Jorge Mataix-Solera

List of Publications by Year
in descending order

101 papers	6,574 citations	61857 43 h-index	69108 77 g-index
113 all docs	113 docs citations	113 times ranked	5726 citing authors

#	Article	IF	Citations
1	The interdisciplinary nature of <i>SOIL</i>. Soil, 2015, 1, 117-129.	2.2	494
2	Fire effects on soil aggregation: A review. Earth-Science Reviews, 2011, 109, 44-60.	4.0	471
3	Wildland fire ash: Production, composition and eco-hydro-geomorphic effects. Earth-Science Reviews, 2014, 130, 103-127.	4.0	434
4	Hydrophobicity and aggregate stability in calcareous topsoils from fire-affected pine forests in southeastern Spain. Geoderma, 2004, 118, 77-88.	2.3	286
5	Near infrared spectroscopy for determination of various physical, chemical and biochemical properties in Mediterranean soils. Soil Biology and Biochemistry, 2008, 40, 1923-1930.	4.2	238
6	Soil microbial biomass and activity under different agricultural management systems in a semiarid Mediterranean agroecosystem. Soil and Tillage Research, 2010, 109, 110-115.	2.6	198
7	Effects of agricultural management on surface soil properties and soilâ€“water losses in eastern Spain. Soil and Tillage Research, 2009, 106, 117-123.	2.6	181
8	Factors controlling the aggregate stability and bulk density in two different degraded soils amended with biosolids. Soil and Tillage Research, 2005, 82, 65-76.	2.6	152
9	Soil structural stability and erosion rates influenced by agricultural management practices in a semiâ€arid Mediterranean agroâ€ecosystem. Soil Use and Management, 2012, 28, 571-579.	2.6	133
10	The wettability of ash from burned vegetation and its relationship to Mediterranean plant species type, burn severity and total organic carbon content. Geoderma, 2011, 160, 599-607.	2.3	127
11	Changes in soil microbial community structure following the abandonment of agricultural terraces in mountainous areas of Eastern Spain. Applied Soil Ecology, 2009, 42, 315-323.	2.1	122
12	Water repellency under different plant species in a calcareous forest soil in a semiarid Mediterranean environment. Hydrological Processes, 2007, 21, 2300-2309.	1.1	104
13	Soil microbial recolonisation after a fire in a Mediterranean forest. Biology and Fertility of Soils, 2011, 47, 261-272.	2.3	103
14	Assessing air-drying and rewetting pre-treatment effect on some soil enzyme activities under Mediterranean conditions. Soil Biology and Biochemistry, 2006, 38, 2125-2134.	4.2	99
15	Short-term effects of experimental fire for a soil under eucalyptus forest (SE Australia). Geoderma, 2011, 167-168, 125-134.	2.3	99
16	Modelling the Impacts of Wildfire on Ash Thickness in a Shortâ€Term Period. Land Degradation and Development, 2015, 26, 180-192.	1.8	94
17	Algae influence the hydrophysical parameters of a sandy soil. Catena, 2013, 108, 58-68.	2.2	93
18	Hydrological effects of a layer of vegetation ash on underlying wettable and water repellent soil. Geoderma, 2012, 191, 14-23.	2.3	92

