Riccardo Spaccini

List of Publications by Citations

111 papers	4,235 citations	38 h-index	60 g-index
114 ext. papers	4,861 ext. citations	5.7 avg, IF	5.59 L-index

#	Paper	IF	Citations
111	Increased soil organic carbon sequestration through hydrophobic protection by humic substances. *Soil Biology and Biochemistry*, **2002**, 34, 1839-1851	7.5	197
110	Soil remediation: humic acids as natural surfactants in the washings of highly contaminated soils. *Environmental Pollution*, **2005**, 135, 515-22	9.3	191
109	State of the art of CPMAS 13C-NMR spectroscopy applied to natural organic matter. *Progress in Nuclear Magnetic Resonance Spectroscopy*, **2004**, 44, 215-223	10.4	146
108	Compost amendments enhance peat suppressiveness to Pythium ultimum, Rhizoctonia solani and Sclerotinia minor. *Biological Control*, **2011**, 56, 115-124	3.8	128
107	Chemical composition and bioactivity properties of size-fractions separated from a vermicompost humic acid. *Chemosphere*, **2010**, 78, 457-66	8.4	126
106	Relationship between molecular characteristics of soil humic fractions and glycolytic pathway and krebs cycle in maize seedlings. *Soil Biology and Biochemistry*, **2007**, 39, 3138-3146	7.5	124
105	Agricultural waste-based composts exhibiting suppressivity to diseases caused by the phytopathogenic soil-borne fungi Rhizoctonia solani and Sclerotinia minor. *Applied Soil Ecology*, **2013**, 65, 43-51	5	109
104	Molecular characteristics of humic acids extracted from compost at increasing maturity stages. *Soil Biology and Biochemistry*, **2009**, 41, 1164-1172	7.5	108
103	Bioactivity of chemically transformed humic matter from vermicompost on plant root growth. *Journal of Agricultural and Food Chemistry*, **2010**, 58, 3681-8	5.7	99
102	Changes of humic substances characteristics from forested to cultivated soils in Ethiopia. *Geoderma* , **2006**, 132, 9-19	6.7	98
101	Linking organic matter chemistry with soil aggregate stability: Insight from 13C NMR spectroscopy. *Soil Biology and Biochemistry*, **2018**, 117, 175-184	7.5	93
100	Sequestration of a Biologically Labile Organic Carbon in Soils by Humified Organic Matter. *Climatic Change*, **2004**, 67, 329-343	4.5	87
99	Transformation of organic matter from maize residues into labile and humic fractions of three European soils as revealed by 13C distribution and CPMAS-NMR spectra. *European Journal of Soil Science*, **2000**, 51, 583-594	3.4	83
98	Molecular and isotopic study of lipids in particle size fractions of a sandy cultivated soil (Cestas cultivation sequence, southwest France): Sources, degradation, and comparison with Cestas forest soil. *Organic Geochemistry*, **2006**, 37, 20-44	3.1	79
97	Polymerization of humic substances by an enzyme-catalyzed oxidative coupling. *Die Naturwissenschaften*, **2000**, 87, 391-4	2	72
96	The molecular characteristics of compost affect plant growth, arbuscular mycorrhizal fungi, and soil microbial community composition. *Biology and Fertility of Soils*, **2016**, 52, 15-29	6.1	64
95	Molecular characterization of compost at increasing stages of maturity. 2. Thermochemolysis-GC-MS and 13C-CPMAS-NMR spectroscopy. *Journal of Agricultural and Food Chemistry*, **2007**, 55, 2303-11	5.7	64

