

Title (en)  
ION GUIDE COMPRISING ELECTRODE PLATES AND ION BEAM DEPOSITION SYSTEM

Title (de)  
IONENLEITER MIT ELEKTRODENPLATTEN UND IONENSTRAHLENABSCHIEDUNGSSYSTEM

Title (fr)  
GUIDE D'IONS COMPRENANT DES PLAQUES D'ÉLECTRODE ET SYSTÈME DE DÉPÔT PAR FAISCEAU IONIQUE

Publication  
**EP 3550589 A1 20191009 (EN)**

Application  
**EP 18165950 A 20180405**

Priority  
EP 18165950 A 20180405

Abstract (en)  
Disclosed herein is an ion guide (42) for guiding an ion beam along an ion path, said ion guide having a centerline (46) corresponding to said ion path, and a plurality of electrodes extending along said centerline. The electrodes are formed by conductive electrode plates (44) which are radially arranged around said centerline (46), wherein each of said electrode plates (44) has a radially inner edge (48) that is closest to the centerline (46), and wherein an inner envelope of the radially inner edges (48) defines an ion guide volume. Said electrode plates (44) are connected or connectable with an RF voltage source for applying voltages collectively confining ions within said ion guide volume.

IPC 8 full level  
**H01J 49/06** (2006.01)

CPC (source: EP)  
**H01J 49/063** (2013.01)

Citation (applicant)  
• MALCOLM DOLE; L.L.MACK; R.L. HINES; R.C.MOBLEY; D.FURGESON; M.BALICE: "Molecular Beams of Macroions", JCHEMPHYS, vol. 49, 1968, pages 2240  
• JOHN B. FENN: "Electrospray Wings for Molecular Elephants (Nobel Lecture)", ANGEWICHEMLNTED, vol. 42, 2003, pages 3871, XP001197483, DOI: doi:10.1002/anie.200300605

Citation (search report)  
• [XYI] US 6441370 B1 20020827 - KHOSLA MUKUL [US], et al  
• [X] US 7582861 B2 20090901 - MUKAIBATAKE KAZUO [JP]  
• [X] US 2014361163 A1 20141211 - TANIGUCHI JUNICHI [JP], et al  
• [Y] GB 2416913 A 20060208 - CAMBUSTION LTD [GB]  
• [Y] US 2017350860 A1 20171207 - RÄTHER OLIVER [DE], et al  
• [A] US 4885500 A 19891205 - HANSEN STUART [US], et al  
• [Y] US 2003157269 A1 20030821 - RATNER BUDDY D [US], et al

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)  
**EP 3550589 A1 20191009**

DOCDB simple family (application)  
**EP 18165950 A 20180405**