Mara L Cayuela

List of Publications by Citations

71 papers	4,773 citations	37 h-index	69 g-index
79 ext. papers	5,858 ext. citations	7 avg, IF	5.84 L-index

#	Paper	IF	Citations
71	Biochar's role in mitigating soil nitrous oxide emissions: A review and meta-analysis. *Agriculture, Ecosystems and Environment*, **2014**, 191, 5-16	5.7	564
70	An overview on olive mill wastes and their valorisation methods. *Waste Management*, **2006**, 26, 960-9	8.6	522
69	Biochar and denitrification in soils: when, how much and why does biochar reduce N O emissions?. *Scientific Reports*, **2013**, 3, 1732	4.9	399
68	Biochar accelerates organic matter degradation and enhances N mineralisation during composting of poultry manure without a relevant impact on gas emissions. *Bioresource Technology*, **2015**, 192, 272-9	11	223
67	Role of biochar as an additive in organic waste composting. *Bioresource Technology*, **2018**, 247, 1155-1164	11	200
66	Biochar, soil and land-use interactions that reduce nitrate leaching and NO emissions: A meta-analysis. *Science of the Total Environment*, **2019**, 651, 2354-2364	10.2	174
65	Strategies for greenhouse gas emissions mitigation in Mediterranean agriculture: A review. *Agriculture, Ecosystems and Environment*, **2017**, 238, 5-24	5.7	137
64	Direct nitrous oxide emissions in Mediterranean climate cropping systems: Emission factors based on a meta-analysis of available measurement data. *Agriculture, Ecosystems and Environment*, **2017**, 238, 25-35	5.7	129
63	The molar H:Corg ratio of biochar is a key factor in mitigating N2O emissions from soil. *Agriculture, Ecosystems and Environment*, **2015**, 202, 135-138	5.7	123
62	Short term effects of bioenergy by-products on soil C and N dynamics, nutrient availability and biochemical properties. *Agriculture, Ecosystems and Environment*, **2012**, 160, 3-14	5.7	120
61	Biochar improves N cycling during composting of olive mill wastes and sheep manure. *Waste Management*, **2016**, 49, 553-559	8.6	116
60	Residues of bioenergy production chains as soil amendments: immediate and temporal phytotoxicity. *Journal of Hazardous Materials*, **2011**, 186, 2017-25	12.8	108
59	Mineralization dynamics and biochemical properties during initial decomposition of plant and animal residues in soil. *Applied Soil Ecology*, **2009**, 41, 118-127	5	104
58	Evaluation of two different aeration systems for composting two-phase olive mill wastes. *Process Biochemistry*, **2006**, 41, 616-623	4.8	99
57	Soil microbial biomass activation by trace amounts of readily available substrate. *Biology and Fertility of Soils*, **2006**, 42, 542-549	6.1	98
56	Feedstock choice, pyrolysis temperature and type influence biochar characteristics: a comprehensive meta-data analysis review. *Biochar*, **2020**, 2, 421-438	10	96
55	BIOCHAR AS A TOOL TO REDUCE THE AGRICULTURAL GREENHOUSE-GAS BURDEN KNOWNS, UNKNOWNS AND FUTURE RESEARCH NEEDS. *Journal of Environmental Engineering and Landscape Management*, **2017**, 25, 114-139	1.1	93

