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(54) **Title:** EXTREME ULTRAVIOLET MASK ABSORBER MATERIALS

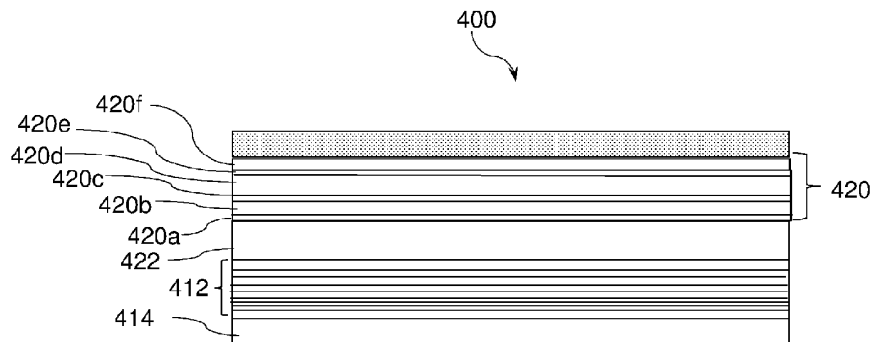


FIG. 5

(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, and an absorber on the capping layer. The absorber comprising a plurality of bilayers comprising a first layer of silicon and a second layer selected from the group consisting of TaSb, CSb, TaNi, TaCu, SbN, CrN, Cr, Ir, Pd, Re, Os, Cd, Co, Ag, Pt, oxides of TaSb, CSb, TaNi, TaCu, SbN, CrN, Cr, Ir, Pd, Re, Os, Cd, Co, Ag, Pt, and nitrides of TaSb, CSb, TaNi, TaCu, Cr, Ir, Pd, Re, Os, Cd, Co, Ag, and Pt.



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