

Title (en)
FABRICATING UNIQUE CHIPS USING A CHARGED PARTICLE MULTI-BEAMLET LITHOGRAPHY SYSTEM

Title (de)
HERSTELLUNG VON EINZIGARTIGEN CHIPS MIT EINEM LITHOGRAFIESYSTEM MIT MEHREREN LADUNGSTRÄGERTEILSTRAHLEN

Title (fr)
FABRICATION DE PUCES UNIQUES À L'AIDE D'UN SYSTÈME DE LITHOGRAPHIE À PETITS FAISCEAUX MULTIPLES DE PARTICULES CHARGÉES

Publication
EP 3563199 A4 20200819 (EN)

Application
EP 17848922 A 20170908

Priority

- US 201662385049 P 20160908
- US 201662413470 P 20161027
- US 201615389581 A 20161223
- US 201762458071 P 20170213
- JP 2017033371 W 20170908

Abstract (en)
[origin: CN109923479A] Method of manufacturing electronic devices using a maskless lithographic exposure system using a maskless pattern writer, wherein beamlet control data is generated for controlling the maskless patternwriter to expose a wafer for creation of the electronic devices. The beamlet control data is generated based on design layout data defining a plurality of structures, such as vias, for the electronicdevices to be manufactured from the wafer, and selection data defining which of the structures of the design layout data are applicable for each electronic device to be manufactured from the wafer, the selection data defining a different set of the structures for different subsets of the electronic devices. Exposure of the wafer according to the beamlet control data results in exposing a patternhaving a different set of the structures for different subsets of the electronic devices.

IPC 8 full level
H01J 37/302 (2006.01); **G03F 7/20** (2006.01); **G06F 21/73** (2013.01); **G06F 30/39** (2020.01); **H01J 37/317** (2006.01); **H04L 9/08** (2006.01)

CPC (source: EP KR)
G03F 7/2059 (2013.01 - KR); **G03F 7/70483** (2013.01 - EP); **G03F 7/705** (2013.01 - EP KR); **G06F 30/39** (2020.01 - KR); **G06F 30/392** (2020.01 - KR); **G06F 30/394** (2020.01 - KR); **H01J 37/3026** (2013.01 - EP); **H01J 37/3177** (2013.01 - EP); **G06F 30/39** (2020.01 - EP); **H01J 2237/31762** (2013.01 - EP); **H01J 2237/31764** (2013.01 - EP)

Citation (search report)

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- [XYI] US 2014170566 A1 20140619 - IVANSEN LARS [SE], et al
- [A] PARKER N W ET AL: "A high throughput electron-beam direct-write lithography system", MICROLITHOGRAPHY WORLD, PENNWELL CORPORATION, US, vol. 9, no. 3, 1 January 2000 (2000-01-01), pages 22, 24 - 25, 30, XP009195346, ISSN: 1074-407X
- See references of WO 2018047985A1

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CN114927410A

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)
CN 109923479 A 20190621; CN 109923479 B 20211130; EP 3563199 A1 20191106; EP 3563199 A4 20200819; JP 2019532502 A 20191107; JP 7221198 B2 20230213; KR 102481733 B1 20221229; KR 20190046963 A 20190507

DOCDB simple family (application)
CN 201780068908 A 20170908; EP 17848922 A 20170908; JP 2019513453 A 20170908; KR 20197009843 A 20170908