

# Carmen Gonzalez-Murua

## List of Publications by Citations

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92  
papers

2,165  
citations

31  
h-index

41  
g-index

97  
ext. papers

2,562  
ext. citations

4.8  
avg, IF

4.87  
L-index

#	Paper	IF	Citations
92	Efficiency of nitrification inhibitor DMPP to reduce nitrous oxide emissions under different temperature and moisture conditions. <i>Soil Biology and Biochemistry</i> , <b>2012</b> , 53, 82-89	7.5	120
91	N <sub>2</sub> O and NO emissions from different N sources and under a range of soil water contents. <i>Nutrient Cycling in Agroecosystems</i> , <b>2006</b> , 74, 229-243	3.3	90
90	Dicyandiamide and 3,4-dimethyl pyrazole phosphate decrease N <sub>2</sub> O emissions from grassland but dicyandiamide produces deleterious effects in clover. <i>Journal of Plant Physiology</i> , <b>2003</b> , 160, 1517-23	3.6	81
89	Exploring ammonium tolerance in a large panel of Arabidopsis thaliana natural accessions. <i>Journal of Experimental Botany</i> , <b>2014</b> , 65, 6023-33	7	73
88	3,4-Dimethylpyrazol phosphate effect on nitrous oxide, nitric oxide, ammonia, and carbon dioxide emissions from grasslands. <i>Journal of Environmental Quality</i> , <b>2006</b> , 35, 973-81	3.4	73
87	Effectiveness of mycorrhizal inoculation in the nursery on growth and water relations of Pinus radiata in different water regimes. <i>Tree Physiology</i> , <b>2004</b> , 24, 65-73	4.2	63
86	High irradiance improves ammonium tolerance in wheat plants by increasing N assimilation. <i>Journal of Plant Physiology</i> , <b>2013</b> , 170, 758-71	3.6	61
85	3, 4-Dimethylpyrazole phosphate reduces nitrous oxide emissions from grassland after slurry application. <i>Soil Use and Management</i> , <b>2005</b> , 21, 53-57	3.1	59
84	Effect of N-(n-butyl) thiophosphoric triamide and 3,4 dimethylpyrazole phosphate on gaseous emissions from grasslands under different soil water contents. <i>Journal of Environmental Quality</i> , <b>2009</b> , 38, 27-35	3.4	58
83	Soil water content modulates the effect of the nitrification inhibitor 3,4-dimethylpyrazole phosphate (DMPP) on nitrifying and denitrifying bacteria. <i>Geoderma</i> , <b>2017</b> , 303, 1-8	6.7	49
82	Zea mays L. amylacea from the Lluta Valley (Arica-Chile) tolerates salinity stress when high levels of boron are available. <i>Plant and Soil</i> , <b>2004</b> , 267, 73-84	4.2	49
81	Long-term effect of tillage, crop rotation and N fertilization to wheat on gaseous emissions under rainfed Mediterranean conditions. <i>European Journal of Agronomy</i> , <b>2008</b> , 28, 559-569	5	48
80	Physiological consequences of continuous, sublethal imazethapyr supply to pea plants. <i>Journal of Plant Physiology</i> , <b>2000</b> , 157, 345-354	3.6	44
79	Quantitative proteomics reveals the importance of nitrogen source to control glucosinolate metabolism in Arabidopsis thaliana and Brassica oleracea. <i>Journal of Experimental Botany</i> , <b>2016</b> , 67, 3313-23	7.23	43
78	Dimethyl pyrazol-based nitrification inhibitors effect on nitrifying and denitrifying bacteria to mitigate NO emission. <i>Scientific Reports</i> , <b>2017</b> , 7, 13810	4.9	42
77	Effect of Phosphlnothricin (Glufosinate) on Photosynthesis and Chlorophyll Fluorescence Emission by Barley Leaves Illuminated Under Photorespiratory and Non-Photorespiratory Conditions. <i>Journal of Experimental Botany</i> , <b>1992</b> , 43, 159-165	7	40
76	Denitrification losses from a natural grassland in the Basque Country under organic and inorganic fertilization. <i>Plant and Soil</i> , <b>1994</b> , 162, 19-29	4.2	39

