

Title (en)

METHOD AND APPARATUS FOR CHARACTERIZING A WAFER STRUCTURED BY AT LEAST ONE LITHOGRAPHY STEP

Title (de)

VERFAHREN UND VORRICHTUNG ZUR CHARAKTERISIERUNG EINES DURCH WENIGSTENS EINEN LITHOGRAPHIESCHRITT STRUKTURIERTEN WAFERS

Title (fr)

PROCÉDÉ ET DISPOSITIF POUR CARACTÉRISER UNE TRANCHE STRUCTURÉE PAR AU MOINS UNE ÉTAPE DE LITHOGRAPHIE

Publication

**EP 3371656 A1 20180912 (DE)**

Application

**EP 16794539 A 20161025**

Priority

- DE 102015221773 A 20151105
- EP 2016075640 W 20161025

Abstract (en)

[origin: WO2017076690A1] The invention relates to a method and an apparatus for characterizing a wafer structured by at least one lithography step. In the method according to the invention, at least one parameter which is characteristic for the structured wafer is ascertained on the basis of a plurality of measurements of the intensity of electromagnetic radiation after the diffraction thereof at the structured wafer, wherein these intensity measurements are carried out for at least two different orders of diffraction, wherein, for at least two regions on the wafer (150, 450, 550, 650, 750, 850, 950), in each case a value of the parameter assigned to the respective region is determined on the basis of a comparison of the measurement values obtained in the intensity measurements for the at least two orders of diffraction, and wherein the intensity measurements for determining the parameter are carried out simultaneously for the at least two regions on the wafer.

IPC 8 full level

**G01N 21/47** (2006.01); **G01N 21/95** (2006.01); **G03F 7/20** (2006.01)

CPC (source: EP US)

**G01B 11/02** (2013.01 - US); **G01B 11/272** (2013.01 - US); **G01N 21/8806** (2013.01 - US); **G01N 21/9501** (2013.01 - EP US); **G03F 7/705** (2013.01 - US); **G03F 7/70508** (2013.01 - US); **G03F 7/70625** (2013.01 - EP US); **G03F 7/70633** (2013.01 - EP US); **G01N 2021/8848** (2013.01 - US); **G01N 2201/0683** (2013.01 - US)

Citation (search report)

See references of WO 2017076690A1

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)

**WO 2017076690 A1 20170511**; DE 102015221773 A1 20170511; EP 3371656 A1 20180912; US 2018217509 A1 20180802

DOCDB simple family (application)

**EP 2016075640 W 20161025**; DE 102015221773 A 20151105; EP 16794539 A 20161025; US 201815937014 A 20180327