

Jo U Smith

List of Publications by Year in descending order

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93
papers

8,837
citations

109311

35
h-index

49904

87
g-index

96
all docs

96
docs citations

96
times ranked

10369
citing authors

#	ARTICLE	IF	CITATIONS
1	Greenhouse gas mitigation in agriculture. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2008, 363, 789-813.	4.0	1,739
2	Ecosystem Service Supply and Vulnerability to Global Change in Europe. <i>Science</i> , 2005, 310, 1333-1337.	12.6	1,355
3	A comparison of the performance of nine soil organic matter models using datasets from seven long-term experiments. <i>Geoderma</i> , 1997, 81, 153-225.	5.1	974
4	Similar response of labile and resistant soil organic matter pools to changes in temperature. <i>Nature</i> , 2005, 433, 57-59.	27.8	629
5	Potential for carbon sequestration in European soils: preliminary estimates for five scenarios using results from long-term experiments. <i>Global Change Biology</i> , 1997, 3, 67-79.	9.5	320
6	Projected changes in mineral soil carbon of European croplands and grasslands, 1990-2080. <i>Global Change Biology</i> , 2005, 11, 2141-2152.	9.5	298
7	Meeting Europe's climate change commitments: quantitative estimates of the potential for carbon mitigation by agriculture. <i>Global Change Biology</i> , 2000, 6, 525-539.	9.5	294
8	Integrating plant-soil interactions into global carbon cycle models. <i>Journal of Ecology</i> , 2009, 97, 851-863.	4.0	233
9	Preliminary estimates of the potential for carbon mitigation in European soils through no-till farming. <i>Global Change Biology</i> , 1998, 4, 679-685.	9.5	213
10	Soil salinity decreases global soil organic carbon stocks. <i>Science of the Total Environment</i> , 2013, 465, 267-272.	8.0	162
11	Title is missing!. <i>Nutrient Cycling in Agroecosystems</i> , 2001, 60, 237-252.	2.2	156
12	Salinity effects on carbon mineralization in soils of varying texture. <i>Soil Biology and Biochemistry</i> , 2011, 43, 1908-1916.	8.8	147
13	Climate change cannot be entirely responsible for soil carbon loss observed in England and Wales, 1978-2003. <i>Global Change Biology</i> , 2007, 13, 2605-2609.	9.5	126
14	Quantitative methods to evaluate and compare Soil Organic Matter (SOM) Models. , 1996, , 181-199.		101
15	Estimating changes in Scottish soil carbon stocks using ECOSSE. I. Model description and uncertainties. <i>Climate Research</i> , 2010, 45, 179-192.	1.1	99
16	When is a measured soil organic matter fraction equivalent to a model pool?. <i>European Journal of Soil Science</i> , 2002, 53, 405-416.	3.9	97
17	Critical Evaluation of Models and Their Parameters. <i>Journal of Environmental Quality</i> , 1995, 24, 803-807.	2.0	96
18	Revised estimates of the carbon mitigation potential of UK agricultural land. <i>Soil Use and Management</i> , 2000, 16, 293-295.	4.9	93

