SUBSTRATE WITH FILM FOR REFLECTIVE MASK BLANK, REFLECTIVE MASK BLANK, AND METHOD FOR MANUFACTURING REFLECTIVE MASK

ABSTRACT

A substrate with a film for a reflective mask blank including a substrate, a multilayer reflection film and a back surface conductive film having a composition at the side in contact with the substrate and a different composition at the side remotest from the substrate is provided. The composition at the side in contact with the substrate contains silicon and nitrogen, as main components, and the different composition at the side remotest from the substrate contains tantalum, as a main component, and at least one element selected from the group consisting of silicon, germanium and aluminum.

[Figures 3A and 3B]