

Title (en)
MASS SPECTROMETER

Publication
EP 0237259 A3 19890405 (EN)

Application
EP 87301870 A 19870304

Priority
US 83760086 A 19860307

Abstract (en)
[origin: EP0237259A2] A mass spectrometer includes an ion source (11) for projecting ions along a predetermined path, a detector (31, 32, 33) offset from said path, a quadrupole ion filter or analyzer (26) disposed adjacent said detector (31, 32, 33) to provide its output to the detector, and quadrupole means (36) for directing ions away from said path into said ion filter and analyzer (26). Such a spectrometer produces relatively low noise levels.

IPC 1-7
H01J 49/42

IPC 8 full level
G01N 27/62 (2006.01); **H01J 49/42** (2006.01)

CPC (source: EP)
H01J 49/0045 (2013.01); **H01J 49/4215** (2013.01)

Citation (search report)
• [X] US 3473020 A 19691014 - BRUBAKER WILSON M
• [A] US 3410997 A 19681112 - BRUBAKER WILSON M
• [AD] US 4234791 A 19801118 - ENKE CHRISTIE G, et al
• [A] GB 2129607 A 19840516 - FINNIGAN MAT GMBH
• [A] US 3487207 A 19691230 - LANGLEY ROBERT A
• [A] JOURNAL OF APPLIED PHYSICS, vol. 40, no. 8, July 1969, pages 3127-3134; D.A. CHURCH: "Storage-ring ion trap derived from the linear quadrupole radio-frequency mass filter"

Cited by
US6762407B2; EP2150967A4; US6028308A; EP2801999A1; GB2588292A; GB2588292B; DE19628093A1; DE19628093B4; DE10340849B4; DE10362251B3; EP0771019A1; CN103650101A; GB2436467A; GB2436467B; EP2198448A4; US5481107A; US5663560A; FR2648230A1; GB2225159A; US5036195A; GB2225159B; US5426301A; GB2494228A; GB2494228B; AU778228B2; US6462338B1; US6114691A; EP1695374A4; US7429730B2; US8941058B2; US6891157B2; US5825026A; US5672868A; GB2314967A; US5818041A; GB2314967B; GB2230896A; US5043575A; WO0191159A1; WO9730469A1; WO9962101A1; WO2020021255A1; WO2011061147A1; US8450681B2; US8796638B2; US11328920B2; US11817303B2; US7923681B2; US11367608B2; USRE45386E; US11211238B2; USRE45553E; US10629425B2; US11881387B2; US8796620B2; US11205568B2; US11295944B2; US8803086B2; US9773656B2; US11621156B2; WO2005052984A1; WO9852209A1; WO0113100A3; WO2009036569A1; US8384028B2; US9123516B2; US10593533B2; US11081332B2; US8921803B2; US11342175B2; US11587779B2; US10741376B2; US11239067B2; US11756782B2; US8507850B2; US8723107B2; US10950425B2

Designated contracting state (EPC)
CH DE FR GB IT LI NL SE

DOCDB simple family (publication)
EP 0237259 A2 19870916; EP 0237259 A3 19890405; CA 1249381 A 19890124; JP S62264546 A 19871117

DOCDB simple family (application)
EP 87301870 A 19870304; CA 531311 A 19870306; JP 5182587 A 19870306