

ABSTRACT

Provided are a photomask blank capable of forming a nanofabrication resist pattern on a resist film with a high accuracy, a method for manufacturing a photomask, and a photomask manufactured by the method. A mask blank (100) according to the present embodiment is a mask blank used to manufacture a phase shift mask (200), to which exposure light having a wavelength of 200 nm or less is applied, and includes, in the following order, a translucent substrate (1), a phase shift film (2), and a light shielding film (3), and a hard mask film (4), in which the light shielding film (3) is formed of a material containing Cr, the hard mask film (4) includes a lower layer (41) positioned on a side of the light shielding film (3), and an upper layer (42) configuring an outermost layer of the hard mask film (4), the lower layer (41) contains at least one selected from Ta, Te, Ru, and a compound thereof, the upper layer (42) contains Ta or a Ta compound, and the compound contains at least one selected from O, N, and C.

FIG.1