

Title (en)

METHOD AND APPARATUS FOR CHEMICAL IONIZATION OF A GAS MIXTURE

Title (de)

VERFAHREN UND VORRICHTUNG ZUR CHEMISCHEN IONISATION EINES GASGEMISCHES

Title (fr)

PROCÉDÉ ET DISPOSITIF D'IONISATION CHIMIQUE D'UN MÉLANGE DE GAZ

Publication

**EP 3243210 A1 20171115 (DE)**

Application

**EP 16709715 A 20160224**

Priority

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- EP 2016053833 W 20160224

Abstract (en)

[origin: WO2016135179A1] A method and apparatus for chemical ionization of analyte gas particles in a carrier gas by introducing primary ions, characterized in that the primary and product ions are accelerated by a rotating electrical field at right angles to that direction (5) in which the ions are transported towards the exit (3) of the reaction volume (1). This can, for example, reduce unwanted cluster formation without increasing the transport speed of the ions through the reaction chamber, which improves, for example, the product ion yield. The apparatus of the invention achieves this by means of  $N \geq 3$  bar electrodes (6) to which  $N$  AC voltages  $U_1(t), \dots, U_N(t)$  with  $N$  different phases ascending in one sense of rotation  $\varphi_1, \dots, \varphi_N$ .

IPC 8 full level

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CPC (source: CN EP US)

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Citation (search report)

See references of WO 2016135179A1

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