

Title (en)
Tandem time-of-flight mass spectrometer with collision cell

Title (de)
Flugzeit-Flugzeit-Massenspektrometer mit Kollisionszelle

Title (fr)
Spectromètre à temps de vol en tandem avec chambre de collision

Publication
EP 0822574 B1 20030205 (DE)

Application
EP 97112631 A 19970723

Priority
DE 19631161 A 19960801

Abstract (en)
[origin: EP0822574A1] The mass spectrometer has an ion source (21), a reflector (33), and a detector (34). There is a collision cell (22) containing an impurity gas, in which primary ions are fractured to produce fragment ions by collision with the impurity atoms or molecules. Each of several different pressure regions of the mass spectrometer has a vacuum pump connection (6,7,8). The regions are connected via the gas flow impedances (4,5,32). One region is a reflector chamber (3) containing the reflector. A further region is a scattering chamber (2) containing the collision cell, which is arranged before the reflector chamber in the ion flight direction.

IPC 1-7
H01J 49/40

IPC 8 full level
H01J 49/40 (2006.01)

CPC (source: EP US)
H01J 49/005 (2013.01 - EP US); **H01J 49/061** (2013.01 - EP US); **H01J 49/40** (2013.01 - EP US)

Designated contracting state (EPC)
AT CH DE FR GB LI

DOCDB simple family (publication)
EP 0822574 A1 19980204; EP 0822574 B1 20030205; AT E232334 T1 20030215; CA 2209119 A1 19980201; DE 19631161 A1 19980212; DE 59709254 D1 20030313; US 5854485 A 19981229

DOCDB simple family (application)
EP 97112631 A 19970723; AT 97112631 T 19970723; CA 2209119 A 19970729; DE 19631161 A 19960801; DE 59709254 T 19970723; US 90324497 A 19970724