

Title (en)

MAGNETIC FLUX SHAPING IN ION ACCELERATORS WITH CLOSED ELECTRON DRIFT

Title (de)

MAGNETFELDGESTALTUNG IN IONENBESCHLEUNIGERN MIT GESCHLOSSENER ELEKTRONENLAUFBAHN

Title (fr)

MISE EN FORME DU FLUX MAGNETIQUE DANS DES ACCELERATEURS D'IONS A COURANT D'ELECTRONS FERME

Publication

**EP 1082540 B1 20020821 (EN)**

Application

**EP 99931754 A 19990603**

Priority

- US 9912402 W 19990603
- US 8816498 P 19980605
- US 9226998 P 19980710
- US 19174998 A 19981113

Abstract (en)

[origin: WO9963221A2] A specially designed magnetic shunt is provided encircling the anode region and/or annular gas distribution area of an ion accelerator with closed electron drift. The magnetic shunt is constructed to concentrate the magnetic field at the ion exit end, such that the location of maximum magnetic field strength is located downstream from the inner and outer magnetic poles of the accelerator. The specially designed shunt also results in desired curvatures of magnetic field lines upstream of the line of maximum magnetic field strength, to achieve a focusing effect for increasing the life and efficiency of accelerator.

IPC 1-7

**F03H 1/00**

IPC 8 full level

**F03H 1/00** (2006.01)

CPC (source: EP)

**F03H 1/0075** (2013.01)

Designated contracting state (EPC)  
BE DE FR GB IT

DOCDB simple family (publication)

**WO 9963221 A2 19991209; WO 9963221 A3 20000224;** AU 4818699 A 19991220; DE 69902589 D1 20020926; DE 69902589 T2 20030522;  
EP 1082540 A2 20010314; EP 1082540 B1 20020821; IL 139487 A0 20011125; IL 139487 A 20040219; JP 2002517661 A 20020618;  
JP 4294867 B2 20090715

DOCDB simple family (application)

**US 9912402 W 19990603;** AU 4818699 A 19990603; DE 69902589 T 19990603; EP 99931754 A 19990603; IL 13948799 A 19990603;  
JP 2000552397 A 19990603