94	Increased sequestration of organic carbon in soil by hydrophobic protection. *Die Naturwissenschaften*, **1999**, 86, 496-9	2	64
93	Carbohydrates in water-stable aggregates and particle size fractions of forested and cultivated soils in two contrasting tropical ecosystems. *Biogeochemistry*, **2001**, 53, 1-22	3.8	63
92	On-farm compost: a useful tool to improve soil quality under intensive farming systems. *Applied Soil Ecology*, **2016**, 107, 13-23	5	63
91	Decomposition of black locust and black pine leaf litter in two coeval forest stands on Mount Vesuvius and dynamics of organic components assessed through proximate analysis and NMR spectroscopy. *Soil Biology and Biochemistry*, **2012**, 51, 1-15	7.5	62
90	Binding of phenol and differently halogenated phenols to dissolved humic matter as measured by NMR spectroscopy. *Environmental Science & Technology*, **2009**, 43, 5377-82	10.3	61
89	Molecular changes in particulate organic matter (POM) in a typical Chinese paddy soil under different long-term fertilizer treatments. *European Journal of Soil Science*, **2010**, 61, 231-242	3.4	60
88	Soil washing with solutions of humic substances from manure compost removes heavy metal contaminants as a function of humic molecular composition. *Chemosphere*, **2019**, 225, 150-156	8.4	52
87	Chemical properties of humic matter as related to induction of plant lateral roots. *European Journal of Soil Science*, **2012**, 63, 315-324	3.4	52
86	Carbohydrates and aggregation in lowland soils of Nigeria as influenced by organic inputs. *Soil and Tillage Research*, **2004**, 75, 161-172	6.5	52
85	Relationships Between Chemical Characteristics and Root Growth Promotion of Humic Acids Isolated From Brazilian Oxisols. *Soil Science*, **2009**, 174, 611-620	0.9	51
84	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	3.4	50
83	Spectroscopic and conformational properties of size-fractions separated from a lignite humic acid. *Chemosphere*, **2007**, 69, 1032-9	8.4	48
82	Effects of on-farm composted tomato residues on soil biological activity and yields in a tomato cropping system. *Chemical and Biological Technologies in Agriculture*, **2015**, 2, 4	4.4	45
81	Effects of a humic acid and its size-fractions on the bacterial community of soil rhizosphere under maize (Zea mays L.). *Chemosphere*, **2009**, 77, 829-37	8.4	45
80	Molecular characterization of compost at increasing stages of maturity. 1. Chemical fractionation and infrared spectroscopy. *Journal of Agricultural and Food Chemistry*, **2007**, 55, 2293-302	5.7	45
79	A molecular zoom into soil Humeome by a direct sequential chemical fractionation of soil. *Science of the Total Environment*, **2017**, 586, 807-816	10.2	42
78	Molecular characteristics of water-extractable organic matter from different composted biomasses and their effects on seed germination and early growth of maize. *Science of the Total Environment*, **2017**, 590-591, 40-49	10.2	41
77	Carbon deposition in soil rhizosphere following amendments with compost and its soluble fractions, as evaluated by combined soil-plant rhizobox and reporter gene systems. *Chemosphere*, **2008**, 73, 1292-9	8.4	40

