

Title (en)  
APPARATUS FOR GENERATING ACCELERATED ELECTRONS

Title (de)  
VORRICHTUNG ZUM ERZEUGEN BESCHLEUNIGTER ELEKTRONEN

Title (fr)  
DISPOSITIF DE GÉNÉRATION D'ÉLECTRONS ACCÉLÉRÉS

Publication  
**EP 3061115 A1 20160831 (DE)**

Application  
**EP 14787123 A 20141009**

Priority

- DE 102013111650 A 20131023
- EP 2014071680 W 20141009

Abstract (en)  
[origin: WO2015058971A1] The invention relates to an apparatus for generating accelerated electrons, comprising: a housing (101) which delimits an evacuable space (102a; 102b) and has an electron exit window (104); an inlet for supplying a working gas into the evacuable space (102); at least one first cathode (105a; 105b) and at least one first anode (101), between which a corona discharge plasma (106) can be generated in the evacuable space (102a) by means of a first applied electric voltage, wherein ions from the corona discharge plasma (106) can be accelerated onto the surface (110) of a second cathode (107) and electrons emitted by the second cathode (107) can be accelerated in the direction of the electron exit window (104) by means of a second electric voltage applied between the second cathode (107) and a second anode (108), wherein the housing (101), the second cathode (107) and the electron exit window (104) are ring-shaped, and wherein the surface perpendiculars of the electron exit window (104) and the surface region (110) of the second cathode (107) from which the electrons are emitted are oriented towards the ring interior of the ring-shaped housing (101).

IPC 8 full level  
**H01J 33/00** (2006.01); **A23L 3/26** (2006.01); **A61L 2/08** (2006.01); **B01J 19/08** (2006.01); **B65B 55/08** (2006.01); **G21K 5/04** (2006.01); **G21K 5/10** (2006.01)

CPC (source: EP)  
**A23L 3/263** (2013.01); **G21K 5/04** (2013.01); **G21K 5/10** (2013.01); **H01J 17/40** (2013.01); **H01J 33/02** (2013.01); **H01J 33/04** (2013.01)

Citation (search report)  
See references of WO 2015058971A1

Citation (examination)  
"Electron Beam Technology", 1 January 1982, WILEY-INTERSCIENCE, BERLIN, ISBN: 978-0-471-06056-7, article SIEGFRIED SCHILLER ET AL:  
"---", pages: 338 - 339, XP055426952

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

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**DE 102013111650 B3 20150205**; EP 3061115 A1 20160831; WO 2015058971 A1 20150430

DOCDB simple family (application)  
**DE 102013111650 A 20131023**; EP 14787123 A 20141009; EP 2014071680 W 20141009