

# James C Macnae

## List of Publications by Year in descending order

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93  
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394421

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docs citations

94  
times ranked

615  
citing authors

#	ARTICLE	IF	CITATIONS
1	Three conductivity modelling algorithms and three 3D inversions of the Forrestania test site AEM anomaly. <i>Exploration Geophysics</i> , 2020, 51, 14-24.	1.1	2
2	Stripping induced polarization effects from airborne electromagnetics to improve 3D conductivity inversion of a narrow palaeovalley. <i>Geophysics</i> , 2020, 85, B161-B167.	2.6	3
3	Estimation and geologic interpretation of regolith chargeability and superparamagnetic susceptibility in airborne electromagnetic data. <i>Geophysics</i> , 2020, 85, E153-E162.	2.6	4
4	Advances towards useful Airborne Induced Polarization surveys. , 2019, , .		1
5	Source-dependent bias of sferics in magnetotelluric responses. <i>Geophysics</i> , 2018, 83, E161-E171.	2.6	8
6	3D time-domain airborne electromagnetic inversion based on secondary field finite-volume method. <i>Geophysics</i> , 2018, 83, E219-E228.	2.6	35
7	Predicting lightning sourced electromagnetic fields. <i>Exploration Geophysics</i> , 2018, 49, 425-433.	1.1	3
8	Definitive superparamagnetic source identification through spatial, temporal, and amplitude analysis of airborne electromagnetic data. <i>Geophysical Prospecting</i> , 2017, 65, 1071-1084.	1.9	10
9	Superparamagnetism in ground and airborne electromagnetics: Geometrical and physical controls. <i>Geophysics</i> , 2017, 82, E347-E356.	2.6	8
10	Magnetotelluric distortions directly observed with lightning data. <i>Geophysical Journal International</i> , 2017, 210, 1171-1175.	2.4	1
11	Quantitative estimation of intrinsic induced polarization and superparamagnetic parameters from airborne electromagnetic data. <i>Geophysics</i> , 2016, 81, E433-E446.	2.6	25
12	Comparing induced polarization responses from airborne inductive and galvanic ground systems: Lewis Ponds, New South Wales. <i>Geophysics</i> , 2016, 81, B179-B188.	2.6	9
13	Fitting superparamagnetic and distributed Cole-Cole parameters to airborne electromagnetic data: A case history from Quebec. <i>Geophysics</i> , 2016, 81, B211-B220.	2.6	13
14	Comparing induced polarization responses from airborne inductive and galvanic ground systems: Tasmania. <i>Geophysics</i> , 2016, 81, E471-E479.	2.6	11
15	Quantifying Airborne Induced Polarization effects in helicopter time domain electromagnetics. <i>Journal of Applied Geophysics</i> , 2016, 135, 495-502.	2.1	27
16	Fitting SPM and distributed Cole-Cole parameters to AEM data. , 2016, , .		0
17	Using induction coil sensor optimization techniques for designing compact geophysical transmitters. <i>ASEG Extended Abstracts</i> , 2015, 2015, 1-4.	0.1	0
18	Stripping very low frequency communication signals with minimum shift keying encoding from streamed time-domain electromagnetic data. <i>Geophysics</i> , 2015, 80, E343-E353.	2.6	17

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19	Comment on: Tarasov, A. & Titov, K., 2013, On the use of the Cole–Cole equations in spectral induced polarization, <i>Geophys. J. Int.</i> , 195, 352–356. <i>Geophysical Journal International</i> , 2015, 202, 529-532.	2.4	10
20	Airborne electromagnetic modelling options and their consequences in target definition. <i>Exploration Geophysics</i> , 2015, 46, 74-84.	1.1	34
21	3D-spectral CDIs: a fast alternative to 3D inversion?. <i>Exploration Geophysics</i> , 2015, 46, 12-18.	1.1	15
22	Definitive SPM identification through spatial, temporal and amplitude analysis of airborne EM data. , 2015, , .		1
23	First evidence of detecting surface nuclear magnetic resonance signals using a compact B-field sensor. <i>Geophysical Research Letters</i> , 2014, 41, 4222-4229.	4.0	21
24	Prediction and removal of rotation noise in airborne EM systems. <i>Exploration Geophysics</i> , 2014, 45, 147-153.	1.1	10
25	Detection of a perfect conductor with an airborne electromagnetic system: The Gemini Field Test. <i>Geophysics</i> , 2013, 78, E249-E259.	2.6	6
26	Detection and correction of SPM effects in airborne EM surveys. <i>Exploration Geophysics</i> , 2013, 44, 6-15.	1.1	21
27	Correcting for SPM effects in airborne EM. <i>ASEG Extended Abstracts</i> , 2013, 2013, 1-4.	0.1	1
28	Ultra-Fast 3D parameterised AEM inversion using spectral methods. <i>ASEG Extended Abstracts</i> , 2013, 2013, 1-4.	0.1	3
29	Joint sensing of B and dB/dt responses. <i>ASEG Extended Abstracts</i> , 2013, 2013, 1-4.	0.1	5
30	Induced polarization in airborne EM. <i>Geophysics</i> , 2012, 77, E317-E327.	2.6	53
31	3D EM Inversion: an Update on Capabilities and Outcomes. <i>Preview</i> , 2012, 2012, 24-27.	0.1	2
32	Design and testing of ARMIT magnetic field sensors for EM systems. <i>ASEG Extended Abstracts</i> , 2012, 2012, 1-3.	0.1	18
33	Dispersion constraints and the Hilbert transform for electromagnetic system response validation. <i>Exploration Geophysics</i> , 2011, 42, 1-6.	1.1	2
34	Inversion of low-induction number conductivity meter data to predict seasonal saturation variation. <i>Geophysics</i> , 2011, 76, F395-F406.	2.6	3
35	Near-surface resistivity contrast mapping with a capacitive sensor array and an inductive source. <i>Geophysics</i> , 2011, 76, G13-G23.	2.6	1
36	Airborne EM system comparison. , 2011, , .		2