75	Boric acid and salinity effects on maize roots. Response of aquaporins ZmPIP1 and ZmPIP2, and plasma membrane H <sup>+</sup> -ATPase, in relation to water and nutrient uptake. <i>Physiologia Plantarum</i> , <b>2008</b> , 132, 479-90	4.6	38
74	Effect of Phosphinothricin (Glufosinate) on Activities of Glutamine Synthetase and Glutamate Dehydrogenase in <i>Medicago sativa</i> L.. <i>Journal of Plant Physiology</i> , <b>1989</b> , 134, 304-307	3.6	37
73	CO <sub>2</sub> enrichment modulates ammonium nutrition in tomato adjusting carbon and nitrogen metabolism to stomatal conductance. <i>Plant Science</i> , <b>2015</b> , 241, 32-44	5.3	36
72	Temporal Study of the Effect of Phosphinothricin on the Activity of Glutamine Synthetase, Glutamate Dehydrogenase and Nitrate Reductase in <i>Medicago sativa</i> L.. <i>Journal of Plant Physiology</i> , <b>1990</b> , 136, 410-414	3.6	36
71	Splitting the application of 3,4-dimethylpyrazole phosphate (DMPP): Influence on greenhouse gases emissions and wheat yield and quality under humid Mediterranean conditions. <i>European Journal of Agronomy</i> , <b>2015</b> , 64, 47-57	5	35
70	Depletion of the heaviest stable N isotope is associated with NH <sub>4</sub> <sup>+</sup> /NH <sub>3</sub> toxicity in NH <sub>4</sub> <sup>+</sup> -fed plants. <i>BMC Plant Biology</i> , <b>2011</b> , 11, 83	5.3	35
69	Nitrification and denitrification derived N <sub>2</sub> O production from a grassland soil under application of DCD and Actilith F2. <i>Nutrient Cycling in Agroecosystems</i> , <b>2001</b> , 60, 9-14	3.3	35
68	Glycolate accumulation causes a decrease of photosynthesis by inhibiting RUBISCO activity in maize. <i>Journal of Plant Physiology</i> , <b>1997</b> , 150, 388-394	3.6	34
67	The new nitrification inhibitor 3,4-dimethylpyrazole succinic (DMPSA) as an alternative to DMPP for reducing N <sub>2</sub> O emissions from wheat crops under humid Mediterranean conditions. <i>European Journal of Agronomy</i> , <b>2016</b> , 80, 78-87	5	34
66	Nitrogen Source and External Medium pH Interaction Differentially Affects Root and Shoot Metabolism in <i>Arabidopsis</i> . <i>Frontiers in Plant Science</i> , <b>2016</b> , 7, 29	6.2	33
65	Spatial and temporal dynamics of the colonization of <i>Pinus radiata</i> by <i>Fusarium circinatum</i> , of conidiophora development in the pith and of traumatic resin duct formation. <i>New Phytologist</i> , <b>2013</b> , 198, 1215-1227	9.8	32
64	The effect of NaCl salinity and water stress with polyethylene glycol on nitrogen fixation, stomatal response and transpiration of <i>Medicago sativa</i> , <i>Trifolium repens</i> and <i>Trifolium brachycalycinum</i> (subclover). <i>Physiologia Plantarum</i> , <b>1982</b> , 54, 361-366	4.6	32
63	Urea-based fertilization strategies to reduce yield-scaled N oxides and enhance bread-making quality in a rainfed Mediterranean wheat crop. <i>Agriculture, Ecosystems and Environment</i> , <b>2018</b> , 265, 421-431	5.7	31
62	Root phosphoenolpyruvate carboxylase and NAD-malic enzymes activity increase the ammonium-assimilating capacity in tomato. <i>Journal of Plant Physiology</i> , <b>2014</b> , 171, 49-63	3.6	31
61	Ammonium as sole N source improves grain quality in wheat. <i>Journal of the Science of Food and Agriculture</i> , <b>2013</b> , 93, 2162-71	4.3	31
60	Elevated CO <sub>2</sub> Induces Root Defensive Mechanisms in Tomato Plants When Dealing with Ammonium Toxicity. <i>Plant and Cell Physiology</i> , <b>2017</b> , 58, 2112-2125	4.9	29
59	Effects of glyphosate [N-(phosphonomethyl)glycine] on photosynthetic pigments, stomatal response and photosynthetic electron transport in <i>Medicago sativa</i> and <i>Trifolium pratense</i> . <i>Physiologia Plantarum</i> , <b>1986</b> , 66, 63-68	4.6	25
58	Denitrifying ability of thirteen <i>Rhizobium meliloti</i> strains. <i>Plant and Soil</i> , <b>1993</b> , 149, 43-50	4.2	23