76	Bioactivity of humic substances and water extracts from compost made by ligno-cellulose wastes from biorefinery. *Science of the Total Environment*, **2019**, 646, 792-800	10.2	39
75	Molecular characteristics of humic acids isolated from vermicomposts and their relationship to bioactivity. *Journal of Agricultural and Food Chemistry*, **2014**, 62, 11412-9	5.7	39
74	Metabolomic by 1H NMR spectroscopy differentiates "Fiano di Avellino" white wines obtained with different yeast strains. *Journal of Agricultural and Food Chemistry*, **2013**, 61, 10816-22	5.7	39
73	Advanced CPMAS-13C NMR techniques for molecular characterization of size-separated fractions from a soil humic acid. *Analytical and Bioanalytical Chemistry*, **2006**, 386, 382-90	4.4	38
72	Effects of some dicarboxylic acids on the association of dissolved humic substances. *Biology and Fertility of Soils*, **2003**, 37, 255-259	6.1	37
71	Rhizosphere microbial diversity as influenced by humic substance amendments and chemical composition of rhizodeposits. *Journal of Geochemical Exploration*, **2013**, 129, 82-94	3.8	36
70	Molecular changes in organic matter of a compost-amended soil. *European Journal of Soil Science*, **2009**, 60, 287-296	3.4	36
69	Decomposition of maize straw in three European soils as revealed by DRIFT spectra of soil particle fractions. *Geoderma*, **2001**, 99, 245-260	6.7	36
68	Enhancing sustainability of a processing tomato cultivation system by using bioactive compost teas. *Scientia Horticulturae*, **2016**, 202, 117-124	4.1	34
67	Molecular evaluation of soil organic matter characteristics in three agricultural soils by improved off-line thermochemolysis: the effect of hydrofluoric acid demineralisation treatment. *Analytica Chimica Acta*, **2013**, 802, 46-55	6.6	34
66	Effects of field managements for soil organic matter stabilization on water-stable aggregate distribution and aggregate stability in three agricultural soils. *Journal of Geochemical Exploration*, **2013**, 129, 45-51	3.8	34
65	Unveiling the molecular composition of the unextractable soil organic fraction (humin) by humeomics. *Biology and Fertility of Soils*, **2015**, 51, 443-451	6.1	33
64	BIOACTIVITY AND CHEMICAL CHARACTERISTICS OF HUMIC ACIDS FROM TROPICAL SOILS SEQUENCE. *Soil Science*, **2008**, 173, 624-637	0.9	33
63	An alternative to mineral phosphorus fertilizers: The combined effects of Trichoderma harzianum and compost on Zea mays, as revealed by 1H NMR and GC-MS metabolomics. *PLoS ONE*, **2018**, 13, e0209664	2.7	33
62	Multivariate analysis of CPMAS 13C-NMR spectra of soils and humic matter as a tool to evaluate organic carbon quality in natural systems. *European Journal of Soil Science*, **2008**, 59, 496-504	3.4	32
61	Stabilization by hydrophobic protection as a molecular mechanism for organic carbon sequestration in maize-amended rice paddy soils. *Science of the Total Environment*, **2013**, 458-460, 319-30	10.2	31
60	Molecular characteristics of vermicompost and their relationship to preservation of inoculated nitrogen-fixing bacteria. *Journal of Analytical and Applied Pyrolysis*, **2013**, 104, 540-550	6	30
59	Separation of molecular constituents from a humic acid by solid-phase extraction following a transesterification reaction. *Talanta*, **2006**, 68, 1135-42	6.2	30

58	Influence of the addition of organic residues on carbohydrate content and structural stability of some highland soils in Ethiopia. *Soil Use and Management*, **2002**, 18, 404-411	3.1	30
57	Molecular properties of a fermented manure preparation used as field spray in biodynamic agriculture. *Environmental Science and Pollution Research*, **2012**, 19, 4214-25	5.1	29
56	Molecular characterization of a compost and its water-soluble fractions. *Journal of Agricultural and Food Chemistry*, **2008**, 56, 1017-24	5.7	29
55	Phosphorus speciation and high-affinity transporters are influenced by humic substances. *Journal of Plant Nutrition and Soil Science*, **2016**, 179, 206-214	2.3	27
54	Spectroscopic Characterization of Compost at Different Maturity Stages. *Clean - Soil, Air, Water*, **2008**, 36, 152-157	1.6	27
53	Evaluation of the factors affecting direct polarization solid state 31P-NMR spectroscopy of bulk soils. *European Journal of Soil Science*, **2008**, 59, 584-591	3.4	26
52	Microbiological features and bioactivity of a fermented manure product (preparation 500) used in biodynamic agriculture. *Journal of Microbiology and Biotechnology*, **2013**, 23, 644-51	3.3	26
51	Transformation of organic matter from maize residues into labile and humic fractions of three European soils as revealed by 13C distribution and CPMAS-NMR spectra. *European Journal of Soil Science*, **2000**, 51, 583-594	3.4	26
50	Carbon sequestration in soil by in situ catalyzed photo-oxidative polymerization of soil organic matter. *Environmental Science & Technology*, **2011**, 45, 6697-702	10.3	25
49	Humic extracts of hydrochar and Amazonian Dark Earth: Molecular characteristics and effects on maize seed germination. *Science of the Total Environment*, **2020**, 708, 135000	10.2	25
48	Fulvic acid affects proliferation and maturation phases in Abies cephalonica embryogenic cells. *Journal of Plant Physiology*, **2011**, 168, 1226-33	3.6	24
47	Interactions of three s-triazines with humic acids of different structure. *Journal of Agricultural and Food Chemistry*, **2008**, 56, 7360-6	5.7	24
46	Chemical properties of humic substances in soils of an Italian volcanic system. *Geoderma*, **2003**, 117, 243-250	6.7	23
45	Remediation of highly contaminated soils from an industrial site by employing a combined treatment with exogeneous humic substances and oxidative biomimetic catalysis. *Journal of Hazardous Materials*, **2013**, 261, 55-62	12.8	22
44	Off-line TMAH-GC/MS and NMR characterization of humic substances extracted from river sediments of northwestern S□ Paulo under different soil uses. *Science of the Total Environment*, **2015**, 506-507, 234-40	10.2	21
43	Effective carbon sequestration in Italian agricultural soils by in situ polymerization of soil organic matter under biomimetic photocatalysis. *Land Degradation and Development*, **2018**, 29, 485-494	4.4	21
42	OMDY: a new model of organic matter decomposition based on biomolecular content as assessed by 13C-CPMAS-NMR. *Plant and Soil*, **2017**, 411, 377-394	4.2	21
41	Molecular changes of soil organic matter induced by root exudates in a rice paddy under CO2 enrichment and warming of canopy air. *Soil Biology and Biochemistry*, **2019**, 137, 107544	7.5	20

