

[ABSTRACT]

The purpose of the present invention is to provide a photomask blank and a photomask having favorable wafer transfer characteristics and irradiation resistance. A photomask blank (200) is for fabricating a photomask for an exposure wavelength of 193nm, the photomask blank (200) comprising: a light-transmissive substrate (103); a phase shift film (102) formed on the light-transmissive substrate (103) and providing phase shift effects of a light transmittance of at least 30% with respect to exposure light; and a light-shielding film (101) formed on the phase shift film (102). The phase shift film (102) is constituted by lamination of: a first phase shift film (102b) that uses a silicon nitride-based material, has a refractive index n_1 of 2.5 to 2.7, and an extinction coefficient k_1 of 0.2 to 0.4; and a second phase shift film (102a) that uses a silicon oxynitride-based material, has a refractive index n_2 of 1.55 to 2.20, and an extinction coefficient k_2 greater than 0 but no greater than 0.1.