54	Potential of olive mill waste and compost as biobased pesticides against weeds, fungi, and nematodes. *Science of the Total Environment*, **2008**, 399, 11-8	10.2	81
53	Chemical properties and hydrolytic enzyme activities for the characterisation of two-phase olive mill wastes composting. *Bioresource Technology*, **2008**, 99, 4255-62	11	80
52	The long-term role of organic amendments in building soil nutrient fertility: a meta-analysis and review. *Nutrient Cycling in Agroecosystems*, **2018**, 111, 103-125	3.3	73
51	Greenhouse gas emissions from organic waste composting. *Environmental Chemistry Letters*, **2015**, 13, 223-238	13.3	68
50	Soil application of meat and bone meal. Short-term effects on mineralization dynamics and soil biochemical and microbiological properties. *Soil Biology and Biochemistry*, **2008**, 40, 462-474	7.5	65
49	Fluorescein diacetate hydrolysis, respiration and microbial biomass in freshly amended soils. *Biology and Fertility of Soils*, **2008**, 44, 885-890	6.1	62
48	Compost vs biochar amendment: a two-year field study evaluating soil C build-up and N dynamics in an organically managed olive crop. *Plant and Soil*, **2016**, 408, 1-14	4.2	52
47	Enhancing biochar redox properties through feedstock selection, metal preloading and post-pyrolysis treatments. *Chemical Engineering Journal*, **2020**, 395, 125100	14.7	45
46	Agronomic Evaluation of Biochar, Compost and Biochar-Blended Compost across Different Cropping Systems: Perspective from the European Project FERTIPLUS. *Agronomy*, **2019**, 9, 225	3.6	44
45	Bioenergy from cattle manure? Implications of anaerobic digestion and subsequent pyrolysis for carbon and nitrogen dynamics in soil *GCB Bioenergy*, **2012**, 4, 751-760	5.6	44
44	Biochemical changes and GHG emissions during composting of lignocellulosic residues with different N-rich by-products. *Chemosphere*, **2012**, 88, 196-203	8.4	42
43	The mineralisation of fresh and humified soil organic matter by the soil microbial biomass. *Waste Management*, **2008**, 28, 716-22	8.6	42
42	Nitrous oxide and carbon dioxide emissions during initial decomposition of animal by-products applied as fertilisers to soils. *Geoderma*, **2010**, 157, 235-242	6.7	41
41	Interactive priming of soil N transformations from combining biochar and urea inputs: A 15N isotope tracer study. *Soil Biology and Biochemistry*, **2019**, 131, 166-175	7.5	40
40	Plant and animal wastes composting: effects of the N source on process performance. *Bioresource Technology*, **2009**, 100, 3097-106	11	38
39	Two-phase olive mill waste composting: enhancement of the composting rate and compost quality by grape stalks addition. *Biodegradation*, **2010**, 21, 465-73	4.1	38
38	Composting Olive Mill Waste and Sheep Manure For Orchard Use. *Compost Science and Utilization*, **2004**, 12, 130-136	1.2	38
37	The use of elemental sulphur as organic alternative to control pH during composting of olive mill wastes. *Chemosphere*, **2004**, 57, 1099-105	8.4	38

36	How biochar works, and when it doesn't: A review of mechanisms controlling soil and plant responses to biochar. *GCB Bioenergy*, **2021**, 13, 1731	5.6	38
35	Understanding, measuring and tuning the electrochemical properties of biochar for environmental applications. *Reviews in Environmental Science and Biotechnology*, **2017**, 16, 695-715	13.9	37
34	Potential of olive mill wastes for soil C sequestration. *Waste Management*, **2008**, 28, 767-73	8.6	35
33	Biochar increases soil N2O emissions produced by nitrification-mediated pathways. *Frontiers in Environmental Science*, **2014**, 2,	4.8	32
32	Greenhouse gas emissions and carbon sink capacity of amended soils evaluated under laboratory conditions. *Soil Biology and Biochemistry*, **2007**, 39, 1366-1374	7.5	29
31	Biochar reduces volatile organic compounds generated during chicken manure composting. *Bioresource Technology*, **2019**, 288, 121584	11	27
30	Duckweed (Lemna gibba) growth inhibition bioassay for evaluating the toxicity of olive mill wastes before and during composting. *Chemosphere*, **2007**, 68, 1985-91	8.4	27
29	High concentrations of polycyclic aromatic hydrocarbons (naphthalene, phenanthrene and pyrene) failed to explain biochar's capacity to reduce soil nitrous oxide emissions. *Environmental Pollution*, **2015**, 196, 72-7	9.3	25
28	Matrix effect on the performance of headspace solid phase microextraction method for the analysis of target volatile organic compounds (VOCs) in environmental samples. *Chemosphere*, **2013**, 93, 2311-8	8.4	25
27	Bioenergy by-products as soil amendments? Implications for carbon sequestration and greenhouse gas emissions. *GCB Bioenergy*, **2010**, 2, no-no	5.6	25
26	Biochar in climate change mitigation. *Nature Geoscience*, **2021**, 14, 883-892	18.3	25
25	Biochar in agriculture A systematic review of 26 global meta-analyses. *GCB Bioenergy*, **2021**, 13, 1708	5.6	23
24	A simple automated system for measuring soil respiration by gas chromatography. *Talanta*, **2010**, 81, 849-55	6.2	21
23	Modification of the RothC model to simulate soil C mineralization of exogenous organic matter. *Biogeosciences*, **2017**, 14, 3253-3274	4.6	19
22	Biochar reduces the efficiency of nitrification inhibitor 3,4-dimethylpyrazole phosphate (DMPP) mitigating NO emissions. *Scientific Reports*, **2019**, 9, 2346	4.9	15
21	Biochar research activities and their relation to development and environmental quality. A meta-analysis. *Agronomy for Sustainable Development*, **2017**, 37, 1	6.8	13
20	Biochars from Mediterranean Agroindustry Residues: Physicochemical Properties Relevant for C Sequestration and Soil Water Retention. *ACS Sustainable Chemistry and Engineering*, **2019**, 7, 4724-4733	8.3	12
19	Relationships between emitted volatile organic compounds and their concentration in the pile during municipal solid waste composting. *Waste Management*, **2018**, 79, 179-187	8.6	11

