

SALT ROCK – RESEARCH METHODS OF THE CHEMICAL COMPOSITION

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The publication discusses research issues of selected chemical components of salt rocks. An analysis of withdrawn Polish Standards and an analysis of potential analytical errors that may be made from sample collection to the final result are presented. Possible updates and modifications in selected research methods were indicated, taking into account the available research equipment and the specificity of salt rocks.

There is a need for salt rock analysis, and withdrawn standards need to be updated and modernized. Methodologies included in the withdrawn standards entitled: Salt (Sodium Chloride) from the 1980s are complicated, time-consuming, and some involve the use of unavailable or dangerous reagents. Over the years, no one has taken up the topic of modernizing the above-mentioned standards. It is therefore justified to undertake research work consisting in the selection of appropriate methodologies that will guarantee obtaining reliable results, taking into account the economic and environmental aspects. The publication presents a potential course of action.

The most important component is the analysis of chlorides in salt rocks - the Regulation of the Minister of the Environment on the geological documentation of mineral deposits, specifies the requirements for the minimum weighted average NaCl content in the profile of the deposit of 80%. NaCl is essential to the design of a salt chamber for storage purposes. Underground storage caverns are promising for e.g. hydrogen storage. The construction of cavern underground gas storage facilities is an investment in the country's energy security.