John Koestel

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/3942370/publications.pdf

Version: 2024-02-01

46	2,360	201575 27	233338 45
papers	citations	h-index	g-index

59	59	59	2373
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Pedotransfer Functions in Earth System Science: Challenges and Perspectives. Reviews of Geophysics, 2017, 55, 1199-1256.	9.0	316
2	Influence of soil, land use and climatic factors on the hydraulic conductivity of soil. Hydrology and Earth System Sciences, 2013, 17, 5185-5195.	1.9	174
3	Understanding Preferential Flow in the Vadose Zone: Recent Advances and Future Prospects. Vadose Zone Journal, 2016, 15, 1-11.	1.3	165
4	Microbial spatial footprint as a driver of soil carbon stabilization. Nature Communications, 2019, 10, 3121.	5.8	124
5	Relations between macropore network characteristics and the degree of preferential solute transport. Hydrology and Earth System Sciences, 2014, 18, 5255-5269.	1.9	110
6	Connectivity and percolation of structural pore networks in a cultivated silt loam soil quantified by X-ray tomography. Geoderma, 2017, 287, 71-79.	2.3	106
7	Imaging and quantification of preferential solute transport in soil macropores. Water Resources Research, 2014, 50, 4357-4378.	1.7	84
8	A framework for modelling soil structure dynamics induced by biological activity. Global Change Biology, 2020, 26, 5382-5403.	4.2	75
9	Effects of subsoil compaction on hydraulic properties and preferential flow in a Swedish clay soil. Soil and Tillage Research, 2016, 156, 91-98.	2.6	74
10	What determines the strength of preferential transport in undisturbed soil under steady-state flow?. Geoderma, 2014, 217-218, 144-160.	2.3	62
11	Using boosted regression trees to explore key factors controlling saturated and nearâ€saturated hydraulic conductivity. European Journal of Soil Science, 2015, 66, 744-756.	1.8	59
12	SoilJ: An ImageJ Plugin for the Semiautomatic Processing of Threeâ€Dimensional Xâ€ray Images of Soils. Vadose Zone Journal, 2018, 17, 1-7.	1.3	54
13	Scale and REV analyses for porosity and pore connectivity measures in undisturbed soil. Geoderma, 2020, 366, 114206.	2.3	54
14	Estimating the Permeability of Naturally Structured Soil From Percolation Theory and Pore Space Characteristics Imaged by Xâ€Ray. Water Resources Research, 2018, 54, 9255-9263.	1.7	52
15	Post-tillage evolution of structural pore space and saturated and near-saturated hydraulic conductivity in a clay loam soil. Soil and Tillage Research, 2017, 165, 161-168.	2.6	51
16	Comparison of Heterogeneous Transport Processes Observed with Electrical Resistivity Tomography in Two Soils. Vadose Zone Journal, 2010, 9, 336-349.	1.3	49
17	Links between soil properties and steadyâ€state solute transport through cultivated topsoil at the field scale. Water Resources Research, 2013, 49, 790-807.	1.7	47
18	Nanoplastic Transport in Soil via Bioturbation by Lumbricus terrestris. Environmental Science & Technology, 2021, 55, 16423-16433.	4.6	46

