

Kai Uwe Totsche

List of Publications by Year in descending order

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151
papers

6,498
citations

71102

41
h-index

79698

73
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198
all docs

198
docs citations

198
times ranked

6831
citing authors

#	ARTICLE	IF	CITATIONS
1	Microaggregates in soils. <i>Journal of Plant Nutrition and Soil Science</i> , 2018, 181, 104-136.	1.9	567
2	Grazing effects on soil chemical and physical properties in a semiarid steppe of Inner Mongolia (P.R.) <i>Tj ETQqO 0 0 rgBT /Overlock 10 Tf 5</i>	9.1	372
3	Characterization of Ferrihydrite-Soil Organic Matter Coprecipitates by X-ray Diffraction and Mössbauer Spectroscopy. <i>Environmental Science & Technology</i> , 2008, 42, 7891-7897.	10.0	268
4	Fractionation of Organic Matter Due to Reaction with Ferrihydrite: Coprecipitation versus Adsorption. <i>Environmental Science & Technology</i> , 2011, 45, 527-533.	10.0	217
5	Specific surface area of clay minerals: Comparison between atomic force microscopy measurements and bulk-gas (N ₂) and -liquid (EGME) adsorption methods. <i>Applied Clay Science</i> , 2011, 53, 20-26.	5.2	186
6	Predominance of Cand. Patescibacteria in Groundwater Is Caused by Their Preferential Mobilization From Soils and Flourishing Under Oligotrophic Conditions. <i>Frontiers in Microbiology</i> , 2019, 10, 1407.	3.5	160
7	Biogeochemical interfaces in soil: The interdisciplinary challenge for soil science. <i>Journal of Plant Nutrition and Soil Science</i> , 2010, 173, 88-99.	1.9	143
8	Condensation degree of burnt peat and plant residues and the reliability of solid-state VACP MAS 13C NMR spectra obtained from pyrogenic humic material. <i>Organic Geochemistry</i> , 2005, 36, 1359-1377.	1.8	129
9	Dissolved Organic Matterâ€Enhanced Retention of Polycyclic Aromatic Hydrocarbons in Soil Miscible Displacement Experiments. <i>Journal of Environmental Quality</i> , 1997, 26, 1090-1100.	2.0	112
10	Calcite Biomineralization by Bacterial Isolates from the Recently Discovered Pristine Karstic Herrenberg Cave. <i>Applied and Environmental Microbiology</i> , 2012, 78, 1157-1167.	3.1	112
11	Small scale spatial variability of organic carbon stocks in litter and solum of a forested Luvisol. <i>Geoderma</i> , 2006, 136, 631-642.	5.1	110
12	Sorption of polycyclic aromatic hydrocarbons to mineral surfaces. <i>European Journal of Soil Science</i> , 2007, 58, 918-931.	3.9	106
13	Carbon flow into microbial and fungal biomass as a basis for the belowground food web of agroecosystems. <i>Pedobiologia</i> , 2012, 55, 111-119.	1.2	98
14	How Deep Can Surface Signals Be Traced in the Critical Zone? Merging Biodiversity with Biogeochemistry Research in a Central German Muschelkalk Landscape. <i>Frontiers in Earth Science</i> , 2016, 4, .	1.8	98
15	STXM and NanoSIMS Investigations on EPS Fractions before and after Adsorption to Goethite. <i>Environmental Science & Technology</i> , 2013, 47, 3158-3166.	10.0	95
16	Environmental selection shapes the formation of near-surface groundwater microbiomes. <i>Water Research</i> , 2020, 170, 115341.	11.3	95
17	Reduction of ferrihydrite with adsorbed and coprecipitated organic matter: microbial reduction by <i>Geobacter bremensis</i> vs. abiotic reduction by Na-dithionite. <i>Biogeosciences</i> , 2014, 11, 4953-4966.	3.3	92
18	Identification of Mn(II)-Oxidizing Bacteria from a Low-pH Contaminated Former Uranium Mine. <i>Applied and Environmental Microbiology</i> , 2014, 80, 5086-5097.	3.1	91

