

ABSTRACT

A reflective photomask blank (10) of a first aspect includes a substrate (1); a reflective layer (2) formed on the substrate (1); and a light absorbing layer (4) formed on the reflective layer (2). The light absorbing layer (4) includes a tin oxide film with an atomic ratio (O/Sn) of oxygen (O) to tin (Sn) being more than 1.50 and equal to or less than 2.0, and with a film thickness of 25 nm or more and 45 nm or less. Consequently, the shadowing effect of a reflective photomask for pattern transfer using extreme ultraviolet light as a light source is suppressed or reduced to improve the performance of transfer to a semiconductor substrate, and further, the cleaning resistance of the light absorbing layer is improved.

Figure 1