

ABSTRACT

PHOTOMASK BLANK, PHOTOMASK AND METHOD FOR PRODUCING THOSE

A metal film is provided as a light shielding layer (12) on one principle surface of a photomask substrate (11). The metal film cannot be substantially etched by chlorine-based dry etching containing oxygen ((Cl + O)-based dry etching) and can be etched by chlorine-based dry etching not containing oxygen (Cl-based dry etching) and fluorine-based dry etching (F-based dry etching). On the light shielding layer (12), a metal compound film as an antireflective layer (13). The metal compound film cannot be substantially etched by chlorine-based dry etching not containing oxygen (Cl based) and can be etched by at least one of chlorine-based dry etching containing oxygen ((Cl + O) based) and fluorine-based dry etching (F based).

Fig. 2