

Title (en)
MS-MS-flight time mass spectrometer.

Title (de)
MS-MS-Flugzeit-Massenspektrometer.

Title (fr)
Spectromètre à temps de vol MS-MS.

Publication
EP 0403965 B1 19941026 (DE)

Application
EP 90111293 A 19900615

Priority
DE 3920566 A 19890623

Abstract (en)
[origin: EP0403965A2] In the MS-MS flight time mass spectrometer, a local focus of the ion source is determined with a second order correction. With suitable selection of the geometrical and electrical variables of the ion source, this local focus is created such that a very good primary mass resolution is possible therein if suitable methods for secondary access are selected. <??>The secondary access to the local focus takes place a) in the form of a focused, pulsed laser beam or other pulsed access methods which can be focused, b) in the form of a meshed network of very fine "line combs", engaging in one another, to which voltage pulses can be applied, c) in the form of a combination of a) and/or b) with an electrostatically elevated, primary drift path which is free of fields. <??>The MS-MS flight time mass spectrometer is operated with a reflector mirror which is provided with a moving reflector end plate with a voltage which can be readjusted, and makes possible elimination of primary ions from the spectrum without any loss of mass resolution. As a result of suitable matching of the reflector fields and suitable selection of an observation window in the flight time spectrum, a secondary mass spectrum generated in the local focus can be measured. <IMAGE>

IPC 1-7
H01J 49/40

IPC 8 full level
H01J 49/40 (2006.01)

CPC (source: EP US)
H01J 49/004 (2013.01 - EP US); **H01J 49/40** (2013.01 - EP US)

Cited by
EP0456517A3; EP0587707A4; DE19631162A1; US5854484A; GB2303962A; GB2303962B; DE19631161A1; US5854485A; US5654545A; DE19544808A1; US5734161A; DE19544808C2; WO9533279A1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0403965 A2 19901227; EP 0403965 A3 19910731; EP 0403965 B1 19941026; DE 3920566 A1 19910110; DE 3920566 C2 19930401; DE 59007546 D1 19941201; US 5032722 A 19910716

DOCDB simple family (application)
EP 90111293 A 19900615; DE 3920566 A 19890623; DE 59007546 T 19900615; US 54114090 A 19900620