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19	Large Fractions of CO ₂ -Fixing Microorganisms in Pristine Limestone Aquifers Appear To Be Involved in the Oxidation of Reduced Sulfur and Nitrogen Compounds. <i>Applied and Environmental Microbiology</i> , 2015, 81, 2384-2394.	3.1	86
20	Biodegradation of ferrihydrite-associated organic matter. <i>Biogeochemistry</i> , 2014, 119, 45-50.	3.5	80
21	Flow and Reactivity Effects on Dissolved Organic Matter Transport in Soil Columns. <i>Soil Science Society of America Journal</i> , 1998, 62, 1268-1274.	2.2	77
22	Physicochemical factors controlling the release of dissolved organic carbon from columns of forest subsoils. <i>European Journal of Soil Science</i> , 2002, 53, 311-320.	3.9	76
23	Functional diversity of microbial communities in pristine aquifers inferred by PLFA- and sequencing-based approaches. <i>Biogeosciences</i> , 2017, 14, 2697-2714.	3.3	72
24	Arsenic strongly associates with ferrihydrite colloids formed in a soil effluent. <i>Environmental Pollution</i> , 2011, 159, 1398-1405.	7.5	71
25	How do long-term development and periodical changes of river-floodplain systems affect the fate of contaminants? Results from European rivers. <i>Environmental Pollution</i> , 2009, 157, 3336-3346.	7.5	70
26	Interaction of minerals, organic matter, and microorganisms during biogeochemical interface formation as shown by a series of artificial soil experiments. <i>Biology and Fertility of Soils</i> , 2017, 53, 9-22.	4.3	67
27	Pesticide displacement along preferential flow pathways in a Brazilian Oxisol. <i>Geoderma</i> , 2002, 110, 63-86.	5.1	62
28	Vegetation impacts soil water content patterns by shaping canopy water fluxes and soil properties. <i>Hydrological Processes</i> , 2017, 31, 3783-3795.	2.6	62
29	The modeling of reactive solute transport with sorption to mobile and immobile sorbents: 1. Experimental evidence and model development. <i>Water Resources Research</i> , 1996, 32, 1611-1622.	4.2	61
30	Selective transport of plant root-associated bacterial populations in agricultural soils upon snowmelt. <i>Soil Biology and Biochemistry</i> , 2014, 69, 187-196.	8.8	59
31	Pathways of biogenically excreted organic matter into soil aggregates. <i>Soil Biology and Biochemistry</i> , 2022, 164, 108483.	8.8	59
32	Aquifer configuration and geostructural links control the groundwater quality in thin-bedded carbonate-siliciclastic alternations of the Hainich CZE, central Germany. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 6091-6116.	4.9	58
33	Fate of anthracene in contaminated soil: transport and biochemical transformation under unsaturated flow conditions. <i>European Journal of Soil Science</i> , 2002, 53, 71-81.	3.9	51
34	Attached and Suspended Denitrifier Communities in Pristine Limestone Aquifers Harbor High Fractions of Potential Autotrophs Oxidizing Reduced Iron and Sulfur Compounds. <i>Microbial Ecology</i> , 2017, 74, 264-277.	2.8	50
35	Nitrogen Loss from Pristine Carbonate-Rock Aquifers of the Hainich Critical Zone Exploratory (Germany) Is Primarily Driven by Chemolithoautotrophic Anammox Processes. <i>Frontiers in Microbiology</i> , 2017, 8, 1951.	3.5	48
36	Influence of geogenic CO ₂ on mineral and organic soil constituents on a mofette site in the NW Czech Republic. <i>European Journal of Soil Science</i> , 2011, 62, 572-580.	3.9	47

