113. | 3.7 | 14 |
| 46 | Denitrification in lucerne nodules and bacteroids supplied with nitrate. Physiologia Plantarum, 1992, 84, 531-536. | 5.2 | 14 |
| 47 | Expression and Localization of a <i>Rhizobium</i>-Derived Cambialistic Superoxide Dismutase in Pea (<i>Pisum sativum</i>) Nodules Subjected to Oxidative Stress. Molecular Plant-Microbe Interactions, 2011, 24, 1247-1257. | 2.6 | 14 |
| 48 | Application of anti-transpirants temporarily alleviates the inhibition of symbiotic nitrogen fixation in drought-stressed pea plants. Agricultural Water Management, 2019, 213, 193-199. | 5.6 | 14 |
| 49 | Use of Recombinant Ironâ€Superoxide Dismutase as A Marker of Nitrative Stress. Methods in Enzymology, 2008, 437, 605-618. | 1.0 | 11 |
| 50 | Understanding osmotic stress tolerance in leaves and nodules of two Phaseolus vulgaris cultivars with contrasting drought tolerance. Symbiosis, 2010, 52, 1-10. | 2.3 | 11 |
| 51 | Physiological Responses of N2-Fixing Legumes to Water Limitation. , 2015, , 5-33. | | 10 |
| 52 | Solute Heterogeneity and Osmotic Adjustment in Different Leaf Structures of Semi-Leafless Pea (Pisum) Tj ETQq0 0 0 rgBT /Overlock 10 | 3.8 | 9 |
| 53 | Denitrification and Respiration in Rhizobium meliloti Bacteroids and Lucerne Nodules as Affected by Nitrate Supply. Journal of Plant Physiology, 1992, 139, 373-378. | 3.5 | 8 |
| 54 | A novel biosensor to monitor proline in pea root exudates and nodules under osmotic stress and recovery. Plant and Soil, 2020, 452, 413-422. | 3.7 | 8 |

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|---|---|---|---|
| 55 | Nitrate reduction in tendrils of semi-leafless pea. Physiologia Plantarum, 2001, 111, 329-335. | 5.2 | 5 |
| 56 | Efficient Biological Nitrogen Fixation Under Warming Climates. , 2010, , 283-306. | | 5 |
| 57 | How Does High Temperature Affect Legume Nodule Symbiotic Activity?. , 2015, , 67-87. | | 4 |
| 58 | P Deficiency: A Major Limiting Factor for Rhizobial Symbiosis. , 2017, , 21-39. | | 4 |
| 59 | Additive effects of heatwave and water stresses on soybean seed yield is caused by impaired carbon assimilation at pod formation but not at flowering. Plant Science, 2022, 321, 111320. | 3.6 | 4 |
| 60 | Title is missing!. Plant and Soil, 1999, 216, 139-145. | 3.7 | 3 |
| 61 | TRANSPIRATION RATE AND AMINO ACID DISTRIBUTION IN WATER STRESSED MEDICAGO TRUNCATULA PLANTS. Acta Horticulturae, 2009, , 339-344. | 0.2 | 1 |
| 62 | Increased Ascorbate Biosynthesis Does Not Improve Nitrogen Fixation Nor Alleviate the Effect of Drought Stress in Nodulated Medicago truncatula Plants. Frontiers in Plant Science, 2021, 12, 686075. | 3.6 | 0 |