List of Publications by Year in descending order

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#	Article	IF	CITATIONS
1	Organic coating on biochar explains its nutrient retention and stimulation of soil fertility. Nature Communications, 2017, 8, 1089.	12.8	371
2	Plant growth improvement mediated by nitrate capture in co-composted biochar. Scientific Reports, 2015, 5, 11080.	3.3	289
3	Conformational Arrangement of Dissolved Humic Substances. Influence of Solution Composition on Association of Humic Molecules. Environmental Science & Technology, 1999, 33, 1682-1690.	10.0	265
4	Potential availability of heavy metals to phytoextraction from contaminated soils induced by exogenous humic substances. Chemosphere, 2003, 52, 265-275.	8.2	248
5	Increased soil organic carbon sequestration through hydrophobic protection by humic substances. Soil Biology and Biochemistry, 2002, 34, 1839-1851.	8.8	231
6	Soil remediation: humic acids as natural surfactants in the washings of highly contaminated soils. Environmental Pollution, 2005, 135, 515-522.	7.5	217
7	State of the art of CPMAS 13C-NMR spectroscopy applied to natural organic matter. Progress in Nuclear Magnetic Resonance Spectroscopy, 2004, 44, 215-223.	7.5	173
8	Microstructural and associated chemical changes during the composting of a high temperature biochar: Mechanisms for nitrate, phosphate and other nutrient retention and release. Science of the Total Environment, 2018, 618, 1210-1223.	8.0	163
9	Adsorption of Glyphosate by Humic Substancesâ€. Journal of Agricultural and Food Chemistry, 1996, 44, 2442-2446.	5.2	134
10	Fourfold Increase in Pumpkin Yield in Response to Low-Dosage Root Zone Application of Urine-Enhanced Biochar to a Fertile Tropical Soil. Agriculture (Switzerland), 2015, 5, 723-741.	3.1	129
11	Reduced Heterogeneity of a Lignite Humic Acid by Preparative HPSEC Following Interaction with an Organic Acid. Characterization of Size-Separates by Pyr-GC-MS And1H-NMR Spectroscopy. Environmental Science & amp; Technology, 2002, 36, 76-84.	10.0	128
12	Changes of humic substances characteristics from forested to cultivated soils in Ethiopia. Geoderma, 2006, 132, 9-19.	5.1	115
13	Effects of mineral and monocarboxylic acids on the molecular association of dissolved humic substances. European Journal of Soil Science, 1999, 50, 687-694.	3.9	108
14	Increased retention of polycyclic aromatic hydrocarbons in soils induced by soil treatment with humic substances. Environmental Pollution, 2001, 112, 27-31.	7.5	107
15	Effect of Heating Time and Temperature on the Chemical Characteristics of Biochar from Poultry Manure. Journal of Agricultural and Food Chemistry, 2014, 62, 1912-1918.	5.2	106
16	Structure alteration of a sandy-clay soil by biochar amendments. Journal of Soils and Sediments, 2015, 15, 816-824.	3.0	106
17	Atrazine Interactions with Soil Humic Substances of Different Molecular Structure. Journal of Environmental Quality, 1998, 27, 1324-1333.	2.0	93
18	Quantitative aspects of solid-state 13C-NMR spectra of humic substances from soils of volcanic systems. Geoderma, 1997, 80, 327-338.	5.1	81

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19	Polymerization of humic substances by an enzyme-catalyzed oxidative coupling. Die Naturwissenschaften, 2000, 87, 391-394.	1.6	80
20	Conformational changes of humic substances induced by some hydroxy-, keto-, and sulfonic acids. Soil Biology and Biochemistry, 2001, 33, 563-571.	8.8	80
21	CHROMATOGRAPHIC AND SPECTROPHOTOMETRIC PROPERTIES OF DISSOLVED HUMIC SUBSTANCES COMPARED WITH MACROMOLECULAR POLYMERS. Soil Science, 2001, 166, 174-185.	0.9	77
22	High pressure size exclusion chromatography (HPSEC) of humic substances: Molecular sizes, analytical parameters, and column performance. Chemosphere, 1999, 38, 517-528.	8.2	69
