

INTRODUCING A NEW SYSTEM FOR BREATH-ALCOHOL MEASUREMENTS IN ALBANIA

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Abstract

The aim of this article is to present a new system for breath-alcohol measurements in Albania, and to ensure traceability of breath alcohol measurements concentrations. Also the system would provide support to the National Authorities, (Police Departments) that are responsible for the concentration measurements of alcohol in breath. The main apparatus consist of a breath analyzer which is designed to determine the concentration of ethanol in air during deep exhalation of air. Metrological and technical requirements are in accordance with the recommendations of OIML (International Organization of Legal Metrology), respectively with R 126 "Evidential breath analyzers". The system components consist of a three flask "bubble train" in a thermostatic bath. The flasks are filled with an ethanol water solution of a known ethanol concentration. The air flowing through the system is cleaned and preheated. Because of its special design this system is used by the General Directorate of Metrology, which allows the relevant measurements of a breath-alcohol analyzer to be tested in one single step. This way, the effective procedure was drawn up with the purpose to allow the instruments to be tested at a high metrological level, with an acceptable amount of work, taking reasonable time and being reasonably cost effective.

Keywords: *Breath-alcohol measurement, traceability, bubble train*