

Minimizing Drift in Electrical Conductivity Measurements in Saline Environments using the EM88

Soil Science Society of America Journal

68, 339-345

DOI: [10.2136/sssaj2004.3390](https://doi.org/10.2136/sssaj2004.3390)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Characterizing soil spatial variability with apparent soil electrical conductivity. <i>Computers and Electronics in Agriculture</i> , 2005, 46, 103-133.	7.7	232
2	Apparent soil electrical conductivity measurements in agriculture. <i>Computers and Electronics in Agriculture</i> , 2005, 46, 11-43.	7.7	718
3	An electromagnetic induction method for monitoring variation in soil moisture in agroforestry systems. <i>Soil Research</i> , 2007, 45, 63.	1.1	62
4	Comparing Bulk Soil Electrical Conductivity Determination Using the DUALEM [®] 1S and EM38 [®] DD Electromagnetic Induction Instruments. <i>Soil Science Society of America Journal</i> , 2007, 71, 189-196.	2.2	92
5	A regional soil survey approach for upgrading from flood to sprinkler irrigation in a semi-arid environment. <i>Agricultural Water Management</i> , 2007, 93, 145-152.	5.6	17
6	Advancing process-based watershed hydrological research using near-surface geophysics: a vision for, and review of, electrical and magnetic geophysical methods. <i>Hydrological Processes</i> , 2008, 22, 3604-3635.	2.6	228
7	Assessment of multi-frequency electromagnetic induction for determining soil moisture patterns at the hillslope scale. <i>Journal of Hydrology</i> , 2009, 368, 56-67.	5.4	59
8	Repeated Electromagnetic Induction Surveys for Determining Subsurface Hydrologic Dynamics in an Agricultural Landscape. <i>Soil Science Society of America Journal</i> , 2010, 74, 1750-1762.	2.2	64
9	Proximal Soil Sensing. , 2010, , .		61
10	Proximal Soil Sensing: An Effective Approach for Soil Measurements in Space and Time. <i>Advances in Agronomy</i> , 2011, 113, 243-291.	5.2	165
11	Low induction number, ground conductivity meters: A correction procedure in the absence of magnetic effects. <i>Journal of Applied Geophysics</i> , 2011, 75, 244-253.	2.1	56
12	Advances in Agronomy. <i>Advances in Agronomy</i> , 2011, , iii.	5.2	5
13	Quantitative Two-Layer Conductivity Inversion of Multi-Configuration Electromagnetic Induction Measurements. <i>Vadose Zone Journal</i> , 2011, 10, 1319-1330.	2.2	69
14	Comparing temperature correction models for soil electrical conductivity measurement. <i>Precision Agriculture</i> , 2011, 12, 55-66.	6.0	93
15	Using apparent soil electrical conductivity (ECa) to characterize vineyard soils of high clay content. <i>Precision Agriculture</i> , 2011, 12, 775-794.	6.0	62
16	Comparing performance of instrumental drift correction by linear and quadratic adjusting in inductive electromagnetic data. <i>Journal of Applied Geophysics</i> , 2011, 73, 1-7.	2.1	17
17	Geophysical Investigations of Soil Landscape Architecture and Its Impacts on Subsurface Flow. , 2012, , 413-447.		8
18	Detecting soil salinity changes in irrigated Vertisols by electrical resistivity prospecting during a desalinisation experiment. <i>Agricultural Water Management</i> , 2012, 109, 1-10.	5.6	27

