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Licensing Opportunity (Patent Application No. GB1817725.3)

Aerosol Sensor Testing D1743

Overview

The present opportunity is concerned with improved systems and methods for testing and calibrating aerosol sensors or detectors, and especially those concerned with detecting/sensing hazardous chemicals, such as chemical warfare agents.

In order to test aerosol sensors, a well characterised aerosol challenge must be generated and supplied to the sensor. Since aerosol sensors, especially toxic chemical aerosol sensors, must be able to detect aerosols across a wide dynamic range, the ability to tune the aerosol concentration of the challenge across this range is critical. Numerous systems and aerosol generation devices have been investigated over the years for their ability to consistently and reproducibly test aerosol sensors/detectors, but there remains the need for more consistent and more reproducible systems and methods.

▪ Key Benefits

An aerosol testing system has been developed which incorporates a vibrating mesh nebuliser. The vibrating mesh nebuliser is capable of varying the drive frequency across five orders of magnitude to provide a wide range of aerosol concentration levels. This variation in drive frequency also enables rapid switching between different concentration regimes.

▪ Applications

Systems for testing and calibrating aerosol sensors/detectors, for example sensors/detectors for aerosolised toxic industrial chemicals. In order to test an aerosol sensor/detector for its ability to sense or detect an aerosol, variable concentrations are required, with concentrations often needing to differ by several orders of magnitude.

▪ IP Status

GB patent application is awaiting the first examination report.

▪ Commercial Opportunity

Opportunity for improved systems and services for testing and calibration of aerosol sensors or detectors, and especially those concerned with detecting/sensing hazardous chemicals. Market may include manufacturers of sensor systems that require testing and calibration.