40	Differences in fluorescence properties between humic acid and its size fractions separated by preparative HPSEC. *Journal of Geochemical Exploration*, **2013**, 129, 23-27	3.8	20
39	Disease suppressiveness of agricultural greenwaste composts as related to chemical and bio-based properties shaped by different on-farm composting methods. *Biological Control*, **2019**, 137, 104026	3.8	19
38	Use of a new hybrid sol-gel zirconia matrix in the removal of the herbicide MCPA: a sorption/degradation process. *Environmental Science & Technology*, **2012**, 46, 1755-63	10.3	19
37	The Molecular Composition of Humus Carbon: Recalcitrance and Reactivity in Soils **2018**, 87-124		19
36	Remediation of waters contaminated with MCPA by the yeasts Lipomyces starkeyi entrapped in a sol-gel zirconia matrix. *Environmental Science & Technology*, **2010**, 44, 9476-81	10.3	18
35	Effect of humic acids on phosphate level and energetic metabolism of tobacco BY-2 suspension cell cultures. *Environmental and Experimental Botany*, **2009**, 65, 287-295	5.9	18
34	Evaluation of molecular properties of humic acids from vermicompost by 13 C-CPMAS-NMR spectroscopy and thermochemolysis GC/MS. *Journal of Analytical and Applied Pyrolysis*, **2019**, 141, 104634	6	17
33	Characterization of typical aquatic humic substances in areas of sugarcane cultivation in Brazil using tetramethylammonium hydroxide thermochemolysis. *Science of the Total Environment*, **2015**, 518-519, 201-8	10.2	17
32	Decomposition of bio-degradable plastic polymer in a real on-farm composting process. *Chemical and Biological Technologies in Agriculture*, **2016**, 3,	4.4	16
31	Bioactivity and antimicrobial properties of chemically characterized compost teas from different green composts. *Waste Management*, **2021**, 120, 98-107	8.6	15
30	The Soil Humeome: Chemical Structure, Functions and Technological Perspectives **2019**, 183-222		14
29	Alkamides: a new class of plant growth regulators linked to humic acid bioactivity. *Chemical and Biological Technologies in Agriculture*, **2019**, 6,	4.4	14
28	Infrared spectra of soil organic matter under a primary vegetation sequence. *Chemical and Biological Technologies in Agriculture*, **2020**, 7,	4.4	13
27	Reduced toxicity of olive mill waste waters by oxidative coupling with biomimetic catalysis. *Environmental Science & Technology*, **2008**, 42, 4896-901	10.3	12
26	In situ photo-polymerization of soil organic matter by heterogeneous nano-TiO2 and biomimetic metal-porphyrin catalysts. *Biology and Fertility of Soils*, **2016**, 52, 585-593	6.1	12
25	Amendments with humified compost effectively sequester organic carbon in agricultural soils. *Land Degradation and Development*, **2020**, 31, 1206-1216	4.4	11
24	Degradation of 2,4-dichlorophenol and coupling into humic matter by oxidative biomimetic catalysis with iron-porphyrin. *Journal of Geochemical Exploration*, **2013**, 129, 28-33	3.8	10
23	Carbon Sequestration in Soils by Hydrophobic Protection and In Situ Catalyzed Photo-Polymerization of Soil Organic Matter (SOM): Chemical and Physical Chemical Aspects of SOM in Field Plots **2012**, 61-105		10

