Jan Diels

List of Publications by Year
in descending order

103 papers	3,567 citations	94415 37 h-index	161844 54 g-index
104 all docs	104 docs citations	104 times ranked	4019 citing authors

#	Article	IF	Citations
1	Optimum Stand Density of Tropical Maize Varieties: An On-farm Evaluation of Grain Yield Responses in the Nigerian Savanna. Frontiers in Agronomy, 2022, 4, .	3.3	1
2	Evapotranspiration simulation from a sparsely vegetated agricultural field in a semi-arid agro-ecosystem using Penman-Monteith models. Agricultural and Forest Meteorology, 2021, 303, 108370.	4.8	16
3	A Workflow to Extract the Geometry and Type of Vegetated Landscape Elements from Airborne LiDAR Point Clouds. Remote Sensing, 2021, 13, 4031.	4.0	2
4	Soil Water Retention as Affected by Management Induced Changes of Soil Organic Carbon: Analysis of Long-Term Experiments in Europe. Land, 2021, 10, 1362.	2.9	25
5	Banana Biomass Estimation and Yield Forecasting from Non-Destructive Measurements for Two Contrasting Cultivars and Water Regimes. Agronomy, 2020, 10, 1435.	3.0	13
6	Measuring soil evaporation from a cropped land in the semi-arid Makanya catchment, Northern Tanzania: Methods and challenges. Physics and Chemistry of the Earth, 2020, 118-119, 102884.	2.9	3
7	Vadose Zone Lag Time Effect on Groundwater Drought in a Temperate Climate. Water (Switzerland), 2020, 12, 2123.	2.7	8
8	Canopy cover evolution, diurnal patterns and leaf area index relationships in a Mchare and Cavendish banana cultivar under different soil moisture regimes. Scientia Horticulturae, 2020, 272, 109328.	3.6	17
9	Anaerobic Respiration in the Unsaturated Zone of Agricultural Soil Mobilizes Phosphorus and Manganese. Environmental Science & Technology, 2020, 54, 4922-4931.	10.0	32
10	Optimizing sowing density-based management decisions with different nitrogen rates on smallholder maize farms in Northern Nigeria. Experimental Agriculture, 2020, 56, 866-883.	0.9	6
11	Survival and growth analysis of multipurpose trees, shrubs, and grasses used to rehabilitate badlands in the subhumid tropics. Land Degradation and Development, 2019, 30, 470-480.	3.9	10
12	High resolution mapping of agricultural water productivity using SEBAL in a cultivated African catchment, Tanzania. Physics and Chemistry of the Earth, 2019, 112, 36-49.	2.9	20
13	Scale effects of runoff generation under reduced and conventional tillage. Catena, 2019, 176, 1-13.	5.0	20
14	Options for calibrating CERES-maize genotype specific parameters under data-scarce environments. PLoS ONE, 2019, 14, e0200118.	2.5	19
15	Investigating regionalization techniques for large-scale hydrological modelling. Journal of Hydrology, 2019, 570, 220-235.	5.4	38
16	Extracting drainage networks and their connectivity using <scp>LiDAR</scp> data. Hydrological Processes, 2018, 32, 1026-1037.	2.6	21
17	Drainage ditch extraction from airborne LiDAR point clouds. ISPRS Journal of Photogrammetry and Remote Sensing, 2018, 146, 409-420.	11.1	22
18	Multiâ€criteriaâ€based Plant Species Selection for Gully and Riverbank Stabilization in a Subâ€humid Tropical Area. Land Degradation and Development, 2017, 28, 1675-1686.	3.9	10

