

Title (en)

CHANNEL SPARK SOURCE FOR GENERATING A STABLY FOCUSSED ELECTRON BEAM

Title (de)

KANALFUNKENQUELLE ZUR ERZEUGUNG EINES STABIL GEBÜNDELTEN ELEKTRONENSTRAHLS

Title (fr)

SOURCE D'ETINCELLE DE CANAL CONCUE POUR PRODUIRE UN FAISCEAU ELECTRONIQUE STABLEMENT FOCALISE

Publication

**EP 1479090 A2 20041124 (DE)**

Application

**EP 03702521 A 20030124**

Priority

- DE 10207835 A 20020225
- EP 0300719 W 20030124

Abstract (en)

[origin: US2005012441A1] In a channel spark source triggered by gas discharge for generating a stable focused electron beam, a gas supply for a hollow cathode thereof is provided which generates in the hollow cathode a pressure differential so that the multiplication of charge carriers in a trigger plasma of a trigger plasma source connected to the hollow cathode provides for a reliable gas discharge and the formation of a stable electron beam which exits the arrangement and which does not damage the internal passages of the arrangement.

IPC 1-7

**H01J 1/02**; **H01J 3/02**; **H05H 1/24**

IPC 8 full level

**C23C 14/30** (2006.01); **H01J 1/02** (2006.01); **H01J 3/02** (2006.01); **H01J 37/077** (2006.01); **H05H 1/24** (2006.01)

CPC (source: EP US)

**H01J 1/025** (2013.01 - EP US); **H01J 3/025** (2013.01 - EP US); **H05H 1/52** (2013.01 - EP US)

Citation (search report)

See references of WO 03071577A2

Cited by

CN111145623A

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT SE SI SK TR

DOCDB simple family (publication)

**US 2005012441 A1 20050120**; **US 7183564 B2 20070227**; AT E321354 T1 20060415; DE 10207835 C1 20030612; DE 50302736 D1 20060511; EP 1479090 A2 20041124; EP 1479090 B1 20060322; JP 2005518637 A 20050623; JP 3906207 B2 20070418; WO 03071577 A2 20030828; WO 03071577 A3 20031224

DOCDB simple family (application)

**US 91583404 A 20040811**; AT 03702521 T 20030124; DE 10207835 A 20020225; DE 50302736 T 20030124; EP 0300719 W 20030124; EP 03702521 A 20030124; JP 2003570382 A 20030124