

Title (en)

Device and method for detecting a chemical substance of known mass M, and known dissociation fragments in a gas to be analysed.

Title (de)

Vorrichtung und Verfahren zum Nachweis einer chemischen Substanz bekannter Masse M und bekannter fragmentierter Dissoziationselemente in einem zu analysierenden Gas.

Title (fr)

Appareil et procédé de détection dans une atmosphère à surveiller d'un corps chimique de masse M connue et dont on connaît les fragments de dissociation.

Publication

EP 0430774 B1 19940928 (FR)

Application

EP 90403304 A 19901122

Priority

FR 8915478 A 19891124

Abstract (en)

[origin: EP0430774A1] Method for detecting a chemical substance of known mass M in an atmosphere to be monitored, with the aid of a device for ionizing this atmosphere and for dissociating, filtering and detecting the ions formed, comprising, inside an evacuated enclosure and in this order over the trajectory of the ions: - an ion source (1), - a dissociation chamber (3) brought to ground potential, - an electrostatic analyzer (4), - a detector (5) of the ions having traversed the above device, characterised in that: - the voltage V0 for extracting the ions from the ion source (1) is fixed at a constant value; - the energy level W of filtering of the electrostatic analyzer (4) is varied so as to possibly detect in the detector (5) the ionic fragments m1,...mk of dissociation of the substance with mass M which pass beyond the electrostatic analyzer with energies $(m1/M)eVo = W1$, $(m2/M)eVo = W2...$ $(mk/M)eVo = Wk$ and enable the presence of the substance with mass M to be attested. <IMAGE>

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CPC (source: EP US)

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