

Title (en)  
GAS DETECTION DEVICE AND METHOD

Title (de)  
VORRICHTUNG UND VERFAHREN ZUM GASNACHWEIS

Title (fr)  
DISPOSITIF DE DETECTION DE GAZ ET PROCEDE

Publication  
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Application  
**EP 98937671 A 19980805**

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Abstract (en)  
[origin: WO9908102A1] A gas detection device for distinguishing at a single point, two simultaneously emitted gases and, and in particular, for measuring the individual concentration of each gas at the point, comprising two flow passages into which a sample comprising the two gases is input, gas induction means for drawing the sample into and through the flow passages and means for irradiating each of the flow passages with ultraviolet radiation of a different energy. The device may comprise two sources of ultraviolet radiation, wherein each of the sources (e.g. a krypton and an argon lamp) emits radiation into one of the flow passages. Upon irradiation of the gases (e.g. propane and propylene) within the sample the gases are ionised, one of them being ionised by radiation in one of the flow passages and the other being ionised by radiation in both of the flow passages. Each flow passage has an associated bias electrode, and a collector electrode which are arranged downstream of the irradiated flow passages. The currents at the collector electrodes give an indication of the ionised gas (or gases) in each flow passage. The invention also relates to a method of measuring, at a single point, the individual concentrations of two simultaneously emitted gases. This measurement may be used in the development of models and other tools for determining, for example, gas hazard or nuisance. The device and method have particular application in environmental pollution monitoring, atmospheric tracer gas detection and in the monitoring of gas or vapour emitting processes.

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