

Title (en)  
MINIATURIZABLE PLASMA SOURCE

Title (de)  
MINIATURISIERBARE PLASMAQUELLE

Title (fr)  
SOURCE DE PLASMA MINIATURISABLE

Publication  
**EP 2529601 A1 20121205 (DE)**

Application  
**EP 11704740 A 20110128**

Priority  
• DE 102010001395 A 20100129  
• EP 2011051234 W 20110128

Abstract (en)  
[origin: WO2011092298A1] The invention relates to a plasma source comprising an oscillator, which has an active element and a resonator connected to the active element. The resonator comprises a hollow body, a gas inlet, a gas outlet arranged at a distal end of the hollow body about a longitudinal axis of the hollow body, and a coil arranged along the longitudinal axis of the hollow body, the coil having an effective length of one quarter of a wavelength at a resonant frequency of the resonator. A distal end of the coil is arranged relative to the gas outlet such that a plasma section can form between the distal end of the coil serving as a first plasma electrode and the gas outlet of the hollow body serving as a second plasma electrode. At a proximal end of the hollow body, the coil is lead out of the interior of the hollow body through an electrically contact-free feedthrough, and a proximal end of the coil contacts the outside of the hollow body. On a first contact region located between the proximal end of the coil and the feedthrough, the coil is coupled to a first port of the active element, and on a second contact region located between the proximal end of the coil and the feedthrough, it is coupled to a second port of the active element.

IPC 8 full level  
**H05H 1/46** (2006.01)

CPC (source: EP US)  
**H05H 1/46** (2013.01 - EP US); **H05H 1/4652** (2021.05 - EP); **H05H 1/4652** (2021.05 - US); **H05H 2240/10** (2013.01 - EP US); **H05H 2245/60** (2021.05 - EP US)

Citation (search report)  
See references of WO 2011092298A1

Cited by  
DE102020100872A1; DE102020100872B4; WO2021144432A1

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)  
**DE 102010001395 A1 20110804; DE 102010001395 B4 20131114**; EP 2529601 A1 20121205; EP 2529601 B1 20150311; PL 2529601 T3 20150831; US 2012313524 A1 20121213; US 8796934 B2 20140805; WO 2011092298 A1 20110804

DOCDB simple family (application)  
**DE 102010001395 A 20100129**; EP 11704740 A 20110128; EP 2011051234 W 20110128; PL 11704740 T 20110128; US 201113575981 A 20110128