

ION GUIDE AND ELECTRODE FOR ITS ASSEMBLY

ABSTRACT OF THE DISCLOSURE

An ion guide that transports ions from an ion source at generally a high pressure level to a mass analyser at generally a low-pressure level has a plurality of identical electrodes fabricated with protruding elements that form an ion tunnel or an ion funnel, when the electrodes are assembled around a common longitudinal axis. The protruding elements allow the generation of the radio frequency field necessary to radially confine ions. Each electrode may be machined from a solid block of conductive material, such as metal. The disclosed arrangement greatly simplifies the manufacturing process, reducing cost, and improving robustness and reliability of the ion guide itself.

(Fig. 10)