57	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
56	Mild ammonium stress increases chlorophyll content in <i>Arabidopsis thaliana</i> . <i>Plant Signaling and Behavior</i> , <b>2015</b> , 10, e991596	2.5	18
55	3,4-Dimethylpyrazole phosphate and 2-(N-3,4-dimethyl-1H-pyrazol-1-yl) succinic acid isomeric mixture nitrification inhibitors: Quantification in plant tissues and toxicity assays. <i>Science of the Total Environment</i> , <b>2018</b> , 624, 1180-1186	10.2	18
54	Physiological aspects underlying the improved outplanting performance of <i>Pinus pinaster</i> Ait. seedlings associated with ectomycorrhizal inoculation. <i>Mycorrhiza</i> , <b>2013</b> , 23, 627-40	3.9	18
53	Clover and ryegrass are tolerant species to ammonium nutrition. <i>Journal of Plant Physiology</i> , <b>2007</b> , 164, 1583-94	3.6	18
52	Effects of cattle slurry and mineral N fertilizer applications on various components of the nitrogen balance of mown grassland. <i>Plant and Soil</i> , <b>1997</b> , 188, 49-58	4.2	17
51	DMPSA and DMPP equally reduce N <sub>2</sub> O emissions from a maize-ryegrass forage rotation under Atlantic climate conditions. <i>Atmospheric Environment</i> , <b>2018</b> , 187, 255-265	5.3	17
50	Inhibition of endogenous urease activity by NBPT application reveals differential N metabolism responses to ammonium or nitrate nutrition in pea plants: a physiological study. <i>Plant and Soil</i> , <b>2013</b> , 373, 813-827	4.2	16
49	Greenhouse gas fluxes (CO <sub>2</sub> , N <sub>2</sub> O and CH <sub>4</sub> ) from forest soils in the Basque Country: Comparison of different tree species and growth stages. <i>Forest Ecology and Management</i> , <b>2013</b> , 310, 600-611	3.9	16
48	The contribution of <i>Rhizobium meliloti</i> to soil denitrification. <i>Plant and Soil</i> , <b>1993</b> , 157, 207-213	4.2	16
47	The Effect of NaCl and Water Stress on Germination and $\beta$ -Galactosidase Activity in Germinated Seeds of <i>Medicago sativa</i> , <i>Trifolium repens</i> and <i>T. brachycalycinum</i> . <i>Journal of Plant Physiology</i> , <b>1985</b> , 119, 317-326	3.6	16
46	Relationship between tillage management and DMPSA nitrification inhibitor efficiency. <i>Science of the Total Environment</i> , <b>2020</b> , 718, 134748	10.2	16
45	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
44	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
43	Comparative effects of PPT and AOA on photosynthesis and fluorescence chlorophyll parameters in <i>Zea mays</i> . <i>Journal of Plant Physiology</i> , <b>1997</b> , 151, 641-648	3.6	15
42	Imazethapyr inhibition of acetolactate synthase in <i>Rhizobium</i> and its symbiosis with pea. <i>Pest Management Science</i> , <b>1998</b> , 52, 372-380		15
41	Enlisting wild grass genes to combat nitrification in wheat farming: A nature-based solution. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2021</b> , 118,	11.5	15
40	In vitro and in vivo Effects of Chlorsulfuron in Sensitive and Tolerant plants. <i>Journal of Plant Physiology</i> , <b>1991</b> , 139, 235-239	3.6	14

