

Title (en)

MASS SPECTROMETRY METHOD FOR ANALYSING MIXTURES OF SUBSTANCES

Title (de)

MASSENSPEKTROMETRISCHES VERFAHREN ZUR ANALYSE VON SUBSTANZGEMISCHEN

Title (fr)

PROCEDE DE SPECTROMETRIE DE MASSE POUR ANALYSER DES MELANGES DE SUBSTANCES

Publication

EP 1481416 A1 20041201 (DE)

Application

EP 03711878 A 20030210

Priority

- DE 10208626 A 20020228
- DE 10208625 A 20020228
- EP 0301274 W 20030210

Abstract (en)

[origin: WO03073464A1] The invention relates to a mass spectrometry method for analysing mixtures of substances using a triple quadrupole mass spectrometer, whereby said mixtures of substances are ionised prior to analysis. The invention is characterised in that the method comprises the following steps: a) selection of a mass/charge quotient (m/z) of an ion created by ionisation in a first analytical quadrupole (I) of the mass spectrometer; b) fragmentation of the ion selected in step (a) by applying an acceleration voltage in an additional subsequent quadrupole (II), which is filled with a collision gas and acts as a collision chamber; c) selection of a mass/charge quotient of an ion created by the fragmentation process in step (b) in an additional subsequent quadrupole (III), whereby steps (a) to (c) of the method are carried out at least once; and d) analysis of the mass/charge quotients of all the ions present in the mixture of substances as a result of the ionisation process, whereby the quadrupole (II) is filled with collision gas, but no acceleration voltage is applied during the analysis. Steps (a) to (c) and step (d) can also be carried out in reverse order.

IPC 1-7

H01J 49/42

IPC 8 full level

G01N 27/62 (2006.01); **H01J 49/00** (2006.01); **H01J 49/10** (2006.01); **H01J 49/42** (2006.01)

CPC (source: EP US)

H01J 49/005 (2013.01 - EP US); **H01J 49/421** (2013.01 - EP US)

Citation (search report)

See references of WO 03073464A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

WO 03073464 A1 20030904; AU 2003218649 A1 20030909; AU 2003218649 B2 20070906; CA 2476597 A1 20030904; CA 2476597 C 20110517; EP 1481416 A1 20041201; EP 1481416 B1 20160615; ES 2590759 T3 20161123; IL 163290 A 20140130; JP 2005526962 A 20050908; JP 2010019848 A 20100128; JP 2014041142 A 20140306; NO 20043943 L 20040921; US 2005103991 A1 20050519; US 7196323 B2 20070327

DOCDB simple family (application)

EP 0301274 W 20030210; AU 2003218649 A 20030210; CA 2476597 A 20030210; EP 03711878 A 20030210; ES 03711878 T 20030210; IL 16329004 A 20040729; JP 2003572064 A 20030210; JP 2009218884 A 20090924; JP 2013213955 A 20131011; NO 20043943 A 20040921; US 50515404 A 20040820