

MASK BLANKS AND PHOTOMASK

ABSTRACT

A mask blanks of the invention includes a blank mask layer. The blank mask layer includes a molybdenum compound layer that contains molybdenum, silicon, and
5 nitrogen and that selectively contains oxygen. In the molybdenum compound layer, a ratio of a peak area of a Si-Si bonding peak obtained by separation of a peak of a photoelectron spectrum of Si_{2p} to a peak area of the photoelectron spectrum of Si_{2p} measured by X-ray photoelectron spectroscopy is greater than or equal to 10.0%.
(fig. 1)