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19	Effect of fire severity on water repellency and aggregate stability on Mexican volcanic soils. Catena, 2011, 84, 136-147.	2.2	90
20	Immediate effects of wildfires on water repellency and aggregate stability in Mediterranean calcareous soils. Catena, 2008, 74, 219-226.	2.2	88
21	Effects of a low severity prescribed fire on water-soluble elements in ash from a cork oak (Quercus) Tj ETQq1 1 0.784314 rgBT /Overlock 237-247.	3.7	84
22	Microbial recolonization and chemical changes in a soil heated at different temperatures. International Journal of Wildland Fire, 2005, 14, 385.	1.0	82
23	Soil organic matter and aggregates affected by wildfire in a Pinus halepensis forest in a Mediterranean environment. International Journal of Wildland Fire, 2002, 11, 107.	1.0	81
24	Spatial models for monitoring the spatio-temporal evolution of ashes after fire â€“ a case study of a burnt grassland in Lithuania. Solid Earth, 2013, 4, 153-165.	1.2	78
25	Thermal destruction of soil water repellency and associated changes to soil organic matter as observed by FTIR spectroscopy. Catena, 2008, 74, 205-211.	2.2	76
26	Short-term effects of treated wastewater irrigation on Mediterranean calcareous soil. Soil and Tillage Research, 2011, 112, 18-26.	2.6	73
27	Wildfire effects on extractable elements in ash from a Pinus pinaster forest in Portugal. Hydrological Processes, 2014, 28, 3681-3690.	1.1	72
28	Biological and chemical factors controlling the patchy distribution of soil water repellency among plant species in a Mediterranean semiarid forest. Geoderma, 2013, 207-208, 212-220.	2.3	70
29	Threshold water content beyond which hydrophobic soils become hydrophilic: The role of soil texture and organic matter content. Geoderma, 2013, 209-210, 177-187.	2.3	70
30	FT-IR spectroscopy reveals that ash water repellency is highly dependent on ash chemical composition. Catena, 2013, 108, 35-43.	2.2	68
31	Soil water repellency: Origin, assessment and geomorphological consequences. Catena, 2013, 108, 1-5.	2.2	66
32	Reclamation of a burned forest soil with municipal waste compost: macronutrient dynamic and improved vegetation cover recovery. Bioresource Technology, 2001, 76, 221-227.	4.8	65
33	Evaluation of soil quality using multiple lineal regression based on physical, chemical and biochemical properties. Science of the Total Environment, 2007, 378, 233-237.	3.9	65
34	Can occurrence of soil hydrophobicity promote the increase of aggregates stability?. Catena, 2013, 110, 24-31.	2.2	65
35	Effects of salvage logging on soil properties and vegetation recovery in a fire-affected Mediterranean forest: A two year monitoring research. Science of the Total Environment, 2017, 586, 1057-1065.	3.9	64
36	Forest Fire Effects on Soil Microbiology. , 2009, , 133-175.		61

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37	Evaluation of different clay minerals as additives for soil water repellency alleviation. Applied Clay Science, 2006, 31, 238-248.	2.6	59
38	Shortâ€Term Vegetation Recovery after a Grassland Fire in Lithuania: The Effects of Fire Severity, Slope Position and Aspect. Land Degradation and Development, 2016, 27, 1523-1534.	1.8	57
39	Factors controlling the water repellency induced by fire in calcareous Mediterranean forest soils. European Journal of Soil Science, 2007, 58, 1254-1259.	1.8	56
40	Spatial and temporal variations of water repellency and probability of its occurrence in calcareous Mediterranean rangeland soils affected by fires. Catena, 2013, 108, 14-25.	2.2	56
41	Soil properties under natural forest in the Alicante Province of Spain. Geoderma, 2007, 142, 334-341.	2.3	55
42	Wildfire effects on the soil seed bank of a maritime pine stand â€" The importance of fire severity. Geoderma, 2012, 191, 80-88.	2.3	52
43	Assessing the effects of air-drying and rewetting pre-treatment on soil microbial biomass, basal respiration, metabolic quotient and soluble carbon under Mediterranean conditions. European Journal of Soil Biology, 2007, 43, 120-129.	1.4	48
44	Soil properties as key factors controlling water repellency in fire-affected areas: Evidences from burned sites in Spain and Israel. Catena, 2013, 108, 6-13.	2.2	48
45	Different Patterns of Aggregate Stability in Burned and Restored Soils. Arid Land Research and Management, 2001, 15, 163-171.	0.6	47
46	Short-term changes in soil Munsell colour value, organic matter content and soil water repellency after a spring grassland fire in Lithuania. Solid Earth, 2014, 5, 209-225.	1.2	45
47	Can terra rossa become water repellent by burning? A laboratory approach. Geoderma, 2008, 147, 178-184.	2.3	43
48	Storage Effects on Biochemical Properties of Air-Dried Soil Samples from Southeastern Spain. Arid Land Research and Management, 2009, 23, 213-222.	0.6	43
49	Extent and persistence of soil water repellency induced by pines in different geographic regions. Journal of Hydrology and Hydromechanics, 2018, 66, 360-368.	0.7	43
50	Application of Thermal Analysis to Elucidate Waterâ€Repellency Changes in Heated Soils. Soil Science Society of America Journal, 2008, 72, 1-10.	1.2	42
51	Geostatistical methods to identify and map spatial variations of soil salinity. Journal of Geochemical Exploration, 2011, 108, 62-72.	1.5	42
52	Validating the effectiveness and sensitivity of two soil quality indices based on natural forest soils under Mediterranean conditions. Soil Biology and Biochemistry, 2008, 40, 2079-2087.	4.2	39
53	Impact of an intense rainfall event on soil properties following a wildfire in a Mediterranean environment (North-East Spain). Science of the Total Environment, 2016, 572, 1353-1362.	3.9	39
54	Assessment of promising agricultural management practices. Science of the Total Environment, 2019, 649, 610-619.	3.9	38

