Abstracts and poster for 7th International IP workshop in Lund, Sweden, May 28th – 30th 2024

Session 1: IP for mineral exploration

Session 2: Tackling ambiguity: Towards a more reliable interpretation of IP signals

Session 3: Characterization of contaminated subsurface and monitoring of dynamic processes

Session 4: From field data acquisition and processing to inversion

Poster number	Author	Title	Session
S1_01	James Macnae	Simple circuits for IP effects	1
S1_02	Virginie Leroux	Measurements of spectral IP on mine tailings	1
S1_03	Veronique Naudet	Very low pH SIP signature of heap-bioleaching	1
S1_04	Kreith, Dennis	Modeling of spectral induced-polarization measurements on cm-sized metallic spheres in sand-water mixtures	1
S1_05	Nuray Oncul	Enhancing Mineral Exploration Using Spectral Induced Polarization: Determining the Faradaic Effect for Electron-Conducting Minerals	1
S1_06	Regean Pitiya	SSIP measurements over a porphyry Cu-Au deposit	1
S1_07	Charles Bérubé	Machine learning of complex conductivity anisotropy	1
S1_08	Farid Ullah	Detection of a new Cu-polymetallic deposit by SSIP	1
S1_09	Francesco Dauti	Inductive Induced Polarization: integration with galvanic DCIP and joint inversion	1
S1_10	Jean-Luc Gagnon	Integration of rock anisotropy in the GEMTIP model	1
S1_11	Tina Martin	Superposition of IP signals measured on pyrite–sand mixtures	1
S2_01	Lukas Römhild	Tackling petrophysical ambiguities in IP-K relations by joint inversion of hydraulic tomography and induced polarization data	2
S2_02	Damien Jougnot	Complex conductivity in heterogeneous media, can we use simple mixing laws on SIP spectra?	2

S2_03	James Macnae	Intrinsic Clay IP using low frequency TDEM data	2
S2_04	Danney Glaser	Laboratory Scale Electromagnetic IP Signatures Using a Saw-Tooth Time-Domain Waveform	2
S2_05	Clément Casotti	Applying Induced Polarization to Characterize Nant des Granges Landslide, Bauges, France.	2
S2_06	Leroy Philippe	Can equivalent circuit models be used for the complex conductivity of clayey materials	2
S2_07	Klaudio Peshtani	On the Reliability of Constraining Surface Conductivity using Induced Polarization Measurements in Sedimentary Rocks	2
S2_08	Daniel Anthony Ciraula	Joint application of time-lapse induced polarization and reactive transport modeling to track subsurface H2S mineral storage at a geothermal site	2
S2_09	Marsel, Janik	Modeling of membrane polarization for arbitrary electrolytes	2
S2_10	Andreas Hördt	Insights into the structural properties of frozen rock,from fitting a 2-component model to high-frequency SIP laboratory data	2
S2_11	Glebe, Ruth	Impact of Pore-Water Velocity on the Spectral Induced Polarization Response of Granular Materials	2
S2_13	Ermis Proestakis	Complex conductivity of diatomites from Fur Formation saturated with NaCl and KCl solutions	2
S2_14	Klitzsch, Norbert	Is it possible to assess the quality of carbonates using IP?	2
S2_15	Abdoul Nasser YACOUBA	Characterization of electrical properties of Beauce Limestones (O-ZNS, France) from SIP measurement	2
S2_16	Luca Peruzzo	Spectral Induced Polarization and Mise-a-la-masse for studying plant roots and root water uptake	2
S2_18	Tina Martin	Estimating hydraulic properties from IP and NMR measurements at field and laboratory scale	2
S3_01	Cora Strobel	Reactive process monitoring via joint induced polarization and transport modeling – new insights from cation exchange experiments	3
S3_02	Rahmani Dadenjani, Ali	Tracking ammonium cation exchange in landfill waste using spectral induced polarization (SIP)	3
S3_03	Na Hao	Spectral induced polarization characterization on the landfill leachate contaminated groundwater remediation using permeable reactive materials	3
S3_04	Siyuan Qiang	Quantitative evaluation of the effect of pore water morphology on complex conductivity saturation exponents of porous media saturated by two immiscible fluid phases	3
S3_05	Deqiang Mao	Unveiling the characteristics of ZVI-AC-sand mixtures in remediating contaminated groundwater using spectral induced polarization	3
S3_06	Jian Meng	Quantitation of solid waste deposits through time domain induced polarization signatures	3

