

ABSTRACT

Provided is a reflective mask blank whose surface on the back side where a conductive film is arranged is excellent in strength.

- 5 A reflective mask blank includes: a substrate; a conductive film arranged on one surface side of the substrate; a protection film arranged on a side of the conductive film opposite to the substrate; a multilayer reflective film to reflect EUV light, arranged on the other surface side of the substrate; and an absorber film arranged on a side of the multilayer reflective film opposite to the substrate, wherein the conductive film and the
- 10 protection film have different compositions, wherein the conductive film contains a first element selected from the group consisting of chromium and tantalum, wherein the protection film contains chromium and at least one second element selected from the group consisting of boron, carbon, nitrogen and oxygen, wherein the protection film has a thickness of 5 nm or more, and wherein, in X-ray photoelectron spectroscopy analysis
- 15 of the protection film, a peak corresponding to an $2p_{3/2}$ orbital of chromium appears at 576.7 eV or lower.