

Title (en)
METHOD AND APPARATUS FOR STAGE MIRROR MAPPING

Title (de)
VERFAHREN UND VORRICHTUNG ZUR BÜHNENSPIEGELABBILDUNG

Title (fr)
PROCEDE ET DISPOSITIF DE CARTOGRAPHIE DE MIROIR DE PLATINE

Publication
EP 1492994 A4 20100728 (EN)

Application
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Priority

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Abstract (en)

[origin: WO03087710A2] Interferometer systems are described that comprise optical assemblies to measure multiple degrees of freedom of a stage mirror and the topography of a reflecting surface of a stage mirror represented by datum lines and datum lines with corresponding local rotations of the reflecting surface of the stage mirror about the datum lines with high lateral spatial resolution. The interferometer systems measure slopes of datum lines and local rotations of the reflecting surface about the datum lines using single pass interferometric measurements of angular changes of directions of beams reflected by the reflecting surfaces. Two or more datum lines on a reflecting surface with concomitant measures of local rotations may be used to characterize topographic features, and these may be measured in situ in a lithography tool or measured off line either before installation or after removal from a lithography tool. Interferometer systems are also described that comprise optical assemblies to measure multiple degrees of freedom of two and three stage mirrors and the topography of reflecting surfaces of the stage mirrors. Scanning in only two orthogonal axes is required for determination of the topography of reflecting surfaces. The two and three stage mirrors are arranged such that they are typically orthogonal or plane parallel to other surfaces of the two and three stage mirrors although other angles may be present such as 45 degrees. The topography of reflecting surfaces may be measured for mirrors that are used in end use applications other than in lithography tools.

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Citation (search report)

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