

Title (en)

EXTERNALLY EXCITED TORROIDAL PLASMA SOURCE

Title (de)

VON AUSSEN ANGEREGTE TORROIDFÖRMIGE PLASMAQUELLE

Title (fr)

SOURCE DE PLASMA TORRO DALE EXT RIEUREMENT EXCIT E

Publication

EP 1307896 A2 20030507 (EN)

Application

EP 01964028 A 20010813

Priority

- US 0125505 W 20010813
- US 63807500 A 20000811
- US 63643500 A 20000811
- US 63717400 A 20000811
- US 63643600 A 20000811
- US 63643400 A 20000811
- US 63669900 A 20000811
- US 63670000 A 20000811

Abstract (en)

[origin: WO0215650A2] A plasma reactor for processing a workpiece, including an enclosure defining a vacuum chamber, a workpiece support within the enclosure facing an overlying portion of the enclosure, the enclosure having at least first and second openings therethrough near generally opposite sides of the workpiece support. At least one hollow conduit is connected to the first and second openings. A closed toroidal path is provided through the conduit and extending between the first and second openings across the wafer surface. A process gas supply is coupled to the interior of the chamber for supplying process gas to the toroidal path. A coil antenna is coupled to an RF power source and inductively coupled to the interior of the hollow conduit and capable of maintaining a plasma in the toroidal path.

IPC 1-7

H01J 37/32

IPC 8 full level

H05H 1/46 (2006.01); **B01J 3/00** (2006.01); **B01J 19/08** (2006.01); **H01J 37/32** (2006.01); **H01L 21/3065** (2006.01)

CPC (source: EP KR)

H01J 37/32082 (2013.01 - EP); **H01J 37/321** (2013.01 - EP KR); **H01J 37/3244** (2013.01 - KR)

Citation (search report)

See references of WO 0215650A2

Designated contracting state (EPC)

DE FR GB IT NL

DOCDB simple family (publication)

WO 0215650 A2 20020221; WO 0215650 A3 20020620; EP 1307896 A2 20030507; JP 2004506339 A 20040226; JP 5204941 B2 20130605;
KR 100809889 B1 20080306; KR 20030029130 A 20030411

DOCDB simple family (application)

US 0125505 W 20010813; EP 01964028 A 20010813; JP 2002519385 A 20010813; KR 20037002020 A 20030211