

ABSTRACT

This mask blank is provided with a light blocking film on a light transmitting substrate. The light blocking film has an optical density of 2.5 or more with respect to