

Measurement with PEMS gas analyzer in real underground mine conditions

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Currently, the extraction of minerals in underground mines is becoming increasingly difficult. There are many natural hazards in underground mines. One of the most dangerous is the gas hazard. To ensure safe working conditions for personnel in the face of gas hazards, it is necessary to constantly monitor environmental parameters and analyze the concentrations of harmful gases. One of the most harmful gases is nitrogen oxides (NO_x), whose presence in an underground mine is mainly related to the technological process.

The article presents measurements of nitrogen oxide and nitrogen dioxide concentrations using a reference method - the AVL Gas PEMS gas analyzer, using the NDUV measurement method. The research was carried out in one of the Polish ore mines. The results were analyzed in the context of the mine's technological cycle.