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19	Internal Loading and Redox Cycling of Sediment Iron Explain Reactive Phosphorus Concentrations in Lowland Rivers. Environmental Science & Technology, 2017, 51, 2584-2592.	10.0	69
20	Bridging rigorous assessment of water availability from field to catchment scale with a parsimonious agro-hydrological model. Environmental Modelling and Software, 2017, 94, 140-156.	4.5	10
21	Minimum tillage, tied ridging and mulching for better maize yield and yield stability in the Central Highlands of Kenya. Soil and Tillage Research, 2017, 170, 157-166.	5.6	55
22	Model-based life cycle assessment of nitrogen fertilization in a cauliflower-leek rotation system. Acta Horticulturae, 2016, , 403-410.	0.2	1
23	Extracting cross sections and water levels of vegetated ditches from LiDAR point clouds. International Journal of Applied Earth Observation and Geoinformation, 2016, 53, 64-75.	2.8	8
24	Phosphorus use efficiency of improved faba bean (<i>Vicia faba</i>) varieties in lowâ€input agroâ€ecosystems. Journal of Plant Nutrition and Soil Science, 2016, 179, 347-354.	1.9	18
25	Impact of dry-wet and freeze-thaw events on pesticide mineralizing populations and their activity in wetland ecosystems: A microcosm study. Chemosphere, 2016, 146, 85-93.	8.2	12
26	A semi-quantitative approach for modelling crop response to soil fertility: evaluation of the AquaCrop procedure. Journal of Agricultural Science, 2015, 153, 1218-1233.	1.3	37
27	Phosphorus losses from agricultural land to natural waters are reduced by immobilization in iron-rich sediments of drainage ditches. Water Research, 2015, 71, 160-170.	11.3	72
28	Combining Î´13C measurements and ERT imaging: improving our understanding of competition at the crop-soil-hedge interface. Plant and Soil, 2015, 393, 1-20.	3.7	20
29	Dissolved phosphorus transport from soil to surface water in catchments with different land use. Ambio, 2015, 44, 228-240.	5.5	40
30	Numerical calculation of soil water potential in an irrigated â€˜conferenceâ€™ pear orchard. Agricultural Water Management, 2015, 148, 113-122.	5.6	8
31	Large-Scale Hydrological Simulations Using the Soil Water Assessment Tool, Protocol Development, and Application in the Danube Basin. Journal of Environmental Quality, 2014, 43, 145-154.	2.0	48
32	Identifying the Transport Pathways of Dissolved Organic Carbon in Contrasting Catchments. Vadose Zone Journal, 2014, 13, 1-14.	2.2	21
33	The use of visible and near-infrared reflectance measurements for identifying the source of suspended sediment in rivers and comparison with geochemical fingerprinting. Journal of Soils and Sediments, 2014, 14, 1869-1885.	3.0	13
34	Effects of selected soil and water conservation technologies on nutrient losses and maize yields in the central highlands of Kenya. Agricultural Water Management, 2014, 137, 52-58.	5.6	57
35	Modeling scale-dependent runoff generation in a small semi-arid watershed accounting for rainfall intensity and water depth. Advances in Water Resources, 2014, 69, 65-78.	3.8	13
36	Estimating the parameters of a 3-D root distribution function from root observations with the trench profile method: case study with simulated and field-observed root data. Plant and Soil, 2014, 375, 75-88.	3.7	23

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37	Importance of correct B value determination to quantify biological N2 fixation and N balances of faba beans (Vicia faba L.) via 15N natural abundance. Biology and Fertility of Soils, 2014, 50, 517-525.	4.3	37
38	Length of growing season, rainfall temporal distribution, onset and cessation dates in the Kenyan highlands. Agricultural and Forest Meteorology, 2014, 188, 24-32.	4.8	69
39	Effects of selected soil and water conservation techniques on runoff, sediment yield and maize productivity under sub-humid and semi-arid conditions in Kenya. Catena, 2014, 121, 288-296.	5.0	66
40	Nitrogen and phosphorus benefits from faba bean (Vicia faba L.) residues to subsequent wheat crop in the humid highlands of Ethiopia. Nutrient Cycling in Agroecosystems, 2014, 98, 253-266.	2.2	13
41	Controls on dissolved organic carbon export through surface runoff from loamy agricultural soils. Geoderma, 2014, 226-227, 387-396.	5.1	37
42	Can We Use Electrical Resistivity Tomography to Measure Root Zone Dynamics in Fields with Multiple Crops?. Procedia Environmental Sciences, 2013, 19, 403-410.	1.4	9
43	Calibration of WAVE in Irrigated Maize: Fallow vs. Cover Crops. Procedia Environmental Sciences, 2013, 19, 785-793.	1.4	1
44	Estimating the parameters of the Green–Ampt infiltration equation from rainfall simulation data: Why simpler is better. Journal of Hydrology, 2013, 476, 332-344.	5.4	52
45	Development and parameterization of an infiltration model accounting for water depth and rainfall intensity. Hydrological Processes, 2013, 27, 3777-3790.	2.6	13
46	Noninvasive Monitoring of Soil Water Dynamics in Mixed Cropping Systems: A Case Study in Ratchaburi Province, Thailand. Vadose Zone Journal, 2013, 12, 1-12.	2.2	49
47	Evaluating Experimental Design of ERT for Soil Moisture Monitoring in Contour Hedgerow Intercropping Systems. Vadose Zone Journal, 2012, 11, vzj2011.0186.	2.2	30
48	Spatial patterns, causes and consequences of landslides in the Gilgel Gibe catchment, SW Ethiopia. Catena, 2012, 97, 127-136.	5.0	74
49	Long-term dynamics of the atrazine mineralization potential in surface and subsurface soil in an agricultural field as a response to atrazine applications. Chemosphere, 2012, 86, 1028-1034.	8.2	20
50	Soil functioning and conservation tillage in the Belgian Loam Belt. Soil and Tillage Research, 2012, 122, 1-11.	5.6	28
51	Experimental rainfall–runoff data: Reconsidering the concept of infiltration capacity. Journal of Hydrology, 2011, 399, 255-262.	5.4	51
52	Assessing the effect of soil tillage on crop growth: A meta-regression analysis on European crop yields under conservation agriculture. European Journal of Agronomy, 2010, 33, 231-241.	4.1	221
53	Monod kinetics rather than a first-order degradation model explains atrazine fate in soil mini-columns: Implications for pesticide fate modelling. Environmental Pollution, 2010, 158, 1405-1411.	7.5	44
54	Dependence of effective hydraulic conductivity on rainfall intensity: loamy agricultural soils. Hydrological Processes, 2010, 24, 2257-2268.	2.6	21

