

Norman Wagner

List of Publications by Year in descending order

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46
papers

739
citations

567281

15
h-index

552781

26
g-index

48
all docs

48
docs citations

48
times ranked

487
citing authors

#	ARTICLE	IF	CITATIONS
1	Experimental Investigations on the Frequency- and Temperature-Dependent Dielectric Material Properties of Soil. IEEE Transactions on Geoscience and Remote Sensing, 2011, 49, 2518-2530.	6.3	107
2	Numerical 3-D FEM and Experimental Analysis of the Open-Ended Coaxial Line Technique for Microwave Dielectric Spectroscopy on Soil. IEEE Transactions on Geoscience and Remote Sensing, 2014, 52, 880-893.	6.3	76
3	Spatial time domain reflectometry and its application for the measurement of water content distributions along flat ribbon cables in a full-scale levee model. Water Resources Research, 2009, 45, .	4.2	56
4	Ultra-broad-band electrical spectroscopy of soils and sediments—a combined permittivity and conductivity model. Geophysical Journal International, 2017, 210, 1360-1373.	2.4	47
5	On the relationship between matric potential and dielectric properties of organic free soils: a sensitivity study. Canadian Geotechnical Journal, 2009, 46, 1202-1215.	2.8	46
6	Dielectric relaxation behavior of Callovo-Oxfordian clay rock: A hydraulic-mechanical-electromagnetic coupling approach. Journal of Geophysical Research: Solid Earth, 2013, 118, 4729-4744.	3.4	42
7	A new technique for measuring broadband dielectric spectra of undisturbed soil samples. European Journal of Soil Science, 2012, 63, 224-238.	3.9	39
8	Determination of the spatial TDR-sensor characteristics in strong dispersive subsoil using 3D-FEM frequency domain simulations in combination with microwave dielectric spectroscopy. Measurement Science and Technology, 2007, 18, 1137-1146.	2.6	34
9	A New Broadband Dielectric Model for Simultaneous Determination of Water Saturation and Porosity. IEEE Transactions on Geoscience and Remote Sensing, 2018, 56, 4702-4713.	6.3	27
10	Spectral Decomposition of Soil Electrical and Dielectric Losses and Prediction of In-Situ GPR Performance. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2016, 9, 212-220.	4.9	24
11	TDR measurements and simulations in high lossy bentonite materials. Measurement Science and Technology, 2007, 18, 1118-1136.	2.6	23
12	Permittivity of ice at radio frequencies: Part II. Artificial and natural polycrystalline ice. Cold Regions Science and Technology, 2012, 83-84, 13-19.	3.5	22
13	Error Analysis of Clay-Rock Water Content Estimation with Broadband High-Frequency Electromagnetic Sensors—Air Gap Effect. Sensors, 2016, 16, 554.	3.8	20
14	Broadband electromagnetic analysis of compacted kaolin. Measurement Science and Technology, 2017, 28, 014016.	2.6	19
15	Permittivity of ice at radio frequencies: Part I. Coaxial transmission line cell. Cold Regions Science and Technology, 2012, 82, 56-67.	3.5	16
16	Supercooled interfacial water in fine-grained soils probed by dielectric spectroscopy. Cryosphere, 2013, 7, 1839-1855.	3.9	15
17	Thermal and dielectric behaviour of fine-grained soils. Environmental Geotechnics, 2017, 4, 79-93.	2.3	13
18	A large coaxial reflection cell for broadband dielectric characterization of coarse-grained materials. Measurement Science and Technology, 2018, 29, 015602.	2.6	12

