Maria Pilar Bernal

List of Publications by Year
in descending order

110 papers	10,441 citations	44042 48 h-index	32815 100 g-index
111 all docs	111 docs citations	111 times ranked	8618 citing authors

#	Article	IF	Citations
1	Composting of animal manures and chemical criteria for compost maturity assessment. A review. Bioresource Technology, 2009, 100, 5444-5453.	4.8	1,685
2	Nitrogen transformation during organic waste composting by the Rutgers system and its effects on pH, EC and maturity of the composting mixtures. Bioresource Technology, 2001, 78, 301-308.	4.8	459
3	Contrasting effects of manure and compost on soil pH, heavy metal availability and growth of Chenopodium album L. in a soil contaminated by pyritic mine waste. Chemosphere, 2004, 57, 215-224.	4.2	403
4	Assessment of the fertiliser potential of digestates from farm and agroindustrial residues. Biomass and Bioenergy, 2012, 40, 181-189.	2.9	381
5	A plant genetically modified that accumulates Pb is especially promising for phytoremediation. Biochemical and Biophysical Research Communications, 2003, 303, 440-445.	1.0	345
6	Trace element behaviour at the rootâ€“soil interface: Implications in phytoremediation. Environmental and Experimental Botany, 2009, 67, 243-259.	2.0	340
7	Carbon mineralization from organic wastes at different composting stages during their incubation with soil. Agriculture, Ecosystems and Environment, 1998, 69, 175-189.	2.5	294
8	Agricultural use of digestate for horticultural crop production and improvement of soil properties. European Journal of Agronomy, 2012, 43, 119-128.	1.9	250
9	Characterization of olive mill wastewater (alpechin) and its sludge for agricultural purposes. Bioresource Technology, 1999, 67, 111-115.	4.8	246
10	Bio-degradation of olive mill wastewater sludge by its co-composting with agricultural wastes. Bioresource Technology, 2002, 85, 1-8.	4.8	234
11	Co-composting of distillery wastes with animal manures: Carbon and nitrogen transformations in the evaluation of compost stability. Chemosphere, 2008, 72, 551-557.	4.2	231
12	Uptake of heavy metals and As by Brassica juncea grown in a contaminated soil in AznalcÃ³llar (Spain): The effect of soil amendments. Environmental Pollution, 2005, 138, 46-58.	3.7	225
13	Recycling of livestock manure in a whole-farm perspective. Livestock Science, 2007, 112, 180-191.	0.6	220
14	Chemical properties of anaerobic digestates affecting C and N dynamics in amended soils. Agriculture, Ecosystems and Environment, 2012, 160, 15-22.	2.5	201
15	Fractionation of heavy metals and distribution of organic carbon in two contaminated soils amended with humic acids. Chemosphere, 2006, 64, 1264-1273.	4.2	182
16	The effects of olive mill waste compost and poultry manure on the availability and plant uptake of nutrients in a highly saline soil. Bioresource Technology, 2008, 99, 396-403.	4.8	175
17	Influence of sewage sludge compost stability and maturity on carbon and nitrogen mineralization in soil. Soil Biology and Biochemistry, 1998, 30, 305-313.	4.2	166
18	Relationships between water-soluble carbohydrate and phenol fractions and the humification indices of different organic wastes during composting. Bioresource Technology, 1999, 70, 193-201.	4.8	163