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55	Water repellency as conditioned by particle size and drying in hydrophobized sand. Geoderma, 2013, 209-210, 31-40.	2.3	37
56	Near-Infrared Spectroscopy to Estimate the Maximum Temperatures Reached on Burned Soils. Soil Science Society of America Journal, 2007, 71, 1029-1037.	1.2	36
57	Application of minidisk infiltrometer to estimate water repellency in Mediterranean pine forest soils. Journal of Hydrology and Hydromechanics, 2017, 65, 254-263.	0.7	35
58	Temporal characterisation of soil-plant natural recovery related to fire severity in burned Pinus halepensis Mill. forests. Science of the Total Environment, 2018, 640-641, 42-51.	3.9	35
59	Long-term changes in soil aggregation comparing forest and agricultural land use in different Mediterranean soil types. Geoderma, 2014, 235-236, 290-299.	2.3	32
60	Temporal changes in soil water repellency after a forest fire in a Mediterranean calcareous soil: Influence of ash and different vegetation type. Science of the Total Environment, 2016, 572, 1252-1260.	3.9	32
61	Influence of plant species on physical, chemical and biological soil properties in a Mediterranean forest soil. European Journal of Forest Research, 2010, 129, 15-24.	1.1	31
62	Application of soil quality indices to assess the status of agricultural soils irrigated with treated wastewaters. Solid Earth, 2013, 4, 119-127.	1.2	31
63	The burn severity and plant recovery relationship affect the biological and chemical soil properties of Pinus halepensis Mill. stands in the short and mid-terms after wildfire. Journal of Environmental Management, 2019, 235, 250-256.	3.8	31
64	Effect of solid waste compost on microbiological and physical properties of a burnt forest soil in field experiments. Biology and Fertility of Soils, 2000, 32, 410-414.	2.3	30
65	Relationships between soil water repellency and microbial community composition under different plant species in a Mediterranean semiarid forest. Journal of Hydrology and Hydromechanics, 2014, 62, 101-107.	0.7	30
66	The role of mosses in soil stability, fertility and microbiology six years after a post-fire salvage logging management. Journal of Environmental Management, 2020, 262, 110287.	3.8	30
67	Natural soil water repellency in different types of Mediterranean woodlands. Geoderma, 2014, 226-227, 170-178.	2.3	26
68	Mobility of cadmium, chromium, and nickel through the profile of a calcisol treated with sewage sludge in the southeast of Spain. Environmental Geology, 2003, 44, 545-553.	1.2	25
69	Fire in Protected Areas - the Effect of Protection and Importance of Fire Management. Environmental Research, Engineering and Management, 2012, 59, .	0.4	22
70	Advances in the knowledge of how heating can affect aggregate stability in Mediterranean soils: a XDR and SEM-EDX approach. Catena, 2016, 147, 315-324.	2.2	21
71	Alternative analysis of transient infiltration experiment to estimate soil water repellency. Hydrological Processes, 2019, 33, 661-674.	1.1	20
72	Longevity of soil water repellency in a former wastewater disposal tree stand and potential amelioration. Geoderma, 2011, 165, 78-83.	2.3	19