18	Suitability of Different Agricultural and Urban Organic Wastes as Feedstocks for the Production of Biochar Part 1: Physicochemical Characterisation. *Sustainability*, **2018**, 10, 2265	3.6	11
17	Linking biochars properties to their capacity to modify aerobic CH4 oxidation in an upland agricultural soil. *Geoderma*, **2020**, 363, 114179	6.7	10
16	Greenhouse Gas from Organic Waste Composting: Emissions and Measurement. *Environmental Chemistry for A Sustainable World*, **2015**, 33-70	0.8	9
15	Suitability of Different Agricultural and Urban Organic Wastes as Feedstocks for the Production of Biochar Part 2: Agronomical Evaluation as Soil Amendment. *Sustainability*, **2018**, 10, 2077	3.6	8
14	Compost biochemical quality mediates nitrogen leaching loss in a greenhouse soil under vegetable cultivation. *Geoderma*, **2020**, 358, 113984	6.7	8
13	N2O emissions during Brassica oleracea cultivation: Interaction of biochar with mineral and organic fertilization. *European Journal of Agronomy*, **2020**, 115, 126021	5	7
12	Biochar for Climate Change Mitigation **2018**, 219-248		6
11	Tracking C and N dynamics and stabilization in soil amended with wheat residue and its corresponding bioethanol by-product: a 13C/15N study. *GCB Bioenergy*, **2014**, 6, 499-508	5.6	5
10	Olive tree pruning derived biochar increases glucosinolate concentrations in broccoli. *Scientia Horticulturae*, **2020**, 267, 109329	4.1	4
9	Nitrogen dynamics in cropping systems under Mediterranean climate: a systemic analysis. *Environmental Research Letters*, **2021**, 16, 073002	6.2	4
8	Soil C Storage Potential of Exogenous Organic Matter at Regional Level (Italy) Under Climate Change Simulated by RothC Model Modified for Amended Soils. *Frontiers in Environmental Science*, **2018**, 6,	4.8	4
7	Biochar as electron donor for reduction of N2O by Paracoccus denitrificans. *FEMS Microbiology Ecology*, **2020**, 96,	4.3	3
6	Influence of Pyrolyzed Grape-Seeds/Sewage Sludge Blends on the Availability of P, Fe, Cu, As and Cd to Maize. *Agronomy*, **2019**, 9, 406	3.6	3
5	Carbon mineralization dynamics in soils amended with meat meals under laboratory conditions. *Waste Management*, **2008**, 28, 707-15	8.6	3
4	Biochar Improves the Properties of Poultry Manure Compost as Growing Media for Rosemary Production. *Agronomy*, **2020**, 10, 261	3.6	3
3	Overcoming biochar limitations to remediate pentachlorophenol in soil by modifying its electrochemical properties. *Journal of Hazardous Materials*, **2021**, 426, 127805	12.8	1
2	Paracetamol degradation pathways in soil after biochar addition. *Environmental Pollution*, **2022**, 119546	9.3	0
1	Biochar as an additive in composting: impact on process performance and on the agronomical quality of the end product. *Acta Horticulturae*, **2021**, 175-188	0.3	