

ABSTRACT

[0065] The invention relates to a mass spectrometer, comprising an ion guide having a plurality of electrodes that are supplied with a radio frequency voltage to facilitate radial confinement of ions in an internal volume defined by inward facing surfaces of the electrodes, the internal volume including a first section having a variable radial diameter along a longitudinal axis of the ion guide, in which the electrodes are helically wound, and an adjacent second section having a substantially constant radial diameter along the longitudinal axis, wherein the electrodes extend from the first section to the second section continuously. The continuous nature of the ion guide electrodes facilitates in particular unhindered axial propagation of ions through the assembly and prevents ion losses during their transmission through different compartments of the mass spectrometer.

Figure 7