

Title (en)  
Method and apparatus for the determination of the state of organisms and natural products and for the analysis of gaseous mixtures having main components and secondary components

Title (de)  
Verfahren und Vorrichtung zur Beurteilung des Zustandes von Organismen und Naturprodukten sowie zur Analyse einer gasförmigen Mischung mit Haupt- und NebenkompONENTEN

Title (fr)  
Méthode et dispositif pour la détermination de l' état d'organismes et de produits naturels ainsi que pour l'analyse de mélanges gazeux comprenant des composantes principales et secondaires

Publication  
**EP 1217643 B1 20080910 (DE)**

Application  
**EP 00127558 A 20001215**

Priority  
EP 00127558 A 20001215

Abstract (en)  
[origin: EP1217643A1] Evaluation of the condition of organisms or natural products which emit substances into the atmosphere comprises determination of one or more of these substances in a gaseous mixture. This is achieved by irradiation with an ion beam under a high vacuum in a mass spectrometer and evaluation of the spectrum produced. Independent claims are included for: (a) a method for analyzing a gaseous mixture containing a main component (concentration not less than 0.1 vol%) and a minor component (concentration not more than 0.1 vol%) by irradiation with an ion beam under a high vacuum in a mass spectrometer and evaluation of the spectrum produced; and (b) apparatus for analyzing a gaseous mixture comprising a mass spectrometer fitted with a gas supply system (1 - 4) in which the sample forms an molecular stream in an intermediate vacuum chamber (24) held under constant vacuum and then, using a pressure gradient across a capillary (10) connected to this, producing a second molecular stream in a high vacuum chamber (22).

IPC 8 full level  
**G01N 27/62** (2006.01); **H01J 49/04** (2006.01); **A61B 5/08** (2006.01); **A61B 5/083** (2006.01); **H01J 49/06** (2006.01); **H01J 49/14** (2006.01)

CPC (source: EP KR US)  
**H01J 49/04** (2013.01 - KR); **H01J 49/145** (2013.01 - EP US)

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**EP 1217643 A1 20020626**; **EP 1217643 B1 20080910**; AT E408237 T1 20080915; CN 100481309 C 20090422; CN 1533585 A 20040929; DE 50015353 D1 20081023; DK 1217643 T3 20090119; EP 1342254 A2 20030910; JP 2004517340 A 20040610; JP 4316883 B2 20090819; KR 100885654 B1 20090225; KR 20030072361 A 20030913; US 2004046567 A1 20040311; US 6982416 B2 20060103; WO 02058106 A2 20020725; WO 02058106 A3 20030410

DOCDB simple family (application)  
**EP 00127558 A 20001215**; AT 00127558 T 20001215; CN 01820584 A 20011214; DE 50015353 T 20001215; DK 00127558 T 20001215; EP 0114804 W 20011214; EP 01986885 A 20011214; JP 2002558304 A 20011214; KR 20037007736 A 20030610; US 43337003 A 20030922