THEORETICAL AND PRACTICAL COMPARISON OF ELECTROMAGNETIC INSTRUMENTS AND METHODS WORKING IN FREQUENCY DOMAIN

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Abstract: The contribution is intended as a methodical help for working groups and research teams providing electromagnetic measurements in frame of applied near surface geophysics. Main theoretical and practical features supported by maps from comparison studies are discussed across commonly used methods independently on producer of measuring apparatus and certain technical solution.

Electromagnetic theory is decomposed to individual crucial factors of induction number and their real influence regarding results of survey. Thus depth range, dipole center distance, frequency, conductivity range and questions of calibration are judged with respect to goals of basic kinds of shallow geophysical survey.

No full paper available.