#	ARTICLE	IF	CITATIONS
19	The use of Slingram EM38 data for topsoil and subsoil geoelectrical characterization with a Bayesian inversion. <i>Geoderma</i> , 2013, 200-201, 140-155.	5.1	25
20	A New Electromagnetic Induction Calibration Model for Estimating Low Range Salinity in Calcareous Soils. <i>Soil Science Society of America Journal</i> , 2013, 77, 985-1000.	2.2	10
21	Development and drift-analysis of a modular electromagnetic induction system for shallow ground conductivity measurements. <i>Measurement Science and Technology</i> , 2014, 25, 055801.	2.6	12
22	An efficient calibration procedure for correction of drift in EMI survey data. <i>Journal of Applied Geophysics</i> , 2014, 110, 115-125.	2.1	51
23	Quantitative multi-layer electromagnetic induction inversion and full-waveform inversion of crosshole ground penetrating radar data. <i>Journal of Earth Science (Wuhan, China)</i> , 2015, 26, 844-850.	3.2	17
24	Estimation of soil salinity in a drip irrigation system by using joint inversion of multicoil electromagnetic induction measurements. <i>Water Resources Research</i> , 2015, 51, 3490-3504.	4.2	42
25	Mapping Spatial Variability of Soil Salinity in a Coastal Paddy Field Based on Electromagnetic Sensors. <i>PLoS ONE</i> , 2015, 10, e0127996.	2.5	27
26	Comparison of the EM38 and EM38-MK2 electromagnetic induction-based sensors for spatial soil analysis at field scale. <i>Computers and Electronics in Agriculture</i> , 2015, 110, 267-280.	7.7	45
27	Field-Scale Apparent Soil Electrical Conductivity. <i>Methods of Soil Analysis</i> , 2016, 1, 1405.	0.8	13
28	Mapping soil water dynamics and a moving wetting front by spatiotemporal inversion of electromagnetic induction data. <i>Water Resources Research</i> , 2016, 52, 9131-9145.	4.2	28
29	Identifying and removing micro-drift in ground-based electromagnetic induction data. <i>Journal of Applied Geophysics</i> , 2016, 131, 14-22.	2.1	18
31	Mapping Horizontal and Vertical Spatial Variability of Soil Salinity in Reclaimed Areas. <i>Springer Environmental Science and Engineering</i> , 2016, , 33-45.	0.1	0
32	Soil apparent conductivity measurements for planning and analysis of agricultural experiments: A case study from Western-Thailand. <i>Geoderma</i> , 2016, 267, 220-229.	5.1	15
33	System stability and calibrations for hand-held electromagnetic frequency domain instruments. <i>Journal of Applied Geophysics</i> , 2017, 140, 84-92.	2.1	1
34	Mapping soil salinity and a fresh-water intrusion in three-dimensions using a quasi-3d joint-inversion of DUALEM-421S and EM34 data. <i>Science of the Total Environment</i> , 2017, 577, 395-404.	8.0	31
35	Temperature-dependent hysteresis effects on EM induction instruments: An example of single-frequency multi-coil array instruments. <i>Computers and Electronics in Agriculture</i> , 2017, 132, 76-85.	7.7	13
36	Principal Component Analysis of the Spatiotemporal Pattern of Soil Moisture and Apparent Electrical Conductivity. <i>Vadose Zone Journal</i> , 2017, 16, 1-12.	2.2	10
37	Repeated electromagnetic induction measurements for mapping soil moisture at the field scale: validation with data from a wireless soil moisture monitoring network. <i>Hydrology and Earth System Sciences</i> , 2017, 21, 495-513.	4.9	52

