Abstract

Simple and sensitive detector based on contactless impedance detection has been tested. The detection cell consists of two insulated wire electrodes placed in a PTFE tube through which the test vapour phase flows. It has been found that the detector is sufficiently sensitive and reliable for determinations of common concentrations of water vapour in the air. Qualitative tests indicate that the vapour of organic solvents can also be monitored. This is the first application of contactless impedance detection of compounds in the gaseous phase based on a new instrumental approach to impedance detection.

Keywords: Impedance detection, Contactless impedance detector, Vapour phase, Relative humidity, Organic solvent vapour