22	Humic substances from green compost increase bioactivity and antibacterial properties of essential oils in Basil leaves. *Chemical and Biological Technologies in Agriculture*, **2021**, 8,	4.4	8
21	Molecular characterization of soil organic matter and its extractable humic fraction from long-term field experiments under different cropping systems. *Geoderma*, **2021**, 383, 114700	6.7	8
20	The Stable Isotopes Approach to Study C and N Sequestration Processes in a Plant-Soil System **2012**, 107-144		7
19	Humic extracts from hydrochar and Amazonian Anthrosol: Molecular features and metal binding properties using EEM-PARAFAC and 2D FTIR correlation analyses. *Chemosphere*, **2020**, 256, 127110	8.4	7
18	Molecular dynamics of organic matter in a tilled soil under short term wheat cultivation. *Soil and Tillage Research*, **2020**, 196, 104448	6.5	7
17	In situ polymerization of soil organic matter by oxidative biomimetic catalysis. *Chemical and Biological Technologies in Agriculture*, **2017**, 4,	4.4	6
16	Humic acids trigger the weak acids stress response in maize seedlings. *Chemical and Biological Technologies in Agriculture*, **2020**, 7,	4.4	6
15	Soil Amendments with Lignocellulosic Residues of Biorefinery Processes Affect Soil Organic Matter Accumulation and Microbial Growth. *ACS Sustainable Chemistry and Engineering*, **2020**, 8, 3381-3391	8.3	5
14	Influence of the addition of organic residues on carbohydrate content and structural stability of some highland soils in Ethiopia. *Soil Use and Management*, **2006**, 18, 404-411	3.1	5
13	Efficient simultaneous removal of heavy metals and polychlorobiphenyls from a polluted industrial site by washing the soil with natural humic surfactants. *Environmental Science and Pollution Research*, **2021**, 28, 25748-25757	5.1	5
12	New Modeling Approach to Describe and Predict Carbon Sequestration Dynamics in Agricultural Soils **2012**, 291-307		4
11	Molecular Properties and Functions of Humic Substances and Humic-Like Substances (HULIS) from Biomass and Their Transformation Products **2016**, 85-114		3
10	Conformational Distribution of Dissolved Organic Matter Released from Compost by Repeated Water Extractions. *Compost Science and Utilization*, **2010**, 18, 105-110	1.2	3
9	Acclimation with humic acids enhances maize and tomato tolerance to salinity. *Chemical and Biological Technologies in Agriculture*, **2021**, 8,	4.4	3
8	Differences in nutrients, organic components and decomposition pattern of Phillyrea angustifolia leaf litter across a low maquis. *Plant and Soil*, **2021**, 464, 559-578	4.2	2
7	Insights on Molecular Characteristics of Hydrochars by C-NMR and Off-Line TMAH-GC/MS and Assessment of Their Potential Use as Plant Growth Promoters. *Molecules*, **2021**, 26,	4.8	2
6	Molecular Sizes and Association Forces of Humic Substances in Solution **2015**, 89-118		1
5	State of the Art of CPMAS 13C-NMR Spectroscopy Applied to Natural Organic Matter. *ChemInform*, **2004**, 35, no		1

4	Hydrochar obtained with by-products from the sugarcane industry: Molecular features and effects of extracts on maize seed germination. *Journal of Environmental Management*, **2021**, 281, 111878	7.9	1
3	Molecular properties of the Humeome of two calcareous grassland soils as revealed by GC/qTOF-MS and NMR spectroscopy. *Chemosphere*, **2021**, 279, 130518	8.4	1
2	Soil Organic Matter Quality From Soils Cropped by Traditional Peasants. *Sustainable Agriculture Research*, **2014**, 3, 63	1	0
1	Changes in water-extractable organic matter in tropical forest and agricultural soils as detected by the DRIFT spectroscopy technique. *Land Degradation and Development*, **2021**, 32, 4755	4.4	0