#	ARTICLE	IF	CITATIONS
38	Soil Moisture Mapping Using Multi-Frequency and Multi-Coil Electromagnetic Induction Sensors on Managed Podzols. <i>Agronomy</i> , 2018, 8, 224.	3.0	30
39	Calibrating electromagnetic induction conductivities with time-domain reflectometry measurements. <i>Hydrology and Earth System Sciences</i> , 2018, 22, 1509-1523.	4.9	27
40	Temporal stability of soil apparent electrical conductivity (ECa) in managed podzols. <i>Acta Geophysica</i> , 2019, 67, 1107-1118.	2.0	2
41	Theory and Guidelines for the Application of the Geophysical Sensor EM38. <i>Sensors</i> , 2019, 19, 4293.	3.8	24
42	Evaluation of DualEM-II sensor for soil moisture content estimation in the potato fields of Atlantic Canada. <i>Plant, Soil and Environment</i> , 2019, 65, 290-297.	2.2	6
43	Simultaneous calibration and inversion algorithm for multiconfiguration electromagnetic induction data acquired at multiple elevations. <i>Geophysics</i> , 2019, 84, EN1-EN14.	2.6	12
44	Integrated Geophysical Techniques for the Archaeological Investigation of LbDt-1, a Paleo-Inuit Lithic Quarry Site in the Interior of Southern Baffin Island, Nunavut, Canada. <i>Journal of Archaeological Method and Theory</i> , 2019, 26, 185-216.	3.0	4
45	Electrical Resistivity of Freezing Clay: Experimental Study and Theoretical Model. <i>Journal of Geophysical Research F: Earth Surface</i> , 2020, 125, e2019JF005267.	2.8	9
46	Time-lapse geophysical assessment of agricultural practices on soil moisture dynamics. <i>Vadose Zone Journal</i> , 2020, 19, e20080.	2.2	28
47	Field-scale apparent soil electrical conductivity. <i>Soil Science Society of America Journal</i> , 2020, 84, 1405-1441.	2.2	35
48	Frequency domain electromagnetic induction: an efficient method for investigating Fort Ancient village dynamics. <i>Archaeological Prospection</i> , 2021, 28, 73-87.	2.2	5
49	The problem with "apparent electrical conductivity" in soil electromagnetic induction studies. <i>Advances in Agronomy</i> , 2021, 165, 161-173.	5.2	2
50	Ambient temperature and relative humidity-based drift correction in frequency domain electromagnetics using machine learning. <i>Near Surface Geophysics</i> , 2021, 19, 541-556.	1.2	5
51	Evaluating unoccupied aerial systems (UAS) imagery as an alternative tool towards cotton-based management zones. <i>Precision Agriculture</i> , 0, , 1.	6.0	5
52	Agrogeophysical methods for identifying soil pipes. <i>Journal of Applied Geophysics</i> , 2021, 192, 104383.	2.1	4
53	CORRECTION OF THE TEMPERATURE DRIFT IN THE GEOPHYSICAL INSTRUMENT OF GROUND-BASED INDUCTION FREQUENCY SOUNDING. <i>Interexpo GEO-Siberia</i> , 2021, 2, 153-161.	0.0	0
55	Seasonal variation in apparent conductivity and soil salinity at two Narragansett Bay, RI salt marshes. <i>PeerJ</i> , 2019, 7, e8074.	2.0	3
57	Model-Based Correction of Temperature-Dependent Measurement Errors in Frequency Domain Electromagnetic Induction (FDEMI) Systems. <i>Sensors</i> , 2022, 22, 3882.	3.8	1

#	ARTICLE	IF	CITATIONS
58	An Overview of Soil Moisture and Salinity Sensors for Digital Agriculture Applications. , 0, , .		2
59	Application of Soil Sensing in Precision Agriculture. Agriculture Automation and Control, 2022, , 75-126.	0.6	0
60	Integration of Near-Surface Complementary Geophysical Techniques for the Study of Ancient Archaeological Areas in the Atacama Desert (Pampa Iluga, Northern Chile). Surveys in Geophysics, 2023, 44, 495-525.	4.6	2
61	Temporal and operation-induced instability of apparent soil electrical conductivity measurements. Frontiers in Soil Science, 0, 3, .	2.2	2
62	Multifrequency electromagnetic induction soil moisture characterization under different land uses in western Newfoundland. Canadian Journal of Soil Science, 2023, 103, 446-461.	1.2	1
63	Estimation of soil water content using electromagnetic induction sensors under different land uses. Environmental Research Communications, 2023, 5, 085002.	2.3	1
64	Low-Pass Filters for a Temperature Drift Correction Method for Electromagnetic Induction Systems. Sensors, 2023, 23, 7322.	3.8	0
65	A system for concurrent on-the-go soil apparent electrical conductivity and gamma-ray sensing in micro-irrigated orchards. Soil and Tillage Research, 2024, 235, 105899.	5.6	0
66	Revealing subsurface structure at the former municipal solid waste disposal site Leuwi Gajah of Cimahi Town by using geophysical data: a preliminary result. IOP Conference Series: Earth and Environmental Science, 2023, 1288, 012023.	0.3	0
67	What do electromagnetic sensors measure in soil surveys?. Advances in Agronomy, 2024, , 251-269.	5.2	0