

Title (en)
CATHODE ARRANGEMENT

Title (de)
KATHODENANORDNUNG

Title (fr)
AGENCEMENT DE CATHODE

Publication
EP 4163948 A1 20230412 (EN)

Application
EP 21201742 A 20211008

Priority
EP 21201742 A 20211008

Abstract (en)
There is disclosed an X-ray source configured to emit X-ray radiation upon interaction between an electron beam and a target in an interaction region, the X-ray source comprising a first and a second cathode each configured to emit electrons; an anode electrode configured to accelerate the emitted electrons to form the electron beam; and an arrangement configured to select one of the first and the second cathode for emission of electrons towards the anode electrode and directing the electron beam along a pre-defined axis. The arrangement may comprise an actuator that can be configured to move a selected one of the first and the second cathode into an operating position in which the selected one of the cathodes is positioned for emission of electrons towards the anode electrode; or to move the anode electrode into a position in which it is aligned with the selected one of the cathodes. Cathode selection can be made based on one or more of various sensor inputs.

IPC 8 full level
H01J 35/06 (2006.01); **H01J 35/08** (2006.01); **H01J 35/24** (2006.01); **H05G 1/26** (2006.01); **H05G 2/00** (2006.01)

CPC (source: EP)
H01J 35/06 (2013.01); **H01J 35/14** (2013.01); **H01J 35/24** (2013.01); **H01J 2235/064** (2013.01); **H01J 2235/068** (2013.01); **H01J 2235/082** (2013.01); **H05G 1/52** (2013.01)

Citation (applicant)
WO 2020094533 A1 20200514 - EXCILLUM AB [SE]

Citation (search report)
• [X] KR 20080103286 A 20081127 - KOREA ELECTRO TECH RES INST [KR]
• [XY] DE 102011007215 A1 20121018 - SIEMENS AG [DE]
• [Y] JP 2003115398 A 20030418 - SHIMADZU CORP
• [X] KR 20100123987 A 20101126 - KOREA ELECTROTECH RES INST [KR]

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

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4163948 A1 20230412

DOCDB simple family (application)
EP 21201742 A 20211008