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73	How clear-cutting affects fire severity and soil properties in a Mediterranean ecosystem. Journal of Environmental Management, 2018, 206, 625-632.	3.8	19
74	Visual assessment of the impact of agricultural management practices on soil quality. Agronomy Journal, 2020, 112, 2608-2623.	0.9	19
75	Comparison of Soil Physical, Chemical, and Biochemical Properties Among Native Forest, Maintained and Abandoned Almond Orchards in Mountainous Areas of Eastern Spain. Arid Land Research and Management, 2009, 23, 267-282.	0.6	18
76	Plant community influence on soil microbial response after a wildfire in Sierra Nevada National Park (Spain). Science of the Total Environment, 2016, 573, 1265-1274.	3.9	18
77	Small variations of soil properties control fire-induced water repellency .. Spanish Journal of Soil Science, 0, 4, .	0.0	18
78	Soil hydro-physical changes in natural grassland of southern Brazil subjected to burning management. Soil Research, 2012, 50, 465.	0.6	17
79	The impact of post-fire salvage logging on microbial nitrogen cyclers in Mediterranean forest soil. Science of the Total Environment, 2018, 619-620, 1079-1087.	3.9	17
80	The presence of ash as an interference factor in the estimation of the maximum temperature reached in burned soils using near-infrared spectroscopy (NIR). Catena, 2008, 74, 177-184.	2.2	16
81	Organic matter and wettability characteristics of wildfire ash from Mediterranean conifer forests. Catena, 2015, 135, 369-376.	2.2	16
82	Efectos de los incendios forestales en la vegetaciÃ³n y el suelo en la cuenca mediterrÃ¡nea: revisiÃ³n bibliogrÃ¡fica. Boletin De La Asociacion De Geografos Espanoles, 2012, , .	0.2	16
83	Spatio-temporal Vegetation Recuperation after a Grassland Fire in Lithuania. Procedia Environmental Sciences, 2013, 19, 856-864.	1.3	14
84	Effects of relative humidity on the water repellency of fire-affected soils. Catena, 2016, 138, 68-76.	2.2	14
85	Environmental evaluation of sewage sludge application to reclaim limestone quarries wastes as soil amendments. Soil Biology and Biochemistry, 2007, 39, 1328-1332.	4.2	13
86	Effect of irrigation on the survival of total coliforms in three semiarid soils after amendment with sewage sludge. Waste Management, 2007, 27, 1815-1819.	3.7	12
87	Estimation of the maximum temperature reached in burned soils using near-infrared spectroscopy: Effects of soil sample pre-treatments. Geoderma, 2010, 158, 85-92.	2.3	12
88	Soil profile improvement as a by-product of gully stabilization measures. Catena, 2012, 92, 155-161.	2.2	12
89	Sensitivity of glomalin-related soil protein to wildfires: Immediate and medium-term changes. Science of the Total Environment, 2016, 572, 1238-1243.	3.9	11
90	Salvage logging alters microbial community structure and functioning after a wildfire in a Mediterranean forest. Applied Soil Ecology, 2021, 168, 104130.	2.1	11

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91	Glomalinâ€related Soil Protein Response to Heating Temperature: A Laboratory Approach. Land Degradation and Development, 2016, 27, 1432-1439.	1.8	10
92	Assessing the microbiological, biochemical, soil-physical and hydrological effects of amelioration of degraded soils in semiarid Spain. Biologia (Poland), 2007, 62, 542-546.	0.8	9
93	Repelencia al agua en suelos forestales afectados por incendios y en suelos agrÃcolas bajo distintos manejos y abandono. Cuadernos De Investigacion Geografica, 2012, 38, 53-74.	0.6	9
94	Fire effects on soil properties: A key issue in forest ecosystems. Catena, 2008, 74, 175-176.	2.2	8
95	Manuring effects on visual soil quality indicators and soil organic matter content in different pedoclimatic zones in Europe and China. Soil and Tillage Research, 2021, 212, 105033.	2.6	8
96	A review of the world's soil museums and exhibitions. Advances in Agronomy, 2021, 166, 277-304.	2.4	6
97	Nutrients in a calcareous soil affected by Cadmium. Journal of Plant Nutrition, 1998, 21, 1933-1941.	0.9	5
98	Soil Vulnerability Indicators to Degradation by Wildfires in Torres del Paine National Park (Patagonia,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf	0.0	2
99	Effect of the application of two plant residues on the density and porosity of soils subjected to compaction. Spanish Journal of Soil Science, 0, 10, .	0.0	1
100	Grandes incendios forestales en EspaÃ±a y alteraciones de su rÃ©gimen en las Ãºltimas dÃ©cadas. , 2021, , 147-161.		1
101	Promising Agricultural Management Practices and Soil Threats in Europe and China. Innovations in Landscape Research, 2021, , 195-213.	0.2	0