

Photomask Blank and Method for Producing Photomask

ABSTRACT

5 A photomask blank comprising a transparent substrate and a Cr-containing film is provided. The Cr-containing film includes a layer which is composed of a C-containing Cr compound and further contains O or O and N. The layer has a C/Cr atomic ratio of at least 0.3 and a N/Cr atomic ratio of up to 0.1, and has a Cr content of up to 50 at% and a C/O atomic ratio of at least 0.8, or a Cr content of up to 60 at% and a C/O atomic ratio of at least 1. The photomask blank is processed into a photomask by dry etching the Cr-
10 containing film.

[FIG. 1]