

Title (en)

METHOD FOR IN-SITU MONITORING OF PATTERNED SUBSTRATE PROCESSING USING REFLECTOMETRY

Title (de)

VERFAHREN ZUR IN SITU BEARBEITUNGSÜBERWACHUNG EINES STRUKTURIERTEN SUBSTRATS UNTER ANWENDUNG VON REFLEKTOMETRIE

Title (fr)

PROCEDE DE CONTROLE IN SITU DU TRAITEMENT DE SUBSTRATS IMPRIMES, FAISANT APPEL A LA REFLECTOMETRIE

Publication

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Application

**EP 03785199 A 20030812**

Priority

- US 0325147 W 20030812
- US 40321302 P 20020813
- US 40861902 P 20020906
- US 28641002 A 20021101
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- US 40111803 A 20030327

Abstract (en)

[origin: WO2004015727A2] A method of controlling a recess etch process for a multilayered substrate having a trench therein and a column of material deposited in the trench includes determining a first dimension from a surface of the substrate to a reference point in the substrate by obtaining a measured net reflectance of at least a portion of the substrate including the trench, computing a modeled net reflectance of the portion of the substrate as a weighted incoherent sum of reflectances from n1 different regions constituting the portion of the substrate, determining a set of parameters that provides a close match between the measured net reflectance and the modeled net reflectance, and extracting the first dimension from the set of parameters; computing an endpoint of the process as a function of the first dimension and a desired recess depth measured from the reference point; and etching down from a surface of the column of material until the endpoint is reached.

IPC 1-7

**G01B 11/06**; **H01L 21/66**

IPC 8 full level

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