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55	DOES CROP-LIVESTOCK INTEGRATION LEAD TO IMPROVED CROP PRODUCTION IN THE SAVANNA OF WEST AFRICA?. Experimental Agriculture, 2010, 46, 439-455.	0.9	18
56	Assessment of nutrient deficiencies in maize in nutrient omission trials and long-term field experiments in the West African Savanna. Plant and Soil, 2009, 314, 143-157.	3.7	45
57	Inverse modeling of pesticide degradation and pesticide-degrading population size dynamics in a bioremediation system: Parameterizing the Monod model. Chemosphere, 2009, 75, 726-731.	8.2	20
58	Potential nutrient supply, nutrient utilization efficiencies, fertilizer recovery rates and maize yield in northern Nigeria. Nutrient Cycling in Agroecosystems, 2008, 80, 161-172.	2.2	15
59	Plant age and rock phosphate effects on the organic resource quality of herbaceous legume residues and their N and P release dynamics. Agronomy for Sustainable Development, 2008, 28, 429-437.	5.3	5
60	THE ROLE OF CATTLE MANURE IN ENHANCING ON-FARM PRODUCTIVITY, MACRO- AND MICRO-NUTRIENT UPTAKE, AND PROFITABILITY OF MAIZE IN THE GUINEA SAVANNA. Experimental Agriculture, 2008, 44, 313-328.	0.9	10
61	Design and Testing of a Drop Counter for Use in Vadose Zone Water Samplers. Vadose Zone Journal, 2008, 7, 434-438.	2.2	4
62	Numerical Analysis of Passive Capillary Wick Samplers prior to Field Installation. Soil Science Society of America Journal, 2007, 71, 35-42.	2.2	26
63	Does the enhanced P acquisition by maize following legumes in a rotation result from improved soil P availability?. Soil Biology and Biochemistry, 2007, 39, 2555-2566.	8.8	39
64	Evaluation of cowpea genotypes for variations in their contribution of N and P to subsequent maize crop in three agro-ecological zones of West Africa. , 2007, , 401-412.		3
65	The development of a prototype land information system for the northern Guinea savanna of Nigeria as a basis for agro-technology transfer. , 2007, , 629-646.		1
66	Balanced Nutrient Management System Technologies In The Northern Guinea Savanna Of Nigeria: Validation And Perspective. , 2007, , 669-678.		1
67	Differential 13C Isotopic Discrimination in Maize at Varying Water Stress and at Low to High Nitrogen Availability. Plant and Soil, 2006, 282, 313-326.	3.7	54
68	Plant-available P for Maize and Cowpea in P-deficient Soils from the Nigerian Northern Guinea Savanna â€" Comparison of E- and L-values. Plant and Soil, 2006, 283, 251-264.	3.7	34
69	Phosphorus intensity determines short-term P uptake by pigeon pea (Cajanus cajan L.) grown in soils with differing P buffering capacity. Plant and Soil, 2006, 284, 217-227.	3.7	21
70	On-farm Evaluation of Biological Nitrogen Fixation Potential and Grain Yield of Lablab and Two Soybean Varieties in the Northern Guinea Savanna of Nigeria. Nutrient Cycling in Agroecosystems, 2005, 73, 267-275.	2.2	20
71	Senna siamea trees recycle Ca from a Ca-rich subsoil and increase the topsoil pH in agroforestry systems in the West African derived savanna zone. Plant and Soil, 2005, 269, 285-296.	3.7	27
72	Long-term integrated soil fertility management in South-western Nigeria: Crop performance and impact on the soil fertility status. Plant and Soil, 2005, 273, 337-354.	3.7	43