S3_07	Flore Rembert	Direct observation and petrophysical modeling of calcite dissolution with microfluidics and spectral induced polarization	3
S3_08	Robinson, Judith L	Investigating soil organic matter complexation using SIP in microfluidic and column scale experiments	3
S3_09	Davide Melegari	ERT and TDIP survey for mapping of leachate plumes: application to a MSW landfill in central Italy	3
S3_10	Sonya Altzitser	Organic Pollutant Oxidation on Manganese Oxides in Soils - The Role of Calcite Indicated by Geoelectrical and Chemical Analysis	3
S3_11	Sonya Altzitser	Impact of Natural and Synthetic Polymers on Soil Stability: Insights from SIP and Chemical Analysis	3
S3_12	Marco Vasconez Maza	Monitoring metal mobility in mine tailings during electrokinetic forcing using spectral induced polarisation	3
S3_13	Urie Zohore	Experimental and numerical characterization of toluene transport and bioremediation processes using spectral induced polarization	3
S3_14	Hamdi Omar	A new experimental setup for combination of SIP measurements with X-ray µCT scanning: an application to the Gunnuhver geothermal system in Iceland	3
S3_15	Nicolette Filippone	Exploring the Biogeobattery Phenomenon: Implications of Induced Polarization and Magnetic Susceptibility	3
S3_16	Shoker Abbas	Electrical Characterization of Foam Used in Decontamination: Correlation between Foam Drainage and Resistivity	3
S3_17	Arne Mansfeld	The complex electrical response to NaHCO3 diffusion in non equilibrium systems.	3
S3_18	Emerson, Hilary P	Monitoring of sulfur modified iron oxidation with spectral induced polarization	3
S3_19	Lee Slater	Spectral induced polarization signals of soils contaminated by aqueous film forming foam (AFFF) releases	3
S3_20	Reyhaneh Norooz	DCIP monitoring of Älvkarleby test embankment dam	3
S3_21	Torleif Dahlin	DCIP monitoring of a MAR infiltration pond at Vomb	3
S3_22	Ijaz Ahmed	Electrical Detection of Groundwater Leakage Channels by Spread Spectrum Induced Polarization (SSIP) Geophysical Method, Fuquan, Guizhou, China	3
S4_01	Haoran Wang	Capacitive coupling in spectral electrical impedance tomography (sEIT) measurements with a centralized multiplexer	4
S4_02	Schulz, Raphael	Induction effect removal for High-Frequency Induced Polarization data	4
S4_03	Sugand, Madhuri	High-frequency induced polarisation: Data inversion and ice-relaxation modelling	4

S4_04	Fereydoun Sharifi	IP-distorted Transient Electromagnetic data modelling	4
S4_05	Lore Vanhooren	The use of Reciprocals for TDIP in volcanic areas	4
S4_06	Khuram Naveed	Variational Mode Decomposition for Estimating Uncertainties in Time-domain Induced Polarization Data	4
S4_07	Stefano Galli	Investigating induced polarization in Floatem Data	4
S4_08	Arcangela Bollino	Inversion of galvanic time-domain IP data in terms of Debye-Warburg decomposition	4
S4_09	Jian Chen	Three-dimensional vector finite element forward modeling and inversion for airborne electromagnetic data considering induced polarization effect	4
S4_10	Gianluca Fiandaca	Closing the gap between galvanic and inductive induced polarization: EEMverter, a new modelling tool for Electric and Electromagnetic data	4
S4_11	Alessandro Signora	Joint inversion of E&EM data with IP modelling: The HydroGeosITe case study	4
S4_12	Nicole Sullivan	EEMstudio: a QGIS plugin for processing and modelling of electric and electromagnetic data with focus on induced polarization	4
S4_13	Rujun Chen	Principle and application of array spread-spectrum IP technique for large depth of exploration	4
S4_14	Thomas Günther	Inverting time-domain induced polarization field data using Debye discretization	4
S4_15	Matteo Rossi	Processing of Time-Domain Induced Polarization datasets with reciprocal measurements	4
S4_16	Aris Nivorlis	An open-source suite for deployment of automated DCIP monitoring: towards real-time monitoring applications	4