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19	How do the heterotrophic and the total soil respiration of an oil palm plantation on peat respond to nitrogen fertilizer application?. <i>Geoderma</i> , 2016, 268, 41-51.	5.1	76
20	Soil carbon, multiple benefits. <i>Environmental Development</i> , 2015, 13, 33-38.	4.1	75
21	A European network of long-term sites for studies on soil organic matter. <i>Soil and Tillage Research</i> , 1998, 47, 263-274.	5.6	70
22	Projected changes in the organic carbon stocks of cropland mineral soils of European Russia and the Ukraine, 1990?2070. <i>Global Change Biology</i> , 2007, 13, 342-356.	9.5	67
23	Simulation of soil nitrogen, nitrous oxide emissions and mitigation scenarios at 3 European cropland sites using the ECOSSE model. <i>Nutrient Cycling in Agroecosystems</i> , 2012, 92, 161-181.	2.2	65
24	Introducing a Decomposition Rate Modifier in the Rothamsted Carbon Model to Predict Soil Organic Carbon Stocks in Saline Soils. <i>Environmental Science & Technology</i> , 2011, 45, 6396-6403.	10.0	60
25	Climate- and crop-responsive emission factors significantly alter estimates of current and future nitrous oxide emissions from fertilizer use. <i>Global Change Biology</i> , 2005, 11, 1522-1536.	9.5	52
26	Overview of holistic application of biogas for small scale farmers in Sub-Saharan Africa. <i>Biomass and Bioenergy</i> , 2014, 70, 4-16.	5.7	51
27	What is the potential for biogas digesters to improve soil fertility and crop production in Sub-Saharan Africa?. <i>Biomass and Bioenergy</i> , 2014, 70, 58-72.	5.7	50
28	Can biogas digesters help to reduce deforestation in Africa?. <i>Biomass and Bioenergy</i> , 2014, 70, 87-98.	5.7	49
29	Spatial and temporal dynamics of soil organic carbon in landscapes of the upper Blue Nile Basin of the Ethiopian Highlands. <i>Agriculture, Ecosystems and Environment</i> , 2016, 218, 190-208.	5.3	48
30	Dis-adoption of Household Biogas technologies in Central Uganda. <i>Energy for Sustainable Development</i> , 2017, 37, 124-132.	4.5	48
31	High-resolution spatial modelling of greenhouse gas emissions from land-use change to energy crops in the United Kingdom. <i>GCB Bioenergy</i> , 2017, 9, 627-644.	5.6	47
32	Incorporating microorganisms as decomposers into models to simulate soil organic matter decomposition. <i>Geoderma</i> , 2005, 129, 139-146.	5.1	46
33	Sustainable use of organic resources for bioenergy, food and water provision in rural Sub-Saharan Africa. <i>Renewable and Sustainable Energy Reviews</i> , 2015, 50, 903-917.	16.4	44
34	Effect of natural and agricultural factors on long-term soil organic matter dynamics in arable soddy-podzolic soils— modeling and observation. <i>Geoderma</i> , 2003, 116, 165-189.	5.1	41
35	Simulation of Salinity Effects on Past, Present, and Future Soil Organic Carbon Stocks. <i>Environmental Science & Technology</i> , 2012, 46, 1624-1631.	10.0	41
36	Tropical wetland ecosystem service assessments in East Africa; A review of approaches and challenges. <i>Environmental Modelling and Software</i> , 2018, 102, 260-273.	4.5	41

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37	Including trace gas fluxes in estimates of the carbon mitigation potential of UK agricultural land. <i>Soil Use and Management</i> , 2000, 16, 251-259.	4.9	33
38	Assessing existing peatland models for their applicability for modelling greenhouse gas emissions from tropical peat soils. <i>Current Opinion in Environmental Sustainability</i> , 2011, 3, 339-349.	6.3	33
39	What is the potential for biogas digesters to improve soil carbon sequestration in Sub-Saharan Africa? Comparison with other uses of organic residues. <i>Biomass and Bioenergy</i> , 2014, 70, 73-86.	5.7	32
40	EuroSOMNET—European database of long-term experiments on soil organic matter: the WWW metadatabase. <i>Journal of Agricultural Science</i> , 2002, 138, 123-134.	1.3	31
41	Comparison of methods for quantifying soil carbon in tropical peats. <i>Geoderma</i> , 2014, 214-215, 177-183.	5.1	30
42	Commentary: Switching to biogas — What effect could it have on indoor air quality and human health?. <i>Biomass and Bioenergy</i> , 2014, 70, 125-129.	5.7	30
43	Nitrogen Challenges and Opportunities for Agricultural and Environmental Science in India. <i>Frontiers in Sustainable Food Systems</i> , 2021, 5, .	3.9	29
44	Impact of partial fuel switch on household air pollutants in sub-Saharan Africa. <i>Environmental Pollution</i> , 2017, 231, 1021-1029.	7.5	26
45	Potential yield challenges to scale-up of zero budget natural farming. <i>Nature Sustainability</i> , 2020, 3, 247-252.	23.7	26
46	Simulation of soil organic carbon response at forest cultivation sequences using ¹³ C measurements. <i>Organic Geochemistry</i> , 2010, 41, 41-54.	1.8	25
47	Nitrous oxide emissions along a gradient of tropical forest disturbance on mineral soils in Sumatra. <i>Agriculture, Ecosystems and Environment</i> , 2015, 214, 107-117.	5.3	25
48	Household energy and recycling of nutrients and carbon to the soil in integrated crop-livestock farming systems: a case study in Kumbursa village, Central Highlands of Ethiopia. <i>GCB Bioenergy</i> , 2017, 9, 1588-1601.	5.6	22
49	Water for small-scale biogas digesters in sub-Saharan Africa. <i>GCB Bioenergy</i> , 2017, 9, 339-357.	5.6	21
50	Economic potential of flexible balloon biogas digester among smallholder farmers: A case study from Uganda. <i>Renewable Energy</i> , 2018, 120, 392-400.	8.9	21
51	Agricultural methane emissions and the potential for mitigation. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2021, 379, 20200451.	3.4	21
52	Soil organic carbon dynamics of croplands in European Russia: estimates from the humus balance model. <i>Regional Environmental Change</i> , 2007, 7, 93-104.	2.9	20
53	Wind farms on undegraded peatlands are unlikely to reduce future carbon emissions. <i>Energy Policy</i> , 2014, 66, 585-591.	8.8	18
54	Are smallholder farmers willing to pay for a flexible balloon biogas digester? Evidence from a case study in Uganda. <i>Energy for Sustainable Development</i> , 2018, 43, 123-129.	4.5	18