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19	Long-term effects of grass-clover leys on the structure of a silt loam soil in a cold climate. Agriculture, Ecosystems and Environment, 2017, 247, 319-328.	2.5	45
20	Evaluation of Nonparametric Shape Measures for Solute Breakthrough Curves. Vadose Zone Journal, 2011, 10, 1261-1275.	1.3	42
21	Soil properties and susceptibility to preferential solute transport in tilled topsoil at the catchment scale. Journal of Hydrology, 2013, 492, 190-199.	2.3	41
22	Noninvasive 3â€Ð Transport Characterization in a Sandy Soil Using ERT: 1. Investigating the Validity of ERTâ€derived Transport Parameters. Vadose Zone Journal, 2009, 8, 711-722.	1.3	40
23	Preferential Transport in Macropores is Reduced by Soil Organic Carbon. Vadose Zone Journal, 2016, 15, 1-7.	1.3	40
24	Spatial patterns of extracellular enzymes: Combining X-ray computed micro-tomography and 2D zymography. Soil Biology and Biochemistry, 2019, 135, 411-419.	4.2	40
25	Quantification of the structure evolution in a garden soil over the course of two years. Geoderma, 2019, 338, 597-609.	2.3	37
26	Relations between soil organic carbon content and the pore size distribution for an arable topsoil with large variations in soil properties. European Journal of Soil Science, 2022, 73, .	1.8	34
27	Dynamic upscaling of decomposition kinetics for carbon cycling models. Geoscientific Model Development, 2020, 13, 1399-1429.	1.3	30
28	Preferential Flow in a Pedological Perspective. , 2012, , 75-120.		29
29	Noninvasive 3â€Ð Transport Characterization in a Sandy Soil Using ERT: 2. Transport Process Inference. Vadose Zone Journal, 2009, 8, 723-734.	1.3	28
30	Imaging Brilliant Blue Stained Soil by Means of Electrical Resistivity Tomography. Vadose Zone Journal, 2009, 8, 963-975.	1.3	25
31	Xâ€ray computed tomography to predict soil N₂O production via bacterial denitrification and N₂O emission in contrasting bioenergy cropping systems. GCB Bioenergy, 2018, 10, 894-909.	2.5	24
32	ThreeâEDimensional Printing of Macropore Networks of an Undisturbed Soil Sample. Vadose Zone Journal, 2015, 14, 1-10.	1.3	21
33	Soil structure recovery following compaction: Shortâ€term evolution of soil physical properties in a loamy soil. Soil Science Society of America Journal, 2021, 85, 1002-1020.	1.2	20
34	Effects of tillage and liming on macropore networks derived from Xâ€ray tomography images of a silty clay soil. Soil Use and Management, 2018, 34, 197-205.	2.6	18
35	Percolation theory applied to soil tomography. Geoderma, 2020, 357, 113959.	2.3	15
36	Impacts of off-road traffic on soil physical properties of forest clear-cuts: X-ray and laboratory analysis. Scandinavian Journal of Forest Research, 2018, 33, 166-177.	0.5	13

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37	Approaches to delineate aggregates in intact soil using X-ray imaging. Geoderma, 2021, 402, 115360.	2.3	13
38	Oxalate-extractable aluminum alongside carbon inputs may be a major determinant for organic carbon content in agricultural topsoils in humid continental climate. Geoderma, 2021, 402, 115345.	2.3	12
39	Reply to â€˜Comment on â€œUnderstanding preferential flow in the vadose zone: Recent advances and future prospectsâ€•by N. Jarvis et al.â€™. Vadose Zone Journal, 2017, 16, 1-4.	1.3	11
40	Assessing strategies to mitigate phosphorus leaching from drained clay soils. Ambio, 2018, 47, 114-123.	2.8	9
41	Changes in pore networks and readily dispersible soil following structure liming of clay soils. Geoderma, 2021, 390, 114948.	2.3	8
42	Quantitative imaging of the 3-D distribution of cation adsorption sites in undisturbed soil. Soil, 2017, 3, 177-189.	2.2	6
43	Quantifying Physical Properties of Three Sphagnum â€Based Growing Media as Affected by Dryingâ€“Wetting Cycles. Vadose Zone Journal, 2019, 18, 190033.	1.3	6
44	Extreme gas production in anthropogenic fibrous sediments: An overlooked biogenic source of greenhouse gas emissions. Science of the Total Environment, 2021, 781, 146772.	3.9	4
45	Potential of combined neutron and Xâ€ray imaging to quantify local carbon contents in soil. European Journal of Soil Science, 0, , .	1.8	3
46	Reply to: â€œVariables in the effect of land use on soil extrapore enzymatic activity and carbon stabilizationâ€•by Glenn (2020). Nature Communications, 2020, 11, 6427.	5.8	3