

Title (en)
LINE PROFILE ASYMMETRY MEASUREMENT

Title (de)
LINIENPROFIL-ASYMMETRIEMESSUNG

Title (fr)
MESURE D'ASYMETRIE DE PROFIL LINEAIRE

Publication
EP 1678466 A4 20080730 (EN)

Application
EP 04784089 A 20040913

Priority
• US 2004030115 W 20040913
• US 50244403 P 20030912

Abstract (en)
[origin: WO2005028992A2] This disclosure provides methods for measuring asymmetry of features, such as lines of a diffraction grating. On implementation provides a method of measuring asymmetries in microelectronic devices by directing light at an array of microelectronic features of a microelectronic device. The light illuminates a portion of the array that encompasses the entire length and width of a plurality of the microelectronic features. Light scattered back from the array is detected. One or more characteristics of the back-scattered light may be examined by examining data from complementary angles of reflection. This can be particularly useful for arrays of small periodic structures for which standard modeling techniques would be impractically complex or take inordinate time.

IPC 8 full level
G01B 11/02 (2006.01); **G01B 11/24** (2006.01); **G01B 11/30** (2006.01); **G01N 21/55** (2006.01); **G01N 21/88** (2006.01); **G01N 21/956** (2006.01); **G03F 7/20** (2006.01)

IPC 8 main group level
G01B (2006.01)

CPC (source: EP KR)
G01B 11/24 (2013.01 - EP); **G01B 11/306** (2013.01 - EP); **G01J 3/24** (2013.01 - KR); **G01J 3/42** (2013.01 - KR); **G03F 7/0625** (2013.01 - EP)

Citation (search report)
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• [X] US 2002135781 A1 20020926 - SINGH BHANWAR [US], et al
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• [A] WO 0250501 A1 20020627 - KLA TENCOR CORP [US]
• [X] RAYMOND C J ET AL: "Asymmetric line profile measurement using angular scatterometry", 2001, PROC SPIE INT SOC OPT ENG; PROCEEDINGS OF SPIE - THE INTERNATIONAL SOCIETY FOR OPTICAL ENGINEERING 2001, VOL. 4344, PAGE(S) 436 - 446, XP002483740
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• See references of WO 2005028992A2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
WO 2005028992 A2 20050331; **WO 2005028992 A3 20051013**; CN 1879004 A 20061213; EP 1678466 A2 20060712; EP 1678466 A4 20080730; JP 2007505322 A 20070308; KR 101071654 B1 20111011; KR 20060116797 A 20061115

DOCDB simple family (application)
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