

Abstract of the Disclosure

A mask for use with high energy radiation sources in precision projection processing by excimer lasers, for example, is described. The mask comprises a suitable substrate, such as silicon, upon which a multilayer dielectric stack is formed which acts as a reflective coating for the impinging excimer laser radiation, minimizing energy absorption by the mask substrate. The mask transparent areas are defined by the through-holes in the mask. The through-holes are formed with a conically undercut edge profile to define a thin object plane for the mask and minimize scattering of the radiation from the through-hole sidewalls. A method for fabricating the mask is also described.

