

Title (en)

Electron cyclotron resonance ion source with coaxial injection of electromagnetic waves.

Title (de)

Elektronzyklotronresonanz-Ionenquelle mit koaxialer Zuführung elektromagnetischer Wellen.

Title (fr)

Source d'ions à résonance cyclotronique électronique et à injection coaxiale d'ondes électromagnétiques.

Publication

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Application

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Priority

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Abstract (en)

[origin: EP0532411A1] The invention relates to an ECR ion source comprising an enclosure (1) containing a plasma of ions and electrons and a magnetic structure (11) which surrounds the enclosure and creates two magnetic fields therein, radial and axial, providing for a confinement in the enclosure. A transition cavity (20) is connected to the enclosure by way of a first and a second pipeline (21, 52) which provide for the transmission of the said waves to the enclosure: the first pipeline is conducting and the second pipeline, arranged at the centre of the first, is partly conducting and allows a preionised gas to be introduced into the enclosure. The enclosure and the second pipeline are connected to two electrical supply sources of like polarity. The invention has applications within the area of particle accelerators. <IMAGE>

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