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37	The effect of pendulum on tethered TEM systems and quantitative modeling. , 2010, , .		0
38	Electric Field measurements in air. , 2010, , .		0
39	Remote resistivity contrast mapping using the CARIS system at Terme de Caracalla archaeological site, Rome, Italy. Near Surface Geophysics, 2010, 8, 195-202.	1.2	3
40	Reprocessing strategy to obtain quantitative early time data from historic VTEM surveys. ASEG Extended Abstracts, 2010, 2010, 1-4.	0.1	19
41	Transformation of coincident loop EM data to an equivalent potential field response. ASEG Extended Abstracts, 2010, 2010, 1-4.	0.1	1
42	Breaks in lithology: Interpretation problems when handling 2D structures with a 1D approximation. Geophysics, 2010, 75, WA179-WA188.	2.6	19
43	Inversion of concentric loop electromagnetic data by transformation to an equivalent potential field response. Exploration Geophysics, 2010, 41, 240-249.	1.1	4
44	Predictive filter calculation of primary fields in a fixed-wing time-domain AEM system. Geophysics, 2010, 75, F97-F106.	2.6	7
45	Deep conductor delineation through improved EMFlow data processing. ASEG Extended Abstracts, 2010, 2010, 1-4.	0.1	7
46	Predictions of bird swing from GPS coordinates. Geophysics, 2009, 74, F119-F126.	2.6	14
47	Quantifying AEM system characteristics using a ground loop. Geophysics, 2008, 73, F179-F188.	2.6	25
48	Measuring AEM waveforms with a ground loop. Geophysics, 2008, 73, F213-F222.	2.6	18
49	HEM calibration and bird swing correction: An insular example. , 2008, , .		1
50	Estimating subsurface porosity and salt loads using airborne geophysical data. Near Surface Geophysics, 2008, 6, 31-37.	1.2	10
51	Amplitude and phase correction of helicopter EM data. Geophysics, 2007, 72, F119-F126.	2.6	11
52	Pendulum motion in airborne HEM systems. Exploration Geophysics, 2006, 37, 355-362.	1.1	42
53	3D EM at Work Selected Papers. Exploration Geophysics, 2006, 37, 222.	1.1	1
54	Identification of calibration errors in helicopter electromagnetic (HEM) data through transform to the altitude-corrected phase-amplitude domain. Geophysics, 2006, 71, G27-G34.	2.6	18