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37	Desorption of Polycyclic Aromatic Hydrocarbons from Soil in the Presence of Dissolved Organic Matter: Effect of Solution Composition and Aging. <i>Journal of Environmental Quality</i> , 2000, 29, 906-916.	2.0	46
38	Detection of non-equilibrium contaminant release in soil columns: Delineation of experimental conditions by numerical simulations. <i>Journal of Plant Nutrition and Soil Science</i> , 2003, 166, 475-483.	1.9	46
39	A rapid and efficient determination of natural estrogens in soils by pressurised liquid extraction and gas chromatography–mass spectrometry. <i>Chemosphere</i> , 2008, 71, 954-960.	8.2	45
40	Carbon isotopes of dissolved inorganic carbon reflect utilization of different carbon sources by microbial communities in two limestone aquifer assemblages. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 4283-4300.	4.9	45
41	Evaluation of Fluoride-Induced Metal Mobilization in Soil Columns. <i>Journal of Environmental Quality</i> , 2000, 29, 454-459.	2.0	44
42	Ferrihydrite-associated organic matter (OM) stimulates reduction by <i>Shewanella oneidensis</i> MR-1 and a complex microbial consortia. <i>Biogeosciences</i> , 2017, 14, 5171-5188.	3.3	44
43	Release of Polycyclic Aromatic Hydrocarbons, Dissolved Organic Carbon, and Suspended Matter from Disturbed NAPL-Contaminated Gravelly Soil Material. <i>Vadose Zone Journal</i> , 2006, 5, 469-479.	2.2	43
44	Earthworm mucus contributes to the formation of organo-mineral associations in soil. <i>Soil Biology and Biochemistry</i> , 2020, 145, 107785.	8.8	43
45	A simple method to synthesize birnessite at ambient pressure and temperature. <i>Geoderma</i> , 2013, 193-194, 117-121.	5.1	42
46	Oxygen availability and distance to surface environments determine community composition and abundance of ammonia-oxidizing prokaryotes in two superimposed pristine limestone aquifers in the Hainich region, Germany. <i>FEMS Microbiology Ecology</i> , 2014, 90, 39-53.	2.7	42
47	Influence of dissolved and colloidal phase humic substances on the transport of hydrophobic organic contaminants in soils. <i>Physics and Chemistry of the Earth</i> , 1998, 23, 179-185.	0.3	39
48	Single Event-Driven Export of Polycyclic Aromatic Hydrocarbons and Suspended Matter from Coal Tar-Contaminated Soil. <i>Vadose Zone Journal</i> , 2007, 6, 233-243.	2.2	38
49	Andic properties in soils developed from nonvolcanic materials in Central Bhutan. <i>Journal of Plant Nutrition and Soil Science</i> , 2005, 168, 703-713.	1.9	37
50	Effective rates of heavy metal release from alkaline wastes – Quantified by column outflow experiments and inverse simulations. <i>Journal of Contaminant Hydrology</i> , 2008, 101, 53-66.	3.3	37
51	Model study on sorption of polycyclic aromatic hydrocarbons to goethite. <i>Journal of Colloid and Interface Science</i> , 2009, 330, 244-249.	9.4	37
52	Estimation of clay content from easily measurable water content of air-dried soil. <i>Journal of Plant Nutrition and Soil Science</i> , 2012, 175, 367-376.	1.9	37
53	Mobile Organic Sorbent Affected Contaminant Transport in Soil: Numerical Case Studies for Enhanced and Reduced Mobility. <i>Vadose Zone Journal</i> , 2004, 3, 352-367.	2.2	36
54	Transport and anaerobic biodegradation of propylene glycol in gravel-rich soil materials. <i>Journal of Contaminant Hydrology</i> , 2006, 85, 271-286.	3.3	36

