

Title (en)

PERMANENT MAGNET ION TRAP AND MASS SPECTROMETER USING SUCH A MAGNET

Title (de)

PERMANENTMAGNET-IONENFALLE UND MASSENSPEKTROMETER MIT EINEM SOLCHEN MAGNETEN

Title (fr)

PIEGE A IONS A AIMANT PERMANENT ET SPECTROMETRE DE MASSE UTILISANT UN TEL AIMANT

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Application

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Abstract (en)

[origin: WO03069651A1] Disclosed is a vacuum ion trap comprising a sealed processing space (4) and a permanent magnet (30) which defines a cavity (32) and creates a directed magnetic field (B) in said cavity (32). The sealed space (4) is arranged in the cavity (32) and houses a confinement cell comprising at least two trapping electrodes which are located parallel to each other and perpendicular to the directed magnetic field (B) and are connected to a voltage generator (12). The inventive ion trap comprises at least one permanent magnet (30) which is shaped as a hollow cylinder and structured like a Halbach cylinder so as to create a permanent magnetic field (B) that lies perpendicular to the longitudinal axis (XX') of the cavity of said magnet (30). The invention applies particularly to Fourier-transform ion cyclotron resonance (FTICR) mass spectrometry.

IPC 8 full level

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