

Title (en)
ARRAY OF MULTIPLE CHARGED PARTICLE BEAMLET EMITTING COLUMNS

Title (de)
MATRIX VON LADUNGSTRÄGERSTRAHLEN EMITTIERENDEN SÄULEN

Title (fr)
RESEAU DE COLONNES EMETTANT UNE PLURALITE DE FAISCEAUX DE PARTICULES CHARGEES A TAILLE REDUITE

Publication
EP 1141995 A1 20011010 (EN)

Application
EP 00982596 A 20000831

Priority
• US 0040809 W 20000831
• US 41049299 A 19990930

Abstract (en)
[origin: WO0126134A1] A lithographic apparatus using an array of charged particle (electron) beam columns, where the array includes a plurality of charged particle beam columns that each selectively expose a target to a plurality of charged particle beams. Each charged particle beam column includes a beam source that selectively generates a plurality of charged particle beams; an anode coaxial with the charged particle beams and that accelerates the plurality of charged particle beams from the beam source; and a lens coaxial with the charged particle beams and that demagnifies the charged particle beams. The beam source is a photocathode array that selectively supplies multiple electron beams when illuminated.

IPC 1-7
H01J 37/30; H01J 37/317

IPC 8 full level
G03F 7/20 (2006.01); **H01J 37/073** (2006.01); **H01J 37/28** (2006.01); **H01J 37/30** (2006.01); **H01J 37/305** (2006.01); **H01J 37/317** (2006.01); **H01L 21/027** (2006.01)

CPC (source: EP KR)
B82Y 10/00 (2013.01 - EP); **B82Y 40/00** (2013.01 - EP); **G03F 7/70375** (2013.01 - EP); **H01J 37/30** (2013.01 - KR); **H01J 37/3007** (2013.01 - EP); **H01J 37/3177** (2013.01 - EP); **H01J 2237/31774** (2013.01 - EP); **H01J 2237/31779** (2013.01 - EP)

Citation (search report)
See references of WO 0126134A1

Cited by
US10388489B2

Designated contracting state (EPC)
DE GB NL

DOCDB simple family (publication)
WO 0126134 A1 20010412; AU 1960601 A 20010510; EP 1141995 A1 20011010; JP 2003511855 A 20030325; KR 20010089522 A 20011006

DOCDB simple family (application)
US 0040809 W 20000831; AU 1960601 A 20000831; EP 00982596 A 20000831; JP 2001529004 A 20000831; KR 20017006760 A 20010530