39	Mechanism of action of nitrification inhibitors based on dimethylpyrazole: A matter of chelation. <i>Science of the Total Environment</i> , <b>2021</b> , 752, 141885	10.2	14
38	New insights into radiata pine seedling root infection by <i>Fusarium circinatum</i> . <i>Plant Pathology</i> , <b>2015</b> , 64, 1336-1348	2.8	13
37	Nitrogen Assimilation in the Highly Salt- and Boron-Tolerant Ecotype <i>L. Amylacea</i> . <i>Plants</i> , <b>2020</b> , 9,	4.5	13
36	Effect of Low Nitrate Supply on Nitrogen Fixation in Alfalfa Root Nodules Induced by <i>Rhizobium meliloti</i> Strains with Varied Nitrate Reductase Activity. <i>Journal of Plant Physiology</i> , <b>1989</b> , 135, 207-211	3.6	13
35	Glutamine synthetase from mesophyll and bundle sheath maize cells: isoenzyme complements and different sensitivities to phosphinothricin. <i>Plant Cell Reports</i> , <b>2000</b> , 19, 1127-1134	5.1	12
34	Effect of cow slurry N on herbage productivity, efficiency of N utilization and on white clover content in a natural sward in the Basque Country, Spain. <i>Grass and Forage Science</i> , <b>1996</b> , 51, 1-7	2.3	12
33	Effect of Glyphosate on the Greening Process and Photosynthetic Metabolism in <i>Chlorella pyrenoidosa</i> . <i>Journal of Plant Physiology</i> , <b>1989</b> , 134, 26-31	3.6	12
32	Joint application of urease and nitrification inhibitors to diminish gaseous nitrogen losses under different tillage systems. <i>Journal of Cleaner Production</i> , <b>2021</b> , 289, 125701	10.3	12
31	Isotopic labelling reveals the efficient adaptation of wheat root TCA cycle flux modes to match carbon demand under ammonium nutrition. <i>Scientific Reports</i> , <b>2019</b> , 9, 8925	4.9	10
30	Phosphinothricin Reverts the Ammonia-Dependent Enhancement of Phosphoenolpyruvate Carboxylase Activity. <i>Journal of Plant Physiology</i> , <b>1995</b> , 145, 11-16	3.6	10
29	Performance and Soil Persistence of Chlorsulfuron when Used for Wheat Production in Spain. <i>Weed Science</i> , <b>1990</b> , 38, 546-552	2	10
28	N Natural Abundance Evidences a Better Use of N Sources by Late Nitrogen Application in Bread Wheat. <i>Frontiers in Plant Science</i> , <b>2018</b> , 9, 853	6.2	9
27	Assessment of the diversity and abundance of the total and active fungal population and its correlation with humification during two-phase olive mill waste (Alperujo) composting. <i>Bioresource Technology</i> , <b>2020</b> , 295, 122267	11	9
26	Unraveling DMPSA nitrification inhibitor impact on soil bacterial consortia under different tillage systems. <i>Agriculture, Ecosystems and Environment</i> , <b>2020</b> , 301, 107029	5.7	8
25	Late nitrogen fertilization affects nitrogen remobilization in wheat. <i>Journal of Plant Nutrition and Soil Science</i> , <b>2012</b> , 175, 115-124	2.3	8
24	Effect of Photorespiratory C(2) Acids on CO(2) Assimilation, PS II Photochemistry and the Xanthophyll Cycle in Maize. <i>Photosynthesis Research</i> , <b>2003</b> , 78, 161-73	3.7	8
23	Nitrogen losses by denitrification and leaching in grassland. <i>Fertilizer Research</i> , <b>1996</b> , 43, 197-201		7
22	Involvement of the metabolically active bacteria in the organic matter degradation during olive mill waste composting. <i>Science of the Total Environment</i> , <b>2021</b> , 789, 147975	10.2	7