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55	Size- and Composition-Dependent Toxicity of Synthetic and Soil-Derived Fe Oxide Colloids for the Nematode <i>Caenorhabditis elegans</i> . <i>Environmental Science & Technology</i> , 2015, 49, 544-552.	10.0	36
56	Candidate Brocadiales dominates C, N and S cycling in anoxic groundwater of a pristine limestone-fracture aquifer. <i>Journal of Proteomics</i> , 2017, 152, 153-160.	2.4	36
57	Dissolved Inorganic Contaminants in a Floodplain Soil: Comparison of In Situ Soil Solutions and Laboratory Methods. <i>Water, Air, and Soil Pollution</i> , 2010, 209, 489-500.	2.4	35
58	Formation of mineral-mineral and organo-mineral composite building units from microaggregate-forming materials including microbially produced extracellular polymeric substances. <i>European Journal of Soil Science</i> , 2019, 70, 604-615.	3.9	35
59	Groundwater bacterial communities evolve over time in response to recharge. <i>Water Research</i> , 2021, 201, 117290.	11.3	35
60	Deterministic and stochastic modelling of water, heat and nitrogen dynamics on different scales with WHNSIM. <i>Journal of Contaminant Hydrology</i> , 1995, 20, 265-284.	3.3	34
61	The modeling of reactive solute transport with sorption to mobile and immobile sorbents: 2. Model discussion and numerical simulation. <i>Water Resources Research</i> , 1996, 32, 1623-1634.	4.2	34
62	Advanced spectroscopic, microscopic, and tomographic characterization techniques to study biogeochemical interfaces in soil. <i>Journal of Soils and Sediments</i> , 2012, 12, 3-23.	3.0	34
63	The endolithic bacterial diversity of shallow bedrock ecosystems. <i>Science of the Total Environment</i> , 2019, 679, 35-44.	8.0	34
64	Impact of optimized mixing heights on simulated regional atmospheric transport of CO ₂ . <i>Atmospheric Chemistry and Physics</i> , 2014, 14, 7149-7172.	4.9	33
65	Structure and composition of Fe-OM co-precipitates that form in soil-derived solutions. <i>Geochimica Et Cosmochimica Acta</i> , 2015, 169, 167-183.	3.9	33
66	Iron species in soils on a mofette site studied by Fe K-edge X-ray absorption near-edge spectroscopy. <i>Chemical Geology</i> , 2012, 332-333, 116-123.	3.3	31
67	PAH mobility in contaminated industrial soils: a Markov chain approach to the spatial variability of soil properties and PAH levels. <i>Geoderma</i> , 2001, 102, 371-389.	5.1	30
68	Spatial variability of topsoils and vegetation in a grazed steppe ecosystem in Inner Mongolia (PR) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 2	1.9	30
69	Mobility of the growth promoters trenbolone and melengestrol acetate in agricultural soil: column studies. <i>Science of the Total Environment</i> , 2004, 326, 225-237.	8.0	29
70	Contaminants at Former Manufactured Gas Plants: Sources, Properties, and Processes. <i>Critical Reviews in Environmental Science and Technology</i> , 2011, 41, 1883-1969.	12.8	29
71	Fueling Diversity in the Subsurface: Composition and Age of Dissolved Organic Matter in the Critical Zone. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	29
72	Archaeal Diversity and CO ₂ Fixers in Carbonate-/Siliciclastic-Rock Groundwater Ecosystems. <i>Archaea</i> , 2017, 2017, 1-13.	2.3	28

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73	Complex food webs coincide with high genetic potential for chemolithoautotrophy in fractured bedrock groundwater. <i>Water Research</i> , 2020, 170, 115306.	11.3	28
74	Fast microbial reduction of ferrihydrite colloids from a soil effluent. <i>Geochimica Et Cosmochimica Acta</i> , 2012, 77, 444-456.	3.9	27
75	Difference in PAH release processes from tar-oil contaminated soil materials with similar contamination history. <i>Chemie Der Erde</i> , 2009, 69, 109-124.	2.0	26
76	First insights into the living groundwater mycobiome of the terrestrial biogeosphere. <i>Water Research</i> , 2018, 145, 50-61.	11.3	26
77	Multi-directional flow dynamics shape groundwater quality in sloping bedrock strata. <i>Journal of Hydrology</i> , 2020, 580, 124291.	5.4	26
78	Superimposed Pristine Limestone Aquifers with Marked Hydrochemical Differences Exhibit Distinct Fungal Communities. <i>Frontiers in Microbiology</i> , 2016, 7, 666.	3.5	24
79	¹⁴ C-Free Carbon Is a Major Contributor to Cellular Biomass in Geochemically Distinct Groundwater of Shallow Sedimentary Bedrock Aquifers. <i>Water Resources Research</i> , 2019, 55, 2104-2121.	4.2	24
80	Event-driven dynamics of the total mobile inventory in undisturbed soil account for significant fluxes of particulate organic carbon. <i>Science of the Total Environment</i> , 2021, 756, 143774.	8.0	24
81	Nanosized Ferrihydrite Colloids Facilitate Microbial Iron Reduction under Flow Conditions. <i>Geomicrobiology Journal</i> , 2010, 27, 123-129.	2.0	23
82	Selective transport and retention of organic matter and bacteria shapes initial pedogenesis in artificial soil - A two-layer column study. <i>Geoderma</i> , 2018, 325, 37-48.	5.1	23
83	Simulation of carrier-facilitated transport of phenanthrene in a layered soil profile. <i>Journal of Contaminant Hydrology</i> , 2002, 56, 209-225.	3.3	22
84	Preferential flow and aging of NAPL in the unsaturated soil zone of a hazardous waste site: implications for contaminant transport. <i>Journal of Plant Nutrition and Soil Science</i> , 2003, 166, 102-110.	1.9	22
85	Microbial ecology of biogeochemical interfaces - diversity, structure, and function of microhabitats in soil. <i>FEMS Microbiology Ecology</i> , 2013, 86, 1-2.	2.7	22
86	Integrating Aquatic and Terrestrial Perspectives to Improve Insights Into Organic Matter Cycling at the Landscape Scale. <i>Frontiers in Earth Science</i> , 2019, 7, .	1.8	22
87	Organic Matter from Redoximorphic Soils Accelerates and Sustains Microbial Fe(III) Reduction. <i>Environmental Science & Technology</i> , 2021, 55, 10821-10831.	10.0	22
88	A ³⁰ S-NanoSIMS study on the distribution of soil organic matter, iron and manganese in a nodule from a ³⁰ S-tagnosol. <i>European Journal of Soil Science</i> , 2014, 65, 684-692.	3.9	21
89	CP dynamics of heterogeneous organic material: characterization of molecular domains in coals. <i>Solid State Nuclear Magnetic Resonance</i> , 2004, 25, 252-266.	2.3	19
90	Synthesis of cryptomelane- and birnessite-type manganese oxides at ambient pressure and temperature. <i>Journal of Colloid and Interface Science</i> , 2013, 405, 44-50.	9.4	19

