

Title (en)  
Ion source with closed electron drift

Title (de)  
Ionenquelle mit geschlossener Elektronendrift

Title (fr)  
Source d'ions à dérive fermée d'électrons

Publication  
**EP 0781921 B1 20020529 (FR)**

Application  
**EP 96402873 A 19961223**

Priority  
FR 9515718 A 19951229

Abstract (en)  
[origin: EP0781921A1] The ion source with a closed flow of electrons comprises a main annular ionisation and acceleration channel (122) which is open at its downstream end. At least one internal wall of this channel is made of an electrically conducting material. Terminal pieces (164,165) are held at a potential which is lower than that of the anode (125) extending the annular channel downstream of the anode. The source of ions comprises a hollow cathode (140). A supply of ionisable gas is associated with the cathode (140) and with the anode (125). A circuit is provided to bias the anode, and a further components are provided to create a magnetic field in the region of the main annular channel (122).

IPC 1-7  
**F03H 1/00**; H05H 1/54; H01J 27/14

IPC 8 full level  
**F03H 1/00** (2006.01); **H01J 27/14** (2006.01); **H05H 1/54** (2006.01)

CPC (source: EP US)  
**F03H 1/0075** (2013.01 - EP US); **H01J 27/143** (2013.01 - EP US); **H05H 1/54** (2013.01 - EP US)

Cited by  
CN105245132A; EP0982976A1; FR2782884A1; EP0879959A1; US5892329A; FR3040442A1; US6281622B1; FR3066557A1; CN110799751A; WO0063459A1; WO2017037062A1; WO2018210929A1

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