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New primary reference materials of electrolytic conductivity – preparation and certification

Authors Joanna Dumańska, Anna Pietrzak, Władysław Kozłowski - Central Office of Measures (Główny Urząd Miar)

[certified reference materials](#) [electrolytic conductivity](#) [primary method](#)

Abstract

Methods of preparation and certification of new primary electrolytic conductivity certified reference materials (CRMs), developed in Laboratory of Electrochemistry, are presented. Certification consisting of calibration of RMs by primary method, homogeneity, short-term and long-term stability studies were performed in accordance with ISO Guide 34, ISO Guide 35 and PN-EN ISO/IEC 17025. New primary electrolytic conductivity CRMs reproduce the following values of electrolytic conductivity: 0,01 S/m, 0,1 S/m, 1 S/m and 10 S/m (nominal values) and are the source of traceability for secondary CRMs. Electrolytic conductivity CRMs are used for calibration of measurement devices (conductivity cells and conductivity meters) to ensure the traceability of measurement results (to the SI units – S and m) and their comparability.

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