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91	Citrate influences microbial Fe hydroxide reduction via a dissolution–disaggregation mechanism. <i>Geochimica Et Cosmochimica Acta</i> , 2014, 139, 434-446.	3.9	19
92	Kinetic control of contaminant release from NAPLs – Experimental evidence. <i>Environmental Pollution</i> , 2013, 179, 315-325.	7.5	18
93	Phagotrophic Protist Diversity in the Groundwater of a Karstified Aquifer – Morphological and Molecular Analysis. <i>Journal of Eukaryotic Microbiology</i> , 2013, 60, 467-479.	1.7	18
94	An objective prior error quantification for regional atmospheric inverse applications. <i>Biogeosciences</i> , 2015, 12, 7403-7421.	3.3	17
95	Characterisation of Andosols from Laacher See tephra by wet-chemical and spectroscopic techniques (FTIR, 27Al-, 29Si-NMR). <i>Chemical Geology</i> , 2014, 363, 13-21.	3.3	16
96	Colloidal Stability and Mobility of Extracellular Polymeric Substance Amended Hematite Nanoparticles. <i>Vadose Zone Journal</i> , 2017, 16, 1-10.	2.2	16
97	Disentangling the root- and detritus-based food chain in the micro-food web of an arable soil by plant removal. <i>PLoS ONE</i> , 2017, 12, e0180264.	2.5	16
98	Selective successional transport of bacterial populations from rooted agricultural topsoil to deeper layers upon extreme precipitation events. <i>Soil Biology and Biochemistry</i> , 2018, 124, 168-178.	8.8	16
99	Modeling the formation of soil microaggregates. <i>Computers and Geosciences</i> , 2019, 127, 36-43.	4.2	16
100	Fluoro-mobilization of metals in a Slovak forest soil affected by the emissions of an aluminum smelter. <i>Journal of Plant Nutrition and Soil Science</i> , 2000, 163, 503-508.	1.9	15
101	Determination of effective release rates of polycyclic aromatic hydrocarbons and dissolved organic carbon by column outflow experiments. <i>European Journal of Soil Science</i> , 2005, 56, 050912034650044.	3.9	14
102	In situ production of core and intact bacterial and archaeal tetraether lipids in groundwater. <i>Organic Geochemistry</i> , 2018, 126, 1-12.	1.8	14
103	Electrical resistivity tomography as monitoring tool for unsaturated zone transport: an example of preferential transport of deicing chemicals. <i>Environmental Science and Pollution Research</i> , 2014, 21, 8964-8980.	5.3	13
104	Iron encrustations on filamentous algae colonized by <i>Gallionella</i> -related bacteria in a metal-polluted freshwater stream. <i>Biogeosciences</i> , 2015, 12, 5277-5289.	3.3	13
105	Schwertmannite formation at cell junctions by a new filament-forming Fe(II)-oxidizing isolate affiliated with the novel genus <i>Acidithrix</i> . <i>Microbiology (United Kingdom)</i> , 2016, 162, 62-71.	1.8	13
106	Mobile Organic Sorbent Affected Contaminant Transport in Soil: Numerical Case Studies for Enhanced and Reduced Mobility. <i>Vadose Zone Journal</i> , 2004, 3, 352-367.	2.2	13
107	Release and mobility of polycyclic aromatic hydrocarbons and iron-cyanide complexes in contaminated soil. <i>Journal of Plant Nutrition and Soil Science</i> , 2001, 164, 643-649.	1.9	12
108	Degradation of deicing chemicals affects the natural redox system in airfield soils. <i>Environmental Science and Pollution Research</i> , 2014, 21, 9036-9053.	5.3	11

