Pires, Lf

List of Publications by Year
in descending order

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87 papers	2,020 citations	279798 23 h-index	276875 41 g-index
87 all docs	87 docs citations	87 times ranked	1894 citing authors

#	Article	IF	Citations
1	Evidence that high temperatures and intermediate relative humidity might favor the spread of COVID-19 in tropical climate: A case study for the most affected Brazilian cities. Science of the Total Environment, 2020, 729, 139090.	8.0	212
2	Soil structure changes induced by tillage systems. Soil and Tillage Research, 2017, 165, 66-79.	5.6	177
3	Micromorphological analysis to characterize structure modifications of soil samples submitted to wetting and drying cycles. Catena, 2008, 72, 297-304.	5.0	96
4	Management effects on nitrogen recovery in a sugarcane crop grown in Brazil. Geoderma, 2003, 116, 235-248.	5.1	82
5	Assessing the long-term effects of zero-tillage on the macroporosity of Brazilian soils using X-ray Computed Tomography. Geoderma, 2019, 337, 1126-1135.	5.1	77
6	X-ray microtomography analysis of soil pore structure dynamics under wetting and drying cycles. Geoderma, 2020, 362, 114103.	5.1	66
7	Twenty-five years of computed tomography in soil physics: A literature review of the Brazilian contribution. Soil and Tillage Research, 2010, 110, 197-210.	5.6	64
8	Gamma ray computed tomography to evaluate wetting/drying soil structure changes. Nuclear Instruments & Methods in Physics Research B, 2005, 229, 443-456.	1.4	55
9	3D analysis of the soil porous architecture under long term contrasting management systems by X-ray computed tomography. Soil and Tillage Research, 2019, 191, 197-206.	5.6	52
10	Assessment of soil structure repair due to wetting and drying cycles through 2D tomographic image analysis. Soil and Tillage Research, 2007, 94, 537-545.	5.6	51
11	Can we predict the occurrence of COVID-19 cases? Considerations using a simple model of growth. Science of the Total Environment, 2020, 728, 138834.	8.0	47
12	Soil water retention curve determined by gamma-ray beam attenuation. Soil and Tillage Research, 2005, 82, 89-97.	5.6	44
13	Soil bulk density evaluation by conventional and nuclear methods. Soil Research, 2005, 43, 97.	1.1	44
14	Soil porous system changes quantified by analyzing soil water retention curve modifications. Soil and Tillage Research, 2008, 100, 72-77.	5.6	44
15	X-ray computed tomography for assessing the effect of tillage systems on topsoil morphological attributes. Soil and Tillage Research, 2019, 189, 25-35.	5.6	44
16	Field spatial and temporal patterns of soil water content and bulk density changes. Scientia Agricola, 2006, 63, 55-64.	1.2	43
17	X-ray microtomography analysis of representative elementary volume (REV) of soil morphological and geometrical properties. Soil and Tillage Research, 2018, 182, 112-122.	5.6	42
18	X-ray microtomography analysis of lime application effects on soil porous system. Geoderma, 2018, 324, 119-130.	5.1	34

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19	Characterization of a Brazilian clayey soil submitted to conventional and no-tillage management practices using pore size distribution analysis. Soil and Tillage Research, 2011, 111, 175-179.	5.6	33
20	Lime application effects on soil aggregate properties: Use of the mean weight diameter and synchrotron-based X-ray Î¼CT techniques. Geoderma, 2019, 338, 585-596.	5.1	33
21	Estimating soil porosity and pore size distribution changes due to wetting-drying cycles by morphometric image analysis. Soil and Tillage Research, 2021, 205, 104814.	5.6	32
22	Soil analysis using nuclear techniques: A literature review of the gamma ray attenuation method. Soil and Tillage Research, 2018, 184, 216-234.	5.6	27
23	Damage to soil physical properties caused by soil sampler devices as assessed by gamma ray computed tomography. Soil Research, 2004, 42, 857.	1.1	25
24	Gamma-ray attenuation method as an efficient tool to investigate soil bulk density spatial variability. Annals of Nuclear Energy, 2009, 36, 1734-1739.	1.8	25
25	Lime effects in a no-tillage system on Inceptisols in Southern Brazil. Geoderma Regional, 2019, 16, e00206.	2.1	22
26	Software Image J to study soil pore distribution. Ciencia E Agrotecnologia, 2014, 38, 122-128.	1.5	21
27	Porosity distribution by computed tomography and its importance to characterize soil clod samples. Applied Radiation and Isotopes, 2014, 92, 37-45.	1.5	20
28	THREE DIMENSIONAL CHARACTERIZATION OF SOIL MACROPOROSITY BY X-RAY MICROTOMOGRAPHY. Revista Brasileira De Ciencia Do Solo, 2015, 39, 448-457.	1.3	20
29	Representative elementary area (REA) in soil bulk density measurements through gamma ray computed tomography. Soil and Tillage Research, 2012, 123, 43-49.	5.6	19
30	Morphological characterization of soil clay fraction in nanometric scale. Powder Technology, 2013, 241, 36-42.	4.2	19
31	Gamma-ray computed tomography to characterize soil surface sealing. Applied Radiation and Isotopes, 2002, 57, 375-380.	1.5	18
32	Gamma-ray-computed tomography to investigate compaction on sewage-sludge-treated soil. Applied Radiation and Isotopes, 2003, 59, 17-25.	1.5	18
33	Application of Î³-ray computed tomography to analysis of soil structure before density evaluations. Applied Radiation and Isotopes, 2005, 63, 505-511.	1.5	18
34	Soil bulk density evaluated by gamma-ray attenuation: Analysis of system geometry. Soil and Tillage Research, 2013, 129, 23-31.	5.6	18
35	Pore system changes of damaged Brazilian oxisols and nitosols induced by wet-dry cycles as seen in 2-D micromorphologic image analysis. Anais Da Academia Brasileira De Ciencias, 2009, 81, 151-161.	0.8	17
36	Soil physico-hydrical properties resulting from the management in Integrated Production Systems. Revista Ciencia Agronomica, 2014, 45, 976-989.	0.3	17

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37	The effect of wetting and drying cycles on soil chemical composition and their impact on bulk density evaluation: An analysis by using XCOM data and gamma-ray computed tomography. Geoderma, 2014, 213, 512-520.	5.1	16
38	The use of gamma ray computed tomography to investigate soil compaction due to core sampling devices. Brazilian Journal of Physics, 2004, 34, 728-731.	1.4	15
39	Gamma-Ray Attenuation to Evaluate Soil Porosity: An Analysis of Methods. Scientific World Journal, The, 2014, 2014, 1-10.	2.1	15
40	Computed Tomography to Estimate the Representative Elementary Area for Soil Porosity Measurements. Scientific World Journal, The, 2012, 2012, 1-10.	2.1	14
41	Spatial variability of 7Be fallout for erosion evaluation. Radiation Physics and Chemistry, 2013, 83, 1-7.	2.8	14
42	Soil mass attenuation coefficient: Analysis and evaluation. Annals of Nuclear Energy, 2014, 64, 206-211.	1.8	13
43	Changes in the Structure of a Nigerian Soil under Different Land Management Practices. Revista Brasileira De Ciencia Do Solo, 2015, 39, 830-840.	1.3	13
44	Surface liming effects on soil radiation attenuation properties. Journal of Soils and Sediments, 2018, 18, 1641-1653.	3.0	13
45	Characterization of kaolinite in the hardsetting clay fraction using atomic force microscopy, X-ray diffraction, and the Rietveld method. Journal of Soils and Sediments, 2017, 17, 2144-2155.	3.0	12
46	An analysis of three XCT-based methods to determine the intrinsic permeability of soil aggregates. Journal of Hydrology, 2022, 612, 128024.	5.4	12
47	Mineralogical composition of hardsetting soils and its effect on the radiation attenuation characteristics. Journal of Soils and Sediments, 2016, 16, 1059-1068.	3.0	11
48	X-ray microtomography to evaluate the efficacy of paraffin wax coating for soil bulk density evaluation. Geoderma, 2019, 337, 935-944.	5.1	11
49	Surface and incorporated liming effects on clay dispersion, water availability, and aeration capacity of a Dystrudept soil. Bragantia, 2017, 76, 433-446.	1.3	10
50	Riparian forest potential to retain sediment and carbon evaluated by the 137Cs fallout and carbon isotopic ratio techniques. Anais Da Academia Brasileira De Ciencias, 2009, 81, 271-279.	0.8	9
51	Chemical migration during soil water retention curve evaluation. Anais Da Academia Brasileira De Ciencias, 2011, 83, 1097-1108.	0.8	9
52	Non-destructive image analysis of soil surface porosity and bulk density dynamics. Radiation Physics and Chemistry, 2011, 80, 561-566.	2.8	9
53	Micromorphological analysis of soil porosity under integrated crop-livestock management systems. Soil and Tillage Research, 2021, 205, 104783.	5.6	9
54	Quantification of the pore size distribution of a Rhodic Hapludox under different management systems with X-ray microtomography and computational simulation. Soil and Tillage Research, 2021, 209, 104941.	5.6	9

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55	4D X-Ray Computed Tomography in Soil Science: an Overview and Future Perspectives at Mogno/Sirius. Brazilian Journal of Physics, 2022, 52, 1.	1.4	9
56	Application of Î³-ray computed tomography to evaluate the radius of influence of soil solution extractors and tensiometers. Nuclear Instruments & Methods in Physics Research B, 2007, 259, 969-974.	1.4	8
57	Funil de haines modificado: curvas de retenÃ§Ã£o de solos prÃ³ximos Ã saturaÃ§Ã£o. Revista Brasileira De Ciencia Do Solo, 2008, 32, 2555-2562.	1.3	8
58	ComparaÃ§Ã£o de mÃ©todos de medida da densidade do solo. Acta Scientiarum - Agronomy, 2011, 33, .	0.6	7
59	Representative elementary area for soil bulk density measurements of samples collected in volumetric rings by CT image analyses. Soil and Tillage Research, 2015, 152, 74-84.	5.6	7
60	Radiation attenuation properties based on the quantification of soil components using the Rietveld Method. Results in Physics, 2019, 12, 2009-2011.	4.1	7
61	Radiological impact of phosphogypsum surface application in a no-till system in Southern Brazil. Pesquisa Agropecuaria Brasileira, 2010, 45, 1456-1464.	0.9	6
62	A method to determine the soil bulk density of undisturbed samples with non-isodiametric shape. Soil and Tillage Research, 2019, 191, 344-352.	5.6	6
63	How do geometric factors influence soil water retention? A study using computerized microtomography. Bulletin of Engineering Geology and the Environment, 2022, 81, 1.	3.5	6
64	MudanÃ§as na estrutura do solo avaliada com uso de tomografia computadorizada. Pesquisa Agropecuaria Brasileira, 2010, 45, 391-400.	0.9	5
65	Improvement on soil structure and water retention after application of industrial organic waste as a crop fertilizer. Journal of Soils and Sediments, 2020, 20, 2771-2783.	3.0	5
66	How Does the Soil Chemical Composition Affect the Mass Attenuation Coefficient? A Study Using Computer Simulation to Understand the Radiation-Soil Interaction Processes. Brazilian Journal of Physics, 2021, 51, 1775.	1.4	5
67	The porous size distribution obtained and analyzed by free access software. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	5
68	Lattice Boltzmann Method for Evaluating Hydraulic Conductivity of Finite Array of Spheres. Scientific World Journal, The, 2012, 2012, 1-8.	2.1	4
69	Soil porosity distribution representative elementary area analyzed through gamma-ray computed tomography. International Agrophysics, 2016, 30, 447-456.	1.7	4
70	Assessment of land levelling effects on lowland soil quality indicators and water retention evaluated by multivariate and geostatistical analyses. Land Degradation and Development, 2020, 31, 959-974.	3.9	4
71	Can the Granulometric Soil Fractions Attenuate the Radiation Differently from the Whole Soil?. Brazilian Archives of Biology and Technology, 0, 64, .	0.5	4
72	Radiation shielding properties of weathered soils: Influence of the chemical composition and granulometric fractions. Nuclear Engineering and Technology, 2022, 54, 3470-3477.	2.3	4

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73	Radiological Impact of Phosphogypsum Application in Agriculture. , 2010, , .		3
74	Gamma-ray computed tomography to evaluate changes in the structure of a clayey soil due to agricultural traffic. Acta Scientiarum - Agronomy, 2011, 33, .	0.6	3
75	<b>Weed control methods effect on the hydraulic attributes of a Latosol. Acta Scientiarum - Agronomy, 2017, 39, 119.	0.6	3
76	Physical assessment of a Haplohumox soil under integrated crop-livestock system. Soil and Tillage Research, 2019, 194, 104294.	5.6	3
77	Water retention curve to analyze soil structure changes due to liming. Anais Da Academia Brasileira De Ciencias, 2019, 91, e20180528.	0.8	3
78	Influence of physical attributes and pedotransfer function for predicting water retention in management systems. Revista Brasileira De Engenharia Agricola E Ambiental, 2017, 21, 746-751.	1.1	3
79	Use of nuclear techniques in soil science: A literature review of the Brazilian contribution. Revista Brasileira De Ciencia Do Solo, 2021, 45, .	1.3	3
80	Theoretical-experimental analyses of simple geometry saturated conductivities for a Newtonian fluid. Brazilian Journal of Physics, 2010, 40, .	1.4	1
81	Experimental Method to Determine Some Physical Properties in Physics Classes. Revista Brasileira De Ciencia Do Solo, 2015, 39, 1507-1512.	1.3	1
82	X-ray Microtomography to Quantify Morphological Sandstones Properties. Brazilian Archives of Biology and Technology, 0, 62, .	0.5	1
83	A novel approach based on X-ray fluorescence and photon attenuation to the analysis of soils for forensic investigation. Revista Brasileira De Ciencia Do Solo, 2022, 46, .	1.3	1
84	How Does the Soil Chemical Composition Affect Its Cross-sections, Effective Atomic Number and Electron Density? Computer Simulation Analysis to Highlight the Radiation-soil Interaction Processes. Brazilian Journal of Physics, 2022, 52, .	1.4	1
85	Tomographic image analysis in representative measurements of soil density. , 2011, , .		0
86	Metodologia alternativa de medida da densidade de meios porosos em laboratÃ³rios didÃ¡ticos de fÃsica. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	0
87	UtilizaÃ§Ã£o de um sensor de umidade para o Arduino na determinaÃ§Ã£o da curva caracterÃstica de retenÃ§Ã£o de Ã¡gua por um sistema poroso. Revista Brasileira De Ensino De Fisica, 0, 42, .	0.2	0