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55	Electrical and EM methods, 1980â€“2005. The Leading Edge, 2005, 24, s42-s45.	0.7	9
56	A case study of AEM bathymetry in Geographe Bay and over Cape Naturaliste, Western Australia, Part 2: 25 and 12.5 Hz GEOTEM. Exploration Geophysics, 2005, 36, 381-392.	1.1	13
57	Rapid Estimation of Shallow Seawater Depth from Airborne Electromagnetics. Exploration Geophysics, 2004, 35, 288-291.	1.1	3
58	Model-Consistent Rescaling to Correct Amplitude Calibration Problems in HEM Data. Exploration Geophysics, 2004, 35, 277-282.	1.1	7
59	Improving the Accuracy of Shallow Depth Determinations in AEM Sounding. Exploration Geophysics, 2004, 35, 203-207.	1.1	8
60	An assessment of the accuracy of boundaries picked by AEM sounding, with application to mineral exploration and salinity mapping. Exploration Geophysics, 2003, 34, 41-45.	1.1	3
61	Improving the accuracy of shallow depth determinations in AEM sounding. ASEG Extended Abstracts, 2003, 2003, 1-5.	0.1	3
62	Evaluation of multifrequency airborne EM for opal prospect definition at Lightning Ridge, NSW. ASEG Extended Abstracts, 2003, 2003, 1-5.	0.1	0
63	Resistive limit modeling of airborne electromagnetic data. Geophysics, 2002, 67, 492-500.	2.6	6
64	Simplified Electrical Structure Models at AEM Scales, Lawlers, Western Australia. Exploration Geophysics, 2001, 32, 29-35.	1.1	7
65	A Geological Interpretation of Observed Electrical Structures in the Regolith: Lawlers, Western Australia. Exploration Geophysics, 2001, 32, 36-47.	1.1	17
66	Electrical Structure of the Regolith in the Lawlers District, Western Australia. Exploration Geophysics, 2001, 32, 20-28.	1.1	7
67	Modeling of the EM inductiveâ€“limit surface currents. Geophysics, 2001, 66, 476-481.	2.6	9
68	The feasibility of electromagnetic gradiometer measurements. Geophysical Prospecting, 2001, 49, 309-320.	1.9	12
69	Modelling the airborne electromagnetic response of a vertical contact. Exploration Geophysics, 2000, 31, 115-125.	1.1	6
70	Physical properties of the regolith in the Lawlers area, Western Australia. Exploration Geophysics, 2000, 31, 229-235.	1.1	7
71	Current channelling in time-domain airborne electromagnetic data. Exploration Geophysics, 2000, 31, 150-157.	1.1	6
72	Bathymetry and Seafloor Mapping Via One Dimensional Inversion  And Conductivity Depth Imaging of AEM. Exploration Geophysics, 2000, 31, 603-610.	1.1	18

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73	Removing the regolith: EM defined structure fails to correct gravity at Elura. Exploration Geophysics, 1999, 30, 115-122.	1.1	5
74	Doubling the effective skin depth with a local source. Geophysics, 1999, 64, 732-738.	2.6	23
75	Measurement of static shift in MT and CSAMT surveys. Exploration Geophysics, 1998, 29, 494-498.	1.1	13
76	The international campaign on intercomparison between electrodes for geoelectrical measurements. Exploration Geophysics, 1998, 29, 484-488.	1.1	11
77	Fast AEM data processing and inversion. Exploration Geophysics, 1998, 29, 163-169.	1.1	157
78	Comments on the electromagnetic "œsmoke ring" concept. Geophysics, 1998, 63, 1908-1913.	2.6	23
79	Evaluating EM waveforms by singular value decomposition of exponential basis functions. Geophysics, 1998, 63, 64-74.	2.6	57
80	Block modelling as a check on the interpretation of stitched CDI sections from AEM data. Exploration Geophysics, 1998, 29, 191-194.	1.1	7
81	Automatic estimation of EM parameters in Tau-Domain. Exploration Geophysics, 1998, 29, 170-174.	1.1	10
82	Can Sulphides be Discriminated from Conductive Slates? A Case History at Dugald River. Exploration Geophysics, 1996, 27, 199-130.	1.1	6
83	Esoteric and Mundane Geophysics for Diamondiferous Pipe Exploration. Exploration Geophysics, 1995, 26, 131-137.	1.1	2
84	Applications of geophysics for the detection and exploration of kimberlites and lamproites. Journal of Geochemical Exploration, 1995, 53, 213-243.	3.2	37
85	6. Time Domain Electromagnetic Prospecting Methods. , 1991, , 427-520.		241
86	Inductive Source Resistivity: A tool for outlining silicification in gold exploration. Exploration Geophysics, 1988, 19, 471-480.	1.1	12
87	Multiple conductor modeling using program MultiLOOP. , 1988, ,		18
88	Case Studies and Modelling Advances in Producing Conductivity- Depth Sections. Exploration Geophysics, 1988, 19, 309-312.	1.1	3
89	Imaging quasi-layered conductive structures by simple processing of transient electromagnetic data. Geophysics, 1987, 52, 545-554.	2.6	114
90	Classification of Sign Changes in Borehole TEM Decays. Exploration Geophysics, 1987, 18, 331-339.	1.1	9

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91	Noise processing techniques for time-domain EM systems. Geophysics, 1984, 49, 934-948.	2.6	135
92	Survey design for multicomponent electromagnetic systems. Geophysics, 1984, 49, 265-273.	2.6	25
93	Kimberlites and exploration geophysics. Geophysics, 1979, 44, 1395-1416.	2.6	60