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109	Discrete-Continuum Multiphase Model for Structure Formation in Soils Including Electrostatic Effects. <i>Frontiers in Environmental Science</i> , 2018, 6, .	3.3	11
110	Application of a Cellular Automaton Method to Model the Structure Formation in Soils Under Saturated Conditions: A Mechanistic Approach. <i>Frontiers in Environmental Science</i> , 2019, 7, .	3.3	11
111	How water connectivity and substrate supply shape the turnover of organic matter – Insights from simulations at the scale of microaggregates. <i>Geoderma</i> , 2022, 405, 115394.	5.1	11
112	How electron flow controls contaminant dynamics. <i>Environmental Science & Technology</i> , 2010, 44, 3-6.	10.0	10
113	The mechanisms of gravity-constrained aggregation in natural colloidal suspensions. <i>Journal of Colloid and Interface Science</i> , 2021, 597, 126-136.	9.4	10
114	Desorption controlled mobility and intrinsic biodegradation of anthracene in unsaturated soil. <i>Physics and Chemistry of the Earth</i> , 1999, 24, 549-555.	0.3	9
115	Subsurface aquifer heterogeneities of Lower Triassic clastic sediments in central Germany. <i>Marine and Petroleum Geology</i> , 2018, 97, 209-222.	3.3	9
116	Sorption of an acidic herbicide on synthetic iron oxides and soils: sorption isotherms. <i>Science of the Total Environment</i> , 1992, 123-124, 121-131.	8.0	8
117	Kinetic control of contaminant release from NAPLs – Information potential of concentration time profiles. <i>Environmental Pollution</i> , 2013, 179, 301-314.	7.5	8
118	Transport and degradation of propylene glycol in the vadose zone: model development and sensitivity analysis. <i>Environmental Science and Pollution Research</i> , 2013, 21, 9054-66.	5.3	8
119	Heterogenität der Bodeneigenschaften und der Schadstoffbelastung eines ehemaligen Gaswerkstandortes. <i>Grundwasser</i> , 1998, 3, 175-182.	1.4	7
120	Modeling the kinetics of microbial degradation of deicing chemicals in porous media under flow conditions. <i>Environmental Pollution</i> , 2012, 168, 96-106.	7.5	7
121	The composition of mobile matter in a floodplain topsoil: A comparative study with soil columns and field lysimeters. <i>Journal of Plant Nutrition and Soil Science</i> , 2016, 179, 18-28.	1.9	7
122	Quantification of pH-dependent speciation of organic compounds with spectroscopy and chemometrics. <i>Chemosphere</i> , 2017, 172, 175-184.	8.2	7
123	Steel pickling rinse water sludge: Concealed formation of Cr(VI) driven by the enhanced oxidation of nitrite. <i>Journal of Environmental Chemical Engineering</i> , 2017, 5, 2163-2170.	6.7	7
124	Multi-species inversion and IAGOS airborne data for a better constraint of continental-scale fluxes. <i>Atmospheric Chemistry and Physics</i> , 2018, 18, 9225-9241.	4.9	7
125	Glucose-stimulation of natural microbial activity changes composition, structure and engineering properties of sandy and loamy soils. <i>Engineering Geology</i> , 2020, 265, 105381.	6.3	7
126	On-Line Solid Phase Extraction for Polycyclic Aromatic Hydrocarbons in Soil Column Effluents. <i>Journal of Environmental Quality</i> , 1999, 28, 730-732.	2.0	6

