

SUBSTRATE WITH MULTILAYER REFLECTION FILM FOR EUV MASK BLANK, MANUFACTURING METHOD THEREOF, AND EUV MASK BLANK

ABSTRACT

5

A substrate with a multilayer reflection film for an EUV mask blank including a substrate, and a multilayer reflection film formed on the substrate is provided. The multilayer reflection film includes a Si/Mo laminated portion and a protection layer containing Ru and including a lower layer composed of Ru, and an upper layer composed
10 of a material containing Ru and at least one selected from the group consisting of metals other than Ru, and metalloids.

[Figure 1]