#	ARTICLE	IF	CITATIONS
19	Radio to microwave dielectric characterisation of constitutive electromagnetic soil properties using vector network analyses. <i>Journal of Geophysics and Engineering</i> , 2016, 13, S28-S38.	1.4	10
20	Coupled hydraulic, mechanical and dielectric investigations on kaolin. <i>Engineering Geology</i> , 2021, 294, 106352.	6.3	9
21	Prediction of GPR Performance in Soils Using Broadband Dielectric Spectroscopy. , 2013, , .		9
22	Dielectric measurement method for real-time monitoring of initial hardening of backfill materials used for underground construction. <i>Journal of Geophysics and Engineering</i> , 2016, 13, S19-S27.	1.4	8
23	Experimental investigation of the dielectric properties of soil under hydraulic loading. <i>Measurement Science and Technology</i> , 2017, 28, 044001.	2.6	7
24	Electromagnetic techniques in geoenvironmental engineering. <i>Environmental Geotechnics</i> , 2017, 4, 3-8.	2.3	7
25	Spatial Retrieval of Broadband Dielectric Spectra. <i>Sensors</i> , 2018, 18, 2780.	3.8	6
26	Non-destructive coaxial transmission line measurements for dielectric soil characterization. , 2014, , .		5
27	Estimation of the Soil Water Characteristics from dielectric relaxation spectra. , 2014, , .		5
28	Multiple open ended probe for spatio-temporal dielectric spectroscopy: Application to evaporative dewatering. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021, 173, 108521.	5.0	5
29	Bestimmung von Feuchte- und Dichteverteilungen mit TDR-Sensoren (Determination of Moisture and Density) Tj ETQq1 1 0,784314 rgBT /Overl	0.7	5
30	Experimental study on the relationship of mechanic and hydraulic state variables, and the dielectric properties of clays. , 2014, , 247-253.		4
31	Experimental determination of frequency- and temperature-dependent electrical properties of water-saturated clays using spectral induced polarization and network analyzer technique. <i>Measurement: Journal of the International Measurement Confederation</i> , 2022, 190, 110653.	5.0	4
32	Simultaneous determination of the dielectric relaxation behavior and soilwater characteristic curve of undisturbed soil samples. , 2012, , .		3
33	Thermohaline energy geo-storage: evaluation of fluidâ€“fluid layers and fluidâ€“rock salt interaction. <i>Geotechnique Letters</i> , 2014, 4, 132-138.	1.2	3
34	Frequency-dependant dielectric parameters of steel fiber reinforced concrete. , 2012, , .		2
35	Spatial Time Domain Reflectometry (spatial TDR) in geo-environmental engineering. , 2014, , .		2
36	Electromagnetic Characterization of Coarse-Grained Soils with a One Port Large Coaxial Cell. , 2018, , .		2

#	ARTICLE	IF	CITATIONS
37	Broadband Dielectric Spectroscopy with Coaxial Transmission Line Technique - A new inversion approach. , 2021, , .		2
38	A cylindrical guarded capacitor for spectral permittivity measurements of hard rock samples in the MHz-range. Measurement Science and Technology, 2015, 26, 105902.	2.6	1
39	3D-FEM modeling of F/TDR sensors for clay-rock water content measurement in combination with broadband dielectric spectroscopy. , 2015, , .		1
40	On Reconstructing the Soil Shrinkage Characteristic Curve by Dielectric Spectroscopy. , 2019, , .		1
41	Spatial Time Domain Reflectometry (Spatial TDR) â€œ On the use in geohydraulics and geotechnics. , 2008, , 189-195.		1
42	Spatial time domain reflectometry for monitoring of the hydrological water balance at a lysimeter test site in Thuringia/Germany. , 2012, , .		0
43	Frequency-dependent attenuation analysis in soils using broadband dielectric spectroscopy and TDR. , 2014, , .		0
44	Dielectric Spectra Reconstruction of Layered Multi-Phase Soil. , 2018, , .		0
45	Analysis of Interfacial Water in Clay by High Frequency Dielectric Relaxation Spectroscopy. , 2021, , .		0
46	Impact of the cation exchange capacity on dielectric relaxation spectra of water saturated clays. , 2021, , .		0