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127	Sorption and Transport of Iron-Cyanide Complexes in Goethite-coated Sand. Soil Science Society of America Journal, 2003, 67, 756-764.	2.2	6
128	PAH release from tar-contaminated soil material in response to forced environmental gradients: implications for contaminant transport. European Journal of Soil Science, 2008, 59, 50-60.	3.9	6
129	Advances of molecular modeling of biogeochemical interfaces in soils. Geoderma, 2011, 169, 1-3.	5.1	6
130	Constraints of propylene glycol degradation at low temperatures and saturated flow conditions. Environmental Science and Pollution Research, 2015, 22, 3158-3174.	5.3	6
131	Identification and quantification of single constituents in groundwater with Fourier-transform infrared spectroscopy and Positive Matrix Factorization. Vibrational Spectroscopy, 2019, 100, 152-158.	2.2	6
132	Well-defined poly(ethylene glycol) polymers as non-conventional reactive tracers of colloidal transport in porous media. Journal of Colloid and Interface Science, 2021, 584, 592-601.	9.4	6
133	Depth-differentiated, multivariate control of biopore number under different land-use practices. Geoderma, 2022, 418, 115852.	5.1	6
134	Characterization of a Technosol developed from deposited flue-dust slurry and release of inorganic contaminants. Journal of Plant Nutrition and Soil Science, 2011, 174, 721-731.	1.9	5
135	The phenanthrene-sorptive interface of an arable topsoil and its particle size fractions. European Journal of Soil Science, 2013, 64, 121-130.	3.9	5
136	Closed-flow column experiments—Insights into solute transport provided by a damped oscillating breakthrough behavior. Water Resources Research, 2016, 52, 2206-2221.	4.2	5
137	Closed-flow column experiments: A numerical sensitivity analysis of reactive transport and parameter uncertainty. Water Resources Research, 2016, 52, 6094-6110.	4.2	5
138	Efficient Prediction of Multidomain Flow and Transport in Hierarchically Structured Porous Media. Water Resources Research, 2018, 54, 9033-9044.	4.2	5
139	Isolation of Individual Saturated Fatty Acid Methyl Esters Derived From Groundwater Phospholipids by Preparative High-Pressure Liquid Chromatography for Compound-Specific Radiocarbon Analyses. Water Resources Research, 2019, 55, 2521-2531.	4.2	5
140	Sorption and Transport of Iron-Cyanide Complexes in Goethite-coated Sand. Soil Science Society of America Journal, 2003, 67, 756.	2.2	5
141	The constraint of CO ₂ measurements made onboard passenger aircraft on surface-atmosphere fluxes: the impact of transport model errors in vertical mixing. Atmospheric Chemistry and Physics, 2017, 17, 5665-5675.	4.9	4
142	Intraformational fluid flow in the Thuringian Syncline (Germany) - Evidence from stable isotope data in vein mineralization of Upper Permian and Mesozoic sediments. Chemical Geology, 2019, 523, 133-153.	3.3	4
143	Soil Solution Analysis With Untargeted GC-MS—A Case Study With Different Lysimeter Types. Frontiers in Earth Science, 2021, 8, .	1.8	4
144	Net ecosystem exchange (NEE) estimates 2006–2019 over Europe from a pre-operational ensemble-inversion system. Atmospheric Chemistry and Physics, 2022, 22, 7875-7892.	4.9	4

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145	Identification of nonlinear sorption isotherms by soil column breakthrough experiments. <i>Physics and Chemistry of the Earth</i> , 1998, 23, 215-219.	0.3	3
146	Exposure of humic acid-coated goethite colloids to groundwater does not affect their adsorption of metal(loid)s and their impact on Daphnid mobility. <i>Science of the Total Environment</i> , 2021, 797, 149153.	8.0	3
147	Short-term forecasting of regional biospheric CO ₂ fluxes in Europe using a light-use-efficiency model (VPRM, MPI-BGC version 1.2). <i>Geoscientific Model Development</i> , 2020, 13, 4091-4106.	3.6	3
148	Unbiased identification of nonlinear sorption characteristics by soil column breakthrough experiments. <i>Computational Geosciences</i> , 2006, 9, 203-217.	2.4	2
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