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19	Natural zeolites and sepiolite as ammonium and ammonia adsorbent materials. Bioresource Technology, 1993, 43, 27-33.	4.8	159
20	Heavy metals fractionation and organic matter mineralisation in contaminated calcareous soil amended with organic materials. Bioresource Technology, 2006, 97, 1894-1901.	4.8	155
21	Current Approaches and Future Trends in Compost Quality Criteria for Agronomic, Environmental, and Human Health Benefits. Advances in Agronomy, 2017, 144, 143-233.	2.4	153
22	Co-composting of the solid fraction of anaerobic digestates, to obtain added-value materials for use in agriculture. Biomass and Bioenergy, 2012, 43, 26-35.	2.9	150
23	Recycling of anaerobic digestates by composting: effect of the bulking agent used. Journal of Cleaner Production, 2013, 47, 61-69.	4.6	141
24	Utilisation of manure composts by high-value crops: Safety and environmental challenges. Bioresource Technology, 2009, 100, 5454-5460.	4.8	130
25	A remediation strategy based on active phytoremediation followed by natural attenuation in a soil contaminated by pyrite waste. Environmental Pollution, 2006, 143, 397-406.	3.7	125
26	The use of a halophytic plant species and organic amendments for the remediation of a trace elements-contaminated soil under semi-arid conditions. Journal of Hazardous Materials, 2012, 223-224, 63-71.	6.5	124
27	An engineered plant that accumulates higher levels of heavy metals than Thlaspi caerulescens, with yields of 100 times more biomass in mine soils. Chemosphere, 2006, 64, 478-485.	4.2	121
28	Influence of olive mill wastewater in composting and impact of the compost on a Swiss chard crop and soil properties. Environment International, 2005, 31, 305-312.	4.8	114
29	Tolerance and accumulation of heavy metals by Brassicaceae species grown in contaminated soils from Mediterranean regions of Spain. Environmental and Experimental Botany, 2006, 56, 19-27.	2.0	110
30	Evaluation of the phytostabilisation efficiency in a trace elements contaminated soil using soil health indicators. Journal of Hazardous Materials, 2014, 268, 68-76.	6.5	101
31	Effects of compost, pig slurry and lime on trace element solubility and toxicity in two soils differently affected by mining activities. Chemosphere, 2011, 84, 642-650.	4.2	98
32	An automatic microanalysis method for the determination of organic carbon in wastes. Communications in Soil Science and Plant Analysis, 1991, 22, 2137-2144.	0.6	96
33	A field experiment investigating the effects of olive husk and cow manure on heavy metal availability in a contaminated calcareous soil from Murcia (Spain). Agriculture, Ecosystems and Environment, 2007, 118, 319-326.	2.5	96
34	Arsenic(V) adsorption-desorption in agricultural and mine soils: Effects of organic matter addition and phosphate competition. Environmental Pollution, 2016, 216, 71-79.	3.7	93
35	Gaseous emissions and process development during composting of pig slurry: the influence of the proportion of cotton gin waste. Journal of Cleaner Production, 2016, 112, 81-90.	4.6	85
36	Impact of fresh and composted solid olive husk and their water-soluble fractions on soil heavy metal fractionation; microbial biomass and plant uptake. Journal of Hazardous Materials, 2011, 186, 1283-1289.	6.5	82