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55	A wetland ecosystem service assessment tool; Development and application in a tropical peatland in Uganda. <i>Ecological Indicators</i> , 2019, 103, 434-445.	6.3	16
56	Systems approaches in global change and biogeochemistry research. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2012, 367, 311-321.	4.0	15
57	Soil-derived Nature's Contributions to People and their contribution to the UN Sustainable Development Goals. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200185.	4.0	15
58	Seasonal patterns of greenhouse gas emissions from a forest-to-bog restored site in northern Scotland: Influence of microtopography and vegetation on carbon dioxide and methane dynamics. <i>European Journal of Soil Science</i> , 2021, 72, 1332-1353.	3.9	13
59	Bridging barriers to advance multisector approaches to improve food security, nutrition and population health in Nepal: transdisciplinary perspectives. <i>BMC Public Health</i> , 2019, 19, 961.	2.9	12
60	Treatment of organic resources before soil incorporation in semi-arid regions improves resilience to El Niño, and increases crop production and economic returns. <i>Environmental Research Letters</i> , 2019, 14, 085004.	5.2	12
61	Model inter-comparison between statistical and dynamic model assessments of the long-term stability of blanket peat in Great Britain (1940-2099). <i>Climate Research</i> , 2010, 45, 227-248.	1.1	12
62	Moving the British cattle herd. <i>Nature</i> , 1996, 381, 15-15.	27.8	11
63	Simulation of soil carbon changes due to land use change in urban areas in China. <i>Frontiers of Environmental Science and Engineering</i> , 2013, 7, 255-266.	6.0	10
64	Constructing regional scenarios for sustainable agriculture in European Russia and Ukraine for 2000 to 2070. <i>Regional Environmental Change</i> , 2007, 7, 63-77.	2.9	9
65	The dynamics of Household labor allocation to biogas production, farm and non-farm activities in central Uganda. <i>Renewable Energy</i> , 2019, 142, 461-467.	8.9	9
66	The Tropical Peatland Plantation-Carbon Assessment Tool: estimating CO2 emissions from tropical peat soils under plantations. <i>Mitigation and Adaptation Strategies for Global Change</i> , 2014, 19, 863-885.	2.1	8
67	The role of soils in provision of energy. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2021, 376, 20200180.	4.0	8
68	Type and extent of trans-disciplinary co-operation to improve food security, health and household environment in low and middle income countries: systematic review. <i>BMC Public Health</i> , 2016, 16, 1093.	2.9	7
69	Evaluation of the <sc>ECOSSE</sc> model to predict heterotrophic soil respiration by direct measurements. <i>European Journal of Soil Science</i> , 2017, 68, 384-393.	3.9	7
70	Projecting Soil C Under Future Climate and Land-Use Scenarios (Modeling)., 2018, , 281-309.		7
71	Avoid constructing wind farms on peat. <i>Nature</i> , 2012, 489, 33-33.	27.8	6
72	Estimating the effect of nitrogen fertilizer on the greenhouse gas balance of soils in Wales under current and future climate. <i>Regional Environmental Change</i> , 2016, 16, 2357-2368.	2.9	6

