

Experimental setup and results of xenon sorption characteristics research for a number of adsorbents

A comparative study of methods for extracting xenon from atmospheric air led to the choice of Pressure Swing Adsorption (PSA) technology as the basis for development of a prototype system for noble gas field sampling directly on traps during on-site inspection. The choice of sorbent to use in the system prototype was proposed to be carried out experimentally, by comparative measurements of the sorbing properties of various sorbents. A description of the test bed and research program is provided. The results of the experiments, which make allow evaluating the sorbing properties of a number of sorbents for xenon, are given. Conclusions have been made that allow proceeding to the development of appropriate design and technological solutions for the design of a prototype system for noble gas field sampling directly on traps during on-site inspection.

Primary author: CHERNOV, Mikhail (All-Russia Research Institute of Automatics named after N.L. Dukhov (VNIIA))

Presenter: CHERNOV, Mikhail (All-Russia Research Institute of Automatics named after N.L. Dukhov (VNIIA))

Track Classification: Theme 3. Verification Technologies and Technique Application