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37	Soil C and N mineralisation and agricultural value of the products of an anaerobic digestion system. Biology and Fertility of Soils, 2013, 49, 313-322.	2.3	80
38	Effects of olive mill wastewater addition in composting of agroindustrial and urban wastes. Biodegradation, 2001, 12, 225-234.	1.5	75
39	Use of olive mill wastewater compost for crop production. International Biodeterioration and Biodegradation, 1996, 38, 193-203.	1.9	74
40	Food byproducts as amendments in trace elements contaminated soils. Food Research International, 2015, 73, 176-189.	2.9	73
41	Application of natural zeolites for the reduction of ammonia emissions during the composting of organic wastes in a laboratory composting simulator. Bioresource Technology, 1993, 43, 35-39.	4.8	72
42	Improvement of soil quality after â€œalperujoâ€•compost application to two contaminated soils characterised by differing heavy metal solubility. Journal of Environmental Management, 2011, 92, 733-741.	3.8	63
43	Efficiency of soil organic and inorganic amendments on the remediation of a contaminated mine soil: I. Effects on trace elements and nutrients solubility and leaching risk. Chemosphere, 2014, 107, 121-128.	4.2	63
44	Stakeholder perceptions of manure treatment technologies in Denmark, Italy, the Netherlands and Spain. Journal of Cleaner Production, 2018, 172, 1620-1630.	4.6	61
45	Organic waste treatment and C stabilization efficiency. Soil Biology and Biochemistry, 1997, 29, 1747-1753.	4.2	57
46	Chemical and biological properties in the rhizosphere of Lupinus albus alter soil heavy metal fractionation. Ecotoxicology and Environmental Safety, 2010, 73, 595-602.	2.9	56
47	Effects of Nano-maghemite on Trace Element Accumulation and Drought Response of Helianthus annuus L. in a Contaminated Mine Soil. Water, Air, and Soil Pollution, 2015, 226, 1.	1.1	56
48	Composting Olive Mill Waste and Sheep Manure For Orchard Use. Compost Science and Utilization, 2004, 12, 130-136.	1.2	52
49	Organic Matter Fractions Involved in Degradation and Humification Processes During Composting. Compost Science and Utilization, 2005, 13, 127-135.	1.2	51
50	Metal Availability and Chemical Properties in the Rhizosphere of Lupinus albus L. Growing in a High-Metal Calcareous Soil. Water, Air, and Soil Pollution, 2009, 201, 283-293.	1.1	43
51	Substitution of Peat in Horticultural Seedlings: Suitability of Digestate-Derived Compost from Cattle Manure and Maize Silage Codigestion. Communications in Soil Science and Plant Analysis, 2013, 44, 668-677.	0.6	43
52	The use of olive-mill waste compost to promote the plant vegetation cover in a trace-element-contaminated soil. Environmental Science and Pollution Research, 2014, 21, 1029-1038.	2.7	43
53	Efficiency of soil organic and inorganic amendments on the remediation of a contaminated mine soil: II. Biological and ecotoxicological evaluation. Chemosphere, 2014, 107, 101-108.	4.2	41
54	Phytostabilisation of severely contaminated mine tailings using halophytes and field addition of organic and inorganic amendments. Chemosphere, 2017, 178, 556-564.	4.2	40

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55	Assessment of Heavy Metal Bioavailability in Contaminated Soils from a Former Mining Area (La Union,) Tj ETQq1 1 0.784314 rgBT /O	1.1	39
56	Influence of the bulking agent on the degradation of olive-mill wastewater sludge during composting. International Biodeterioration and Biodegradation, 1996, 38, 205-210.	1.9	38
57	Seed Priming of Trifolium repens L. Improved Germination and Early Seedling Growth on Heavy Metal-Contaminated Soil. Water, Air, and Soil Pollution, 2014, 225, 1.	1.1	38
58	Combination of soil organic and inorganic amendments helps plants overcome trace element induced oxidative stress and allows phytostabilisation. Chemosphere, 2019, 223, 223-231.	4.2	36
59	The Effects of Copper and Lead on Growth and Zinc Accumulation of Thlaspi Caerulescens J. and C. Presl: Implications for Phytoremediation of Contaminated Soils. Water, Air, and Soil Pollution, 2004, 151, 361-372.	1.1	34
60	Effect of initial material bulk density and easily-degraded organic matter content on temperature changes during composting of cucumber stalk. Journal of Environmental Sciences, 2019, 80, 306-315.	3.2	32
61	Co-composting of distillery and winery wastes with sewage sludge. Water Science and Technology, 2007, 56, 187-192.	1.2	31
62	Changes in Microbial Biomass Parameters of a Heavy Metal-Contaminated Calcareous Soil during a Field Remediation Experiment. Journal of Environmental Quality, 2007, 36, 1137-1144.	1.0	29
63	Changes in metal speciation and pH in olive processing waste and sulphur-treated contaminated soil. Ecotoxicology and Environmental Safety, 2008, 70, 207-215.	2.9	29
64	Assessment of the environmental risks associated with two mine tailing soils from the La UniÃ³n-Cartagena (Spain) mining district. Journal of Geochemical Exploration, 2014, 147, 98-106.	1.5	29
65	Fertilizer value and greenhouse gas emissions from solid fraction pig slurry compost pellets. Journal of Agricultural Science, 2017, 155, 1646-1658.	0.6	29
66	Changes in the heavy metal solubility of two contaminated soils after heavy metals phytoextraction with Noccaea caerulescens. Ecological Engineering, 2016, 89, 56-63.	1.6	28
67	Evaluation of the slurry management strategy and the integration of the composting technology in a pig farm â€“ Agronomical and environmental implications. Journal of Environmental Management, 2017, 192, 57-67.	3.8	28
68	Energy production potential of phytoremediation plant biomass: Helianthus annuus and Silybum marianum. Industrial Crops and Products, 2019, 135, 206-216.	2.5	28
69	Biochar improves agro-environmental aspects of pig slurry compost as a substrate for crops with energy and remediation uses. Industrial Crops and Products, 2016, 94, 97-106.	2.5	27
70	Effects of the application of pig slurry on some physico-chemical and physical properties of calcareous soils. Bioresource Technology, 1992, 42, 233-239.	4.8	26
71	Comparison of compost and humic fertiliser effects on growth and trace elements accumulation of native plant species in a mine soil phytorestoration experiment. Ecological Engineering, 2014, 73, 588-597.	1.6	26
72	Arsenic adsorption and plant availability in an agricultural soil irrigated with As-rich water: Effects of Fe-rich amendments and organic and inorganic fertilisers. Journal of Environmental Management, 2018, 209, 262-272.	3.8	26