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73	How does replacing natural forests with rubber and oil palm plantations affect soil respiration and methane fluxes?. <i>Ecosphere</i> , 2020, 11, e03284.	2.2	5
74	Environmental and financial benefits of improved cookstove technologies in the central highlands of Ethiopia. <i>Biomass and Bioenergy</i> , 2021, 150, 106089.	5.7	5
75	Carbon Sequestration and Greenhouse Gas Fluxes from Cropland Soils – Climate Opportunities and Threats. <i>Environmental Science and Engineering</i> , 2009, , 81-111.	0.2	5
76	Mathematical Modeling of Greenhouse Gas Emissions from Agriculture for Different End Users. <i>Advances in Agricultural Systems Modeling</i> , 0, , 197-227.	0.3	4
77	Integrated soil fertility management for sustainable teff (<i>Eragrostis tef</i>) production in Halaba, Southern Ethiopia. <i>Cogent Food and Agriculture</i> , 2018, 4, 1519008.	1.4	4
78	Seasonal variability of resources: The unexplored adversary of biogas use in rural Ethiopia. <i>Current Research in Environmental Sustainability</i> , 2021, 3, 100072.	3.5	4
79	A New Approach Using Modeling to Interpret Measured Changes in Soil Organic Carbon in Forests; The Case of a 200 Year Pine Chronosequence on a Podzolic Soil in Scotland. <i>Frontiers in Environmental Science</i> , 2020, 8, .	3.3	4
80	Changes in Soil Properties Following the Establishment of Exclosures in Ethiopia: A Meta-Analysis. <i>Frontiers in Ecology and Evolution</i> , 2022, 10, .	2.2	4
81	Testing the adequacy of measured data for evaluating nitrogen turnover models by the dot-to-dot method. <i>European Journal of Soil Science</i> , 2003, 54, 175-186.	3.9	3
82	Modeling long-term attainable soil organic carbon sequestration across the highlands of Ethiopia. <i>Environment, Development and Sustainability</i> , 0, , 1.	5.0	3
83	Using a Rotational Modelling System to Explore the Effect of Straw Incorporation on the Efficiency of Nitrogen Use. , 1999, , 58-64.		2
84	Weekly Weather Generation for a Nitrogen Turnover Model. <i>Nutrient Cycling in Agroecosystems</i> , 2005, 73, 257-266.	2.2	2
85	An explicit and computationally efficient method to initialise first-order-based soil organic matter models – The Geometric Series Solution (GSS). <i>Ecological Modelling</i> , 2013, 267, 48-53.	2.5	2
86	A systems model describing the impact of organic resource use on farming households in low to middle income countries. <i>Agricultural Systems</i> , 2020, 184, 102895.	6.1	2
87	Impacts of different treatment methods for cattle manure on the spread of faecal indicator organisms from soil to lettuce in Nigeria. <i>Journal of Applied Microbiology</i> , 2022, 132, 618-632.	3.1	2
88	AGRICULTURAL CARBON MITIGATION OPTIONS IN EUROPE: IMPROVED ESTIMATES AND THE GLOBAL PERSPECTIVE. <i>Acta Agronomica Hungarica: an International Multidisciplinary Journal in Agricultural Science</i> , 2000, 48, 209-216.	0.2	1
89	A Simple Modelling Framework for Shallow Subsurface Water Storage and Flow. <i>Water (Switzerland)</i> , 2019, 11, 1725.	2.7	1
90	Assessing soil carbon dioxide and methane fluxes from a Scots pine raised bog-edge-woodland. <i>Journal of Environmental Management</i> , 2022, 302, 114061.	7.8	1

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91	Effect of plant species, nitrogen fertilizer and grass age on the dynamics of intra-aggregate SOM. <i>Soil Biology and Biochemistry</i> , 2011, 43, 1104-1107.	8.8	0
92	A simple approach to modelling the soil water budget in cool temperate mineral topsoils. <i>Environmental Modelling and Software</i> , 2020, 127, 104700.	4.5	0
93	Temporal Variability in Heterotrophic Carbon Dioxide Emissions From A Drained Tropical Peatland in Uganda. <i>Frontiers in Soil Science</i> , 0, 2, .	2.2	0