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73	Long-term soil organic carbon dynamics in a subhumid tropical climate: 13C data in mixed C3/C4 cropping and modeling with ROTHC. Soil Biology and Biochemistry, 2004, 36, 1739-1750.	8.8	70
74	The distribution of phosphorus fractions and desorption characteristics of some soils in the moist savanna zone of West Africa. Nutrient Cycling in Agroecosystems, 2004, 69, 127-141.	2.2	19
75	Impact of residue characteristics on phosphorus availability in West African moist savanna soils. Biology and Fertility of Soils, 2004, 39, 422-428.	4.3	15
76	Biomass estimations and carbon stock calculations in the oil palm plantations of African derived savannas using IKONOS data. International Journal of Remote Sensing, 2004, 25, 5447-5472.	2.9	147
77	Balanced nutrient management systems for cropping systems in the tropics: from concept to practice. Agriculture, Ecosystems and Environment, 2003, 100, 99-102.	5.3	12
78	Assessment of labile phosphorus fractions and adsorption characteristics in relation to soil properties of West African savanna soils. Agriculture, Ecosystems and Environment, 2003, 100, 285-294.	5.3	70
79	Sustainable resource management coupled to resilient germplasm to provide new intensive cerealâ€"grainâ€"legumeâ€"livestock systems in the dry savanna. Agriculture, Ecosystems and Environment, 2003, 100, 305-314.	5.3	134
80	Title is missing!. Nutrient Cycling in Agroecosystems, 2002, 62, 139-150.	2.2	30
81	Overview of inert tracer experiments in key belgian soil types: Relation between transport and soil morphological and hydraulic properties. Water Resources Research, 2001, 37, 2873-2888.	4.2	65
82	Temporal variations in plant Î´13C values and implications for using the 13C technique in long-term soil organic matter studies. Soil Biology and Biochemistry, 2001, 33, 1245-1251.	8.8	35
83	Maize Yield as Affected by Organic Inputs and Urea in the West African Moist Savanna. Agronomy Journal, 2001, 93, 1191-1199.	1.8	96
84	Title is missing!. Nutrient Cycling in Agroecosystems, 2001, 59, 129-141.	2.2	49
85	Title is missing!. Agroforestry Systems, 2001, 53, 21-30.	2.0	8
86	Title is missing!. Plant and Soil, 2001, 228, 61-71.	3.7	30
87	Nitrogen and phosphorus uptake by maize as affected by particulate organic matter quality, soil characteristics, and land-use history for soils from the West African moist savanna zone. Biology and Fertility of Soils, 2000, 30, 440-449.	4.3	32
88	Utilization of rock phosphate by crops on a representative toposequence in the Northern Guinea savanna zone of Nigeria: response by Mucuna pruriens, Lablab purpureus and maize. Soil Biology and Biochemistry, 2000, 32, 2063-2077.	8.8	64
89	Utilization of rock phosphate by crops on a representative toposequence in the Northern Guinea savanna zone of Nigeria: response by maize to previous herbaceous legume cropping and rock phosphate treatments. Soil Biology and Biochemistry, 2000, 32, 2079-2090.	8.8	54
90	Title is missing!. Agroforestry Systems, 1998, 42, 213-227.	2.0	28

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91	Title is missing!. Agroforestry Systems, 1998, 42, 229-244.	2.0	17
92	Title is missing!. Agroforestry Systems, 1998, 42, 245-264.	2.0	29
93	Mineral N dynamics in bare and cropped Leucaena leucocephala and Dactyladenia barteri alley cropping systems after the addition of 15 N-labelled leaf residues. European Journal of Soil Science, 1998, 49, 417-425.	3.9	13
94	Analysis of steady state chloride transport through two heterogeneous field soils. Water Resources Research, 1998, 34, 2539-2550.	4.2	40
95	A COMPARISON OF THE CONTRIBUTIONS OF CLAY, SILT, AND ORGANIC MATTER TO THE EFFECTIVE CEC OF SOILS OF SUBSAHARAN AFRICA.. Soil Science, 1997, 162, 785-794.	0.9	55
96	A stochastic approach to simulate water flow in a macroporous soil. Geoderma, 1996, 70, 299-324.	5.1	50
97	Determining Convective Lognormal Solute Transport Parameters from Resident Concentration Data. Soil Science Society of America Journal, 1996, 60, 1306-1317.	2.2	45
98	A deterministic evaluation analysis applied to an integrated soil-crop model. Ecological Modelling, 1995, 81, 183-195.	2.5	66
99	The effect of soil heterogeneity and hysteresis on solute transport: a numerical experiment. Ecological Modelling, 1995, 77, 273-288.	2.5	10
100	A STATISTICAL ANALYSIS OF SIX HYSTERESIS MODELS FOR THE MOISTURE RETENTION CHARACTERISTIC. Soil Science, 1994, 157, 345-355.	0.9	51
101	Determining local-scale solute transport parameters using time domain reflectometry (TDR). Journal of Hydrology, 1993, 148, 93-107.	5.4	68
102	Functional Evaluation of Pedotransfer Functions for the Estimation of Soil Hydraulic Properties. Soil Science Society of America Journal, 1992, 56, 1371-1378.	2.2	94
103	Simulating water and nitrogen behaviour in soils cropped with winter wheat. Fertilizer Research, 1991, 27, 233-243.	0.5	41