

ABSTRACT

[0067] The disclosure relates to a mass spectrometer, comprising (a) a vacuum recipient containing ion handling elements of the mass spectrometer, the vacuum recipient having a plurality of walls which define a gastight volume and comprise at least one of an entrance and exit, wherein different portions of an ion path pass at least one of the entrance and exit and run through the gastight volume; and (b) a gastight radio frequency ion guide having an ion passage along an axis and being mounted gastight to at least one of the entrance and exit as to continue the ion path in its ion passage outside the gastight volume. Embodiments of the disclosure facilitate, in particular, reducing pumping volumes in the mass spectrometer and corresponding pumping requirements as well as lowering the size and weight of such an assembly.

FIGURE 1A