Title (en)

ELECTRON CYCLOTRON RESONANCE NEGATIVE ION SOURCE

Publication

EP 0199625 B1 19890322 (FR)

Application

EP 86400726 A 19860404

Priority

FR 8505461 A 19850411

Abstract (en)

[origin: US4757237A] An electron cyclotron resonance negative ion source comprises an enclosure containing a gas or vapor of a material for forming a plasma, means for injecting into the enclosure a high frequency electromagnetic field forming electrons by ionizing the gas or vapor, means for producing within the enclosure an axially symmetric magnetic field whose amplitude increases along the axis of symmetry, whereby said amplitude, which is at a maximum in the vicinity of and upstream of the negative ion extraction zone, having in the central region of the enclosure a value for which the electron cyclotron resonance condition is satisfied, as well as means for extracting the negative ions formed, brought to a positive potential compared with the enclosure.

IPC 1-7

H01J 27/02; H01J 27/18

IPC 8 full level

G21K 1/14 (2006.01); **H01J 27/02** (2006.01); **H01J 27/18** (2006.01); **H05H 7/08** (2006.01)

CPC (source: EP US)

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EP 86400726 A 19860404; DE 3662576 T 19860404; FR 8505461 A 19850411; JP 8403686 A 19860411; US 84948986 A 19860408