

**Use of a Top Layer on a Mirror for use in a Lithographic Apparatus, Mirror for  
use in a Lithographic Apparatus, Lithographic Apparatus comprising such a  
Mirror and Device Manufacturing Method**

**Abstract**

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Use of a top layer (8) of a predetermined metal on a mirror for use in a lithographic apparatus, mirror for use in a lithographic apparatus and a lithographic apparatus with such a mirror or a mirror provided with a top layer with such a use. The apparatus has a source (SO) to provide radiation of a desired wavelength, e.g., EUV. The source (SO)  
10 generates a stream of undesired metal particles that are deposited to form smaller and larger nuclei on the mirror. The top layer (8) may interdiffuse in a predetermined temperature range with nuclei of the metal deposition. Thus, an additional layer (14) of an alloy of the metal particles and the metal of the top layer (8) is formed that has a higher reflectivity than a layer only comprising the metal particles would have.

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[Fig. 4c]