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(54) Title (EN): IMAGE IMPROVEMENT FOR ALIGNMENT THROUGH INCOHERENT ILLUMINATION BLENDING

(54) Title (FR): AMÉLIORATION D'IMAGE POUR L'ALIGNEMENT PAR MÉLANGE D'ÉCLAIRAGES INCOHÉRENTS

(57) Abstract:

(EN): Methods and apparatuses are provided that determine an offset between actual feature/mark locations and the designed feature/mark locations in a maskless lithography system. For example, in one embodiment, a method is provided that includes opening a camera shutter in a maskless lithography system. Light is directed from a configuration of non-adjacent mirrors in a mirror array towards a first substrate layer. An image of the first substrate layer on a camera is captured and accumulated. Light is directed and images are captured repeatedly using different configurations of non-adjacent mirrors to cover an entire field-of-view (FOV) of the camera on the first substrate layer. Thereafter, the camera shutter is closed and the accumulated image is stored in memory.

(FR): L'invention concerne des procédés et des appareils qui déterminent un décalage entre des emplacements de caractéristiques/repères réels et les emplacements de caractéristiques/repères prédéfinis dans un système de lithographie sans masque. Par exemple, un mode de réalisation concerne un procédé qui comprend l'étape consistant à ouvrir l'obturateur d'une caméra dans un système de lithographie sans masque. Une lumière provenant d'une configuration de miroirs non adjacents d'un réseau de miroirs est dirigée sur une première couche de substrat. Une image de la première couche de substrat est capturée et accumulée sur une caméra. La lumière est dirigée et des images sont capturées de manière répétée à l'aide de différentes configurations de miroirs non adjacents afin de couvrir un champ de vision (FOV) complet de la caméra sur la première couche de substrat. L'obturateur de la caméra est ensuite refermé et l'image accumulée est enregistrée en mémoire.

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