21	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
20	3,4-dimethylpyrazole phosphate (DMPP) Reduces N <sub>2</sub> O Emissions from a Tilled Grassland in the Bogotá Savanna. <i>Agronomy</i> , <b>2019</b> , 9, 102	3.6	6
19	The nitrification inhibitor 3,4-dimethylpyrazole phosphate decreases leaf nitrate content in lettuce while maintaining yield and N <sub>2</sub> O emissions in the Savanna of Bogotá. <i>Plant, Soil and Environment</i> , <b>2016</b> , 62, 533-539	2.2	5
18	Effect of atrazine and methabenzthiazuron on oxygen evolution and cell growth of <i>Chlorella pyrenoidosa</i> . <i>Weed Research</i> , <b>1985</b> , 25, 61-66	1.9	5
17	Effects of Glyphosate N-(phosphonomethyl)-glycine on Water Potential, and Activities of Nitrate and Nitrite Reductase and Aspartate Aminotransferase in Lucerne and Clover. <i>Journal of Plant Physiology</i> , <b>1986</b> , 123, 107-115	3.6	5
16	Mitigation of yield-scaled nitrous oxide emissions and global warming potential in an oilseed rape crop through N source management. <i>Journal of Environmental Management</i> , <b>2021</b> , 288, 112304	7.9	5
15	Foliar heavy metals and stable isotope ( <sup>13</sup> C, <sup>15</sup> N) profiles as reliable urban pollution biomonitoring tools. <i>Urban Forestry and Urban Greening</i> , <b>2021</b> , 57, 126918	5.4	5
14	Impact of dimethylpyrazole-based nitrification inhibitors on soil-borne bacteria. <i>Science of the Total Environment</i> , <b>2021</b> , 792, 148374	10.2	5
13	Interactive effects of excess boron and salinity on histological and ultrastructural leaves of <i>Zea mays amylacea</i> from the Lluta Valley (Arica-Chile). <i>Ciencia E Investigacion Agraria</i> , <b>2013</b> , 40, 581-595		4
12	Multi-omic and physiologic approach to understand <i>Lotus japonicus</i> response upon exposure to 3,4 dimethylpyrazole phosphate nitrification inhibitor. <i>Science of the Total Environment</i> , <b>2019</b> , 660, 1201-1209	10.2	2
11	Interactive effects of excess boron and salinity on response curves of gas exchange to increase in the intensity of light of <i>Zea mays amylacea</i> from the Lluta Valley (Arica-Chile). <i>Idesia</i> , <b>2015</b> , 33, 33-38	1.4	2
10	The effect of asulam on water potential and nitrate reduction. <i>Plant Science</i> , <b>1986</b> , 46, 21-27	5.3	2
9	The scarcity and distribution of rainfall drove the performance (i.e., mitigation of N oxide emissions, crop yield and quality) of calcium ammonium nitrate management in a wheat crop under rainfed semiarid conditions. <i>Archives of Agronomy and Soil Science</i> , <b>2020</b> , 66, 1827-1844	2	2
8	Compost and PGP-Based Biostimulant as Alternative to Peat and NPK Fertilization in Chestnut ( <i>Castanea Sativa</i> Mill.) Nursery Production. <i>Forests</i> , <b>2021</b> , 12, 850	2.8	2
7	Quality assessment of <i>Pinus radiata</i> production under sustainable nursery management based on compost tea. <i>Journal of Plant Nutrition and Soil Science</i> , <b>2019</b> , 182, 356-366	2.3	2
6	A Multi-Species Analysis Defines Anaplerotic Enzymes and Amides as Metabolic Markers for Ammonium Nutrition. <i>Frontiers in Plant Science</i> , <b>2020</b> , 11, 632285	6.2	2
5	Nitrous Oxide (N <sub>2</sub> O) Emissions from Forests, Grasslands and Agricultural Soils in Northern Spain <b>2020</b> , 341-349		1
4	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

- 3 Dimethylpyrazole-based nitrification inhibitors have a dual role in NO emissions mitigation in forage systems under Atlantic climate conditions. *Science of the Total Environment*, **2022**, 807, 150670 10.2 ○
- 2 Assessing the efficiency of dimethylpyrazole-based nitrification inhibitors under elevated CO2 conditions. *Geoderma*, **2021**, 400, 115160 6.7 ○
- 1 The effect of cattle slurry electroflotation products as fertilizers on gaseous emissions and grassland yield. *Journal of Environmental Quality*, **2008**, 37, 956-62 3.4