

Title (en)
ION PUMP WITH A CURRENT PROPORTIONAL TO THE PUMPED QUANTITY

Publication
EP 0200641 B1 19890816 (FR)

Application
EP 86400885 A 19860423

Priority
FR 8506160 A 19850423

Abstract (en)
[origin: EP0200641A1] 1. An ion pump with a current proportional to the pumped quantity, comprising : a chamber (1) whose inside wall is lined at least partly with a chemically active metallic trapping material (2), such as titanium ; an electrode (3) connected to an electric conductor (5) enclosed at its entry into the chamber (1) by an electric insulating member (7) bearing a member (12) which forms a baffle protecting the electric insulating member (7) and ensures the anodic polarity, the electric supply and the fixing in the chamber (1) of the electrode disposed inside the chamber and electrically insulated from the walls (1a) of the chamber ; an electric supply means (6) for the electrode ; and a magnetic circuit (10) creating a magnetic field in the chamber (1), the electrode (3) being formed by a metal wire structure bounding at least one cell inside the chamber (1) and thus forming a Faraday cage, characterized in that the electrode (3) comprises two substantially flat metal wire networks (13, 14; 13', 14'; 23, 24) interconnected by wires (16, 16'; 28, 29) substantially perpendicular to the planes of the networks (13, 14; 13', 14'; 23, 24) ; the member (12) borne by the conductor (5) is a hollow disc comprising a cylindrical peripheral edge directed towards the wall (1a) of the chamber (1) through which the conductor (5) extends ; and a projecting portion (11) of the cylindrical wall (1a), having a diameter smaller than the diameter of the hollow disc (12), enters the inside of the hollow disc (12) over a certain length.

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