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(54) Title: EXTREME ULTRAVIOLET MASK BLANK HARD MASK MATERIALS

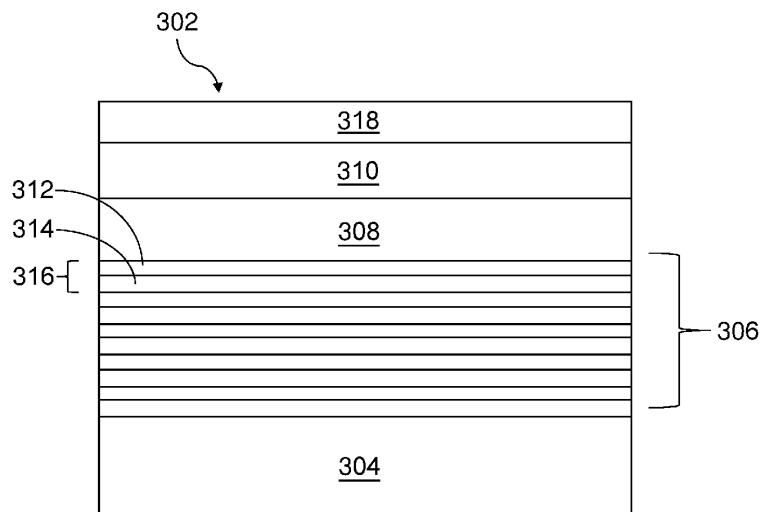


FIG. 4

(57) Abstract: Extreme ultraviolet (EUV) mask blanks, methods for their manufacture and production systems therefor are disclosed. The EUV mask blanks comprise a substrate; a multilayer stack of reflective layers on the substrate; a capping layer on the multilayer stack of reflecting layers; an absorber layer on the capping layer, the absorber layer comprising an antimony-containing material; and a hard mask layer on the absorber layer, the hard mask layer comprising a hard mask material selected from the group consisting of CrO, CrON, TaNi, TaRu and TaCu.

[Continued on next page]

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