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73	Copper binding by olive mill solid waste and its organic matter fractions. Geoderma, 2009, 149, 272-279.	2.3	25
74	Optimization of pig slurry application to heavy metal polluted soils monitoring nitrification processes. Chemosphere, 2010, 81, 603-610.	4.2	25
75	Implications of the Use of As-Rich Groundwater for Agricultural Purposes and the Effects of Soil Amendments on As Solubility. Environmental Science & Technology, 2010, 44, 9463-9469.	4.6	25
76	Assessment of native shrubs for stabilisation of a trace elements-polluted soil as the final phase of a restoration process. Agriculture, Ecosystems and Environment, 2014, 196, 103-111.	2.5	24
77	Maghemite nanoparticles and ferrous sulfate for the stimulation of iron plaque formation and arsenic immobilization in Phragmites australis. Environmental Pollution, 2016, 219, 296-304.	3.7	24
78	Carbon mineralisation and plant growth in soil amended with compost samples at different degrees of maturity. Waste Management and Research, 2003, 21, 161-171.	2.2	23
79	Responses of Noccaea caerulescens and Lupinus albus in trace elements-contaminated soils. Plant Physiology and Biochemistry, 2013, 66, 47-55.	2.8	23
80	Grand Challenges in Waste Management in Agroecosystems. Frontiers in Sustainable Food Systems, 2017, 1, .	1.8	23
81	Feasibility of arsenic phytostabilisation using Mediterranean shrubs: impact of root mineralisation on As availability in soils. Journal of Environmental Monitoring, 2009, 11, 1375.	2.1	20
82	Plant Mineral Nutrition and Growth in a Saline Mediterranean Soil Amended with Organic Wastes. Communications in Soil Science and Plant Analysis, 2005, 35, 2495-2514.	0.6	19
83	The Influence of Heavy Metals and Mineral Nutrient Supply on Bituminaria bituminosa. Water, Air, and Soil Pollution, 2007, 184, 335-345.	1.1	19
84	Contribution of heavy metals and As-loaded lupin root mineralization to the availability of the pollutants in multi-contaminated soils. Environmental Pollution, 2008, 152, 373-379.	3.7	18
85	Strategies for the use of plant biomass obtained in the phytostabilisation of trace-element-contaminated soils. Biomass and Bioenergy, 2019, 126, 220-230.	2.9	18
86	Use of livestock waste composts as nursery growing media: Effect of a washing pre-treatment. Scientia Horticulturae, 2021, 281, 109954.	1.7	18
87	Thermal and spectroscopic analysis of organic matter degradation and humification during composting of pig slurry in different scenarios. Environmental Science and Pollution Research, 2016, 23, 17357-17369.	2.7	17
88	Response of Piptatherum miliaceum to co-culture with a legume species for the phytostabilisation of trace elements contaminated soils. Journal of Soils and Sediments, 2017, 17, 1349-1357.	1.5	17
89	Treatment of swine manure: case studies in Europeanâ€™s N-surplus areas. Scientia Agricola, 2016, 73, 444-454.	0.6	14
90	Integrating Anaerobic Digestion of Pig Slurry and Thermal Valorisation of Biomass. Waste and Biomass Valorization, 2020, 11, 6125-6137.	1.8	14

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91	Livestock waste treatment systems of the future: A challenge to environmental quality, food safety, and sustainability. OECD Workshop. Bioresource Technology, 2009, 100, 5371-5373.	4.8	13
92	Carbon and nitrogen mineralization in soil amended with phenanthrene, anthracene and irradiated sewage sludge. Bioresource Technology, 2002, 85, 217-223.	4.8	12
93	Major As species, lipid peroxidation and protein carbonylation in rice plants exposed to increasing As(V) concentrations. Heliyon, 2020, 6, e04703.	1.4	12
94	Selection of Mediterranean plants biomass for the composting of pig slurry solids based on the heat production during aerobic degradation. Waste Management, 2020, 104, 1-8.	3.7	12
95	Alleviation of environmental risks associated with severely contaminated mine tailings using amendments: Modeling of trace element speciation, solubility, and plant accumulation. Environmental Toxicology and Chemistry, 2016, 35, 2874-2884.	2.2	10
96	Composts Produced From Pig Slurry Solids: Nutrient Efficiency and N-Leaching Risks in Amended Soils. Frontiers in Sustainable Food Systems, 2018, 2, .	1.8	10
97	Carbon conservation strategy for the management of pig slurry by composting: Initial study of the bulking agent influence. Mitigation and Adaptation Strategies for Global Change, 2016, 21, 1093-1105.	1.0	9
98	Nanoscale Zero-Valent Iron Has Minimum Toxicological Risk on the Germination and Early Growth of Two Grass Species with Potential for Phytostabilization. Nanomaterials, 2020, 10, 1537.	1.9	9
99	Integrated Waste Management Combining Anaerobic and Aerobic Treatment: A Case Study. Waste and Biomass Valorization, 2014, 5, 481-490.	1.8	8
100	Potential of the Biomass of Plants Grown in Trace Element-Contaminated Soils under Mediterranean Climatic Conditions for Bioenergy Production. Agronomy, 2021, 11, 1750.	1.3	8
101	Effect of pig slurry additions on the organic carbon of calcareous soils. Bioresource Technology, 1991, 37, 223-228.	4.8	7
102	Efficiency of a phytoimmobilisation strategy for heavy metal contaminated soils using white lupin. Journal of Geochemical Exploration, 2012, 123, 95-100.	1.5	7
103	Extractability, Distribution Among Different Particle Size Fractions, and Phytotoxicity of Cu and Zn in Composts Made With the Separated Solid Fraction of Pig Slurry. Frontiers in Sustainable Food Systems, 2020, 4, .	1.8	6
104	Differential response of Oryza sativa L. and Phragmites australis L. plants in trace elements contaminated soils under flooded and unflooded conditions. Environmental Geochemistry and Health, 2022, 44, 99-115.	1.8	6
105	Managing organic amendments in agroecosystems to enhance soil carbon storage and mitigate climate change. , 2020, , 89-141.		5
106	Response of Phragmites australis to increasing As(V) concentrations: Accumulation and speciation of As, and plant oxidative stress. Chemosphere, 2022, 302, 134937.	4.2	4
107	Effects of heat on the alkali extraction of humic substances from peat. Communications in Soil Science and Plant Analysis, 1994, 25, 2685-2695.	0.6	2
108	Interactions between the Hyperaccumulator Noccaea caerulescens and Brassica juncea or Lupinus albus for Phytoextraction. Agronomy, 2020, 10, 1367.	1.3	2

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109	COMPOSTING OF THE SOLID FRACTION OF OLIVE MILL WASTEWATER. Acta Horticulturae, 2001, , 19-28.	0.1	0
110	Recycling of nutrients from organic wastes and treatment options. RAMIRANâ€™04. Bioresource Technology, 2007, 98, 3181-3183.	4.8	0