

Title (en)
HIGH INTENSITY MASS SPECTROMETER WITH SIMULTANEOUS MULTIPLE DETECTION

Publication
EP 0151078 A3 19860820 (FR)

Application
EP 85400127 A 19850125

Priority
FR 8401332 A 19840127

Abstract (en)
[origin: US4638160A] Between the electrostatic sector (SE 23) and the magnetic sector (SM 30) of a mass spectrometer, there is provided a quadrupole (QP 26) which applies parallel beams to the magnetic sector whose inclination depends on the energy dispersion of the particles. A slotted lens (LF 27) corrects the divergence of the quadrupole in the perpendicular plane. A suitable relationship between the angle of the inlet face of the magnetic sector (SM 30) and the deflection angle provided thereby ensures that the second order aperture aberrations of the magnetic sector are corrected. The chromatic aberrations may be corrected by means of a hexapole (HP 25) centered on the focus of the quadrupole (QP 26). Another hexapole (HP 22) placed upstream from the electrostatic sector (SE 23) level with a constriction in vertical section of the particle beam serves to correct second order aperture aberrations related to the electrostatic sector (SE 23).

IPC 1-7
H01J 49/32

IPC 8 full level
H01J 49/06 (2006.01); **G01N 27/62** (2006.01); **H01J 49/32** (2006.01)

CPC (source: EP US)
H01J 49/322 (2013.01 - EP US); **H01J 49/326** (2013.01 - EP US)

Citation (search report)
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• [A] GB 2079039 A 19820113 - JEOL LTD
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• [A] NUCLEAR INSTRUMENTS & METHODS, vol. 153, no. 2/3, juin 1978, pages 407-414, North-Holland Publishing Co., Amsterdam, NL; S. TAYA et al.: "Second-order image aberration correction of double-focusing mass spectrometers by electrostatic hexapole lens"

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GB2178893B; EP0473488A3; FR2620858A1

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

DOCDB simple family (publication)
EP 0151078 A2 19850807; EP 0151078 A3 19860820; EP 0151078 B1 19891227; DE 3575048 D1 19900201; FR 2558988 A1 19850802; FR 2558988 B1 19870828; JP H0359544 B2 19910910; JP S6110843 A 19860118; SU 1600645 A3 19901015; US 4638160 A 19870120

DOCDB simple family (application)
EP 85400127 A 19850125; DE 3575048 T 19850125; FR 8401332 A 19840127; JP 1274785 A 19850128; SU 3850145 A 19850125; US 69524085 A 19850128