23	Biochar based remediation of water and soil contaminated by phenanthrene and pentachlorophenol. Chemosphere, 2017, 186, 193-201.	8.2	67
24	Quantitative differences in evaluating soil humic substances by liquid- and solid-state 13C-NMR spectroscopy. Geoderma, 1997, 80, 339-352.	5.1	66
25	Carbohydrates and aggregation in lowland soils of Nigeria as influenced by organic inputs. Soil and Tillage Research, 2004, 75, 161-172.	5.6	66
26	Nature of waterâ€biochar interface interactions. GCB Bioenergy, 2013, 5, 116-121.	5.6	65
27	Effects of humic substances and soya lecithin on the aerobic bioremediation of a soil historically contaminated by polycyclic aromatic hydrocarbons (PAHs). Biotechnology and Bioengineering, 2004, 88, 214-223.	3.3	63
28	Synthesis and thermoelectric characterisation of bismuth nanoparticles. Journal of Nanoparticle Research, 2009, 11, 1729-1738.	1.9	61
29	Influence of land use on the characteristics of humic substances in some tropical soils of Nigeria. European Journal of Soil Science, 2005, 56, 343-352.	3.9	58
30	Cooking influence on physico-chemical fruit characteristics of eggplant (Solanum melongena L.). Food Chemistry, 2016, 194, 835-842.	8.2	57
31	Spectroscopic and conformational properties of size-fractions separated from a lignite humic acid. Chemosphere, 2007, 69, 1032-1039.	8.2	55
32	Increased Conformational Rigidity of Humic Substances by Oxidative Biomimetic Catalysis. Biomacromolecules, 2005, 6, 351-358.	5.4	50
33	Fast field cycling NMR relaxometry characterization of biochars obtained from an industrial thermochemical process. Journal of Soils and Sediments, 2012, 12, 1211-1221.	3.0	48
34	lodofluorination of alkenes and alkynes promoted by iodine and 4-iodotoluene difluoride. Tetrahedron Letters, 2006, 47, 273-276.	1.4	46
35	Effects of some dicarboxylic acids on the association of dissolved humic substances. Biology and Fertility of Soils, 2003, 37, 255-259.	4.3	45
36	Effect of pruning-derived biochar on heavy metals removal and water dynamics. Biology and Fertility of Soils, 2014, 50, 1211-1222.	4.3	45

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37	Mechanisms of Water Interaction with Pore Systems of Hydrochar and Pyrochar from Poplar Forestry Waste. Journal of Agricultural and Food Chemistry, 2014, 62, 4917-4923.	5.2	44
38	Designing biochar properties through the blending of biomass feedstock with metals: Impact on oxyanions adsorption behavior. Chemosphere, 2019, 214, 743-753.	8.2	44
39	Elemental Quantitation of Natural Organic Matter by CPMAS 13C NMR Spectroscopy. Solid State Nuclear Magnetic Resonance, 2002, 21, 158-170.	2.3	42
40	Advanced CPMAS-13C NMR techniques for molecular characterization of size-separated fractions from a soil humic acid. Analytical and Bioanalytical Chemistry, 2006, 386, 382-390.	3.7	40
41	Hydration and water holding properties of cross-linked lignite humic acids. Geoderma, 2014, 230-231, 151-160.	5.1	39
42	Recent Developments in Understanding Biochar's Physical–Chemistry. Agronomy, 2021, 11, 615.	3.0	37
43	Dissolution Mechanism of Crystalline Cellulose in H <sub>3</sub> PO <sub>4</sub> As Assessed by High-Field NMR Spectroscopy and Fast Field Cycling NMR Relaxometry. Journal of Agricultural and Food Chemistry, 2009, 57, 8748-8752.	5.2	34
44	Combined proton NMR wideline and NMR relaxometry to study SOM-water interactions of cation-treated soils. Journal of Hydrology and Hydromechanics, 2013, 61, 50-63.	2.0	34
45	Adsorption of dissolved organic matter on clay minerals as assessed by infra-red, CPMAS 13C NMR spectroscopy and low field T1 NMR relaxometry. Organic Geochemistry, 2011, 42, 972-977.	1.8	33
46	Effect of ramp size and sample spinning speed on CPMAS 13C NMR spectra of soil organic matter. Organic Geochemistry, 2011, 42, 926-935.	1.8	29
47	Dynamics of pistachio oils by proton nuclear magnetic resonance relaxation dispersion. Analytical and Bioanalytical Chemistry, 2011, 400, 1443-1450.	3.7	29
48	DSC study on hyaluronan drying and hydration. Thermochimica Acta, 2011, 523, 245-249.	2.7	29
49	Spatial patterns of, and environmental controls on, soil properties at a riparian–paddock interface. Soil Biology and Biochemistry, 2012, 49, 38-45.	8.8	29
50	Effect of Organic Amendments on the Evolution of Soil Organic Matter in Soils Stressed by Intensive Agricultural Practices. Current Organic Chemistry, 2013, 17, 2998-3005.	1.6	29
51	Water dynamics in different biochar fractions. Magnetic Resonance in Chemistry, 2015, 53, 726-734.	1.9	28
52	Structural Characterization of Isomeric Dimers from the Oxidative Oligomerization of Catechol with a Biomimetic Catalyst. Biomacromolecules, 2007, 8, 737-743.	5.4	27
53	Evaluation of the factors affecting direct polarization solid state <sup>31</sup> Pâ€NMR spectroscopy of bulk soils. European Journal of Soil Science, 2008, 59, 584-591.	3.9	27
54	Effects of afforestation with four unmixed plant species on the soil–water interactions in a semiarid Mediterranean region (Sicily, Italy). Journal of Soils and Sediments, 2012, 12, 1222-1230.	3.0	27

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55	Influence of Adsorbed Water on the Activation Energy of Model Photocatalytic Reactions. Journal of Physical Chemistry C, 2017, 121, 2258-2267.	3.1	26
56	Solid-State <sup>1</sup> H-NMR Relaxation Properties of the Fruit of a Wild Relative of Eggplant at Different Proton Larmor Frequencies. Spectroscopy Letters, 2009, 42, 235-239.	1.0	25
57	Chemical and Spectroscopic Characteristics of the Wood of <i>Vitis vinifera</i> Cv. Sangiovese Affected by Esca Disease. Journal of Agricultural and Food Chemistry, 2009, 57, 11469-11475.	5.2	25
58	Comparing different processing methods in appleÂslice drying. Part 2 solid-state Fast Field Cycling 1H-NMR relaxation properties, shrinkage and changes in volatile compounds. Biosystems Engineering, 2019, 188, 345-354.	4.3	25
59	Evaluation of adsorption ability of cyclodextrin-calixarene nanosponges towards Pb2+ ion in aqueous solution. Carbohydrate Polymers, 2021, 267, 118151.	10.2	25
60	Biochar from Wood Chips and Corn Cobs for Adsorption of Thioflavin T and Erythrosine B. Materials, 2022, 15, 1492.	2.9	24
61	A comparison of acid hydrolyses for the determination of carbohydrate content in soils. Communications in Soil Science and Plant Analysis, 1996, 27, 2909-2915.	1.4	23
62	Chemical properties of humic substances in soils of an Italian volcanic system. Geoderma, 2003, 117, 243-250.	5.1	23
63	Dynamics of hyaluronan aqueous solutions as assessed by fast field cycling NMR relaxometry. Analytical and Bioanalytical Chemistry, 2010, 397, 3023-3028.	3.7	23
64	Effects of ions on water structure: a lowâ€field <sup>1</sup> H <i>T</i> <sub>1</sub> NMR relaxometry approach. Magnetic Resonance in Chemistry, 2015, 53, 711-718.	1.9	22
65	NMR-investigation of the mechanism of silver mercaptide thermolysis in amorphous polystyrene. Journal of Materials Chemistry, 2007, 17, 201-205.	6.7	21
66	Mechanisms of Organic Coating on the Surface of a Poplar Biochar. Current Organic Chemistry, 2017, 21, 559-565.	1.6	20
67	Dynamics of Cross Polarization in Solid State Nuclear Magnetic Resonance Experiments of Amorphous and Heterogeneous Natural Organic Substances. Analytical Sciences, 2008, 24, 1183-1188.	1.6	18
68	Evaluation of the surface affinity of water in three biochars using fast field cycling NMR relaxometry. Magnetic Resonance in Chemistry, 2016, 54, 365-370.	1.9	18
69	Assessing hydrological connectivity inside a soil by fast-field-cycling nuclear magnetic resonance relaxometry and its link to sediment delivery processes. Environmental Earth Sciences, 2017, 76, 1.	2.7	18
70	Nature of Interactions at the Interface of Two Water-Saturated Commercial TiO <sub>2</sub> Polymorphs. Journal of Physical Chemistry C, 2013, 117, 5269-5273.	3.1	17
71	Biochar, soil fertility, and environment. Biology and Fertility of Soils, 2014, 50, 1175-1175.	4.3	17
72	Water Dynamics at the Solid–Liquid Interface to Unveil the Textural Features of Synthetic Nanosponges. Journal of Physical Chemistry B, 2020, 124, 1847-1857.	2.6	17

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73	Applicability of solid state fast field cycling NMR relaxometry in understanding relaxation properties of leaves and leaf-litters. Organic Geochemistry, 2011, 42, 978-984.	1.8	16
74	Measuring hydrological connectivity inside a soil by low field nuclear magnetic resonance relaxometry. Hydrological Processes, 2018, 32, 93-101.	2.6	16
75	Small-sized platinum nanoparticles in soil organic matter: Influence on water holding capacity, evaporation and structural rigidity. Science of the Total Environment, 2019, 694, 133822.	8.0	15
76	Water Dynamics and Its Role in Structural Hysteresis of Dissolved Organic Matter. Environmental Science & Technology, 2016, 50, 2210-2216.	10.0	14
77	Fast field cycling NMR relaxometry as a tool to monitor Parmigiano Reggiano cheese ripening. Food Research International, 2021, 139, 109845.	6.2	14
78	Combined effects of an oxidative enzyme and dissolved humic substances on 13 C-labelled 2,4-D herbicide as revealed by high-resolution 13 C NMR spectroscopy. Journal of Industrial Microbiology and Biotechnology, 2001, 26, 70-76.	3.0	13
79	O-Alkylation of a lignite humic acid by phase-transfer catalysis. Analytical and Bioanalytical Chemistry, 2006, 384, 994-1001.	3.7	13
80	Reconstruction of the environmental evolution of a Sicilian saltmarsh (Italy). Environmental Science and Pollution Research, 2013, 20, 4847-4858.	5.3	13
81	Nuclear Magnetic Resonance with Fast Field-Cycling Setup: A Valid Tool for Soil Quality Investigation. Agronomy, 2020, 10, 1040.	3.0	13
82	Research and Application of Biochar in Europe. SSSA Special Publication Series, 0, , 409-422.	0.2	12
83	Thermal transformation of micro-crystalline cellulose in phosphoric acid. Cellulose, 2011, 18, 1499-1507.	4.9	11
84	Standardizing the use of fastâ€field cycling NMR relaxometry for measuring hydrological connectivity inside the soil. Magnetic Resonance in Chemistry, 2020, 58, 41-50.	1.9	11
85	Interactions between 2â€Aminobenzothiazole and Natural Organic Matter as Evidenced by CPMAS Nitrogenâ€15 NMR Spectroscopy. Vadose Zone Journal, 2009, 8, 670-676.	2.2	10
86	CPMAS 13C NMR Characterization of Leaves and Litters from the Reafforestated Area of Mustigarufi in Sicily (Italy)~!2009-06-15~!2009-12-07~!2010-06-18~!. The Open Magnetic Resonance Journal, 2010, 3, 89-95.	0.5	10
87	1H NMR Spectroscopy with Multivariate Statistical Analysis as a Tool for a Rapid Screening of the Molecular Changes Occurring During Micro-Oxygenation of an Italian Red Wine. The Open Magnetic Resonance Journal, 2008, 1, 77-80.	0.5	9
88	Applications of fast field cycling NMR relaxometry. Annual Reports on NMR Spectroscopy, 2021, 104, 141-188.	1.5	8
89	Changes in Physicochemical Properties of Biochar after Addition to Soil. Agriculture (Switzerland), 2022, 12, 320.	3.1	8
90	COMMENTS ON "MODERN ANALYTICAL STUDIES OF HUMIC SUBSTANCES―BY HATCHER ET AL Soil Science	e, <sub>0.9</sub>	7

2003, 168, 73-74.

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91	Synthesis and characterization of a novel high luminescent goldâ€2â€mercaptoâ€1â€methylâ€imidazole complex Luminescence, 2011, 26, 506-509.	<sup>(.</sup> 2.9	6
92	Conformational Redistribution of Honey Components following Different Storage Conditions. International Journal of Spectroscopy, 2015, 2015, 1-7.	1.6	6
93	Structural and Mechanical Modification Induced by Water Content in Giant Wild Reed (A. donaxL.). ACS Omega, 2018, 3, 18510-18517.	3.5	6
94	Heuristic Algorithm for the Analysis of Fast Field Cycling (FFC) NMR Dispersion Curves. Analytical Chemistry, 2021, 93, 8553-8558.	6.5	6
95	Differentiation among dairy products by combination of fast field cycling NMR relaxometry data and chemometrics. Magnetic Resonance in Chemistry, 2022, 60, 369-385.	1.9	6
96	Effect of RF Field Inhomogeneity and Sample Restriction on Spectral Resolution of CP/MAS-13C NMR Spectra of Natural Organic Matter~!2009-07-15~!2009-12-11~!2010-06-18~!. The Open Magnetic Resonance Journal, 2010, 3, 75-83.	0.5	5
97	Palynological, physico-chemical and aroma characterization of Sicilian honeys. Journal of ApiProduct and ApiMedical Science, 2011, 3, 164-173.	0.4	5
98	Effect of concentration on the self-assembling of dissolved humic substances. Developments in Soil Science, 2002, 28, 409-417.	0.5	4
99	Precise measurement of 1H 90° pulse in solid-state NMR spectroscopy for complex and heterogeneous molecular systems. Analytical and Bioanalytical Chemistry, 2007, 387, 2903-2909.	3.7	4
100	CPMAS 13C NMR Characterization of Leaves and Litters from the Reafforestated Area of Mustigarufi in Sicily (Italy). The Open Magnetic Resonance Journal, 2010, 3, 89-95.	0.5	4
101	Factors influencing structural heat-induced structural relaxation of dissolved organic matter. Ecotoxicology and Environmental Safety, 2019, 167, 422-428.	6.0	3
102	Chapter 10. Environmental Applications of Fast Field-cycling NMR Relaxometry. New Developments in NMR, 0, , 229-254.	0.1	3
103	Editorial: [Applications and New Developments of Magnetic Resonance Techniques in Soil Science]. The Open Magnetic Resonance Journal, 2010, 3, 14-14.	0.5	2
104	Interaction of a Recombinant Prion Protein with Organo-Mineral Complexes as Assessed by FT-IR and CPMAS 13C NMR Analysis~!2009-07-21~!2009-12-07~!2010-06-18~!. The Open Magnetic Resonance Journal, 2010, 3, 84-88.	0.5	2
105	State of the Art of CPMAS13C-NMR Spectroscopy Applied to Natural Organic Matter. ChemInform, 2004, 35, no.	0.0	1
106	Molecular Sizes and Association Forces of Humic Substances in Solution. , 0, , 89-118.		1
107	Look for methods, not conclusions. Cell Death and Disease, 2019, 10, 931.	6.3	1
108	Editorial - Applications and New Developments of Magnetic Resonance Techniques in Soil Science. The Open Magnetic Resonance Journal, 2010, 3, 14-14.	0.5	1

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109	Editorial (Thematic Issue: Recent Advances in Environmental Organic and Bio-Organic Chemistry). Current Organic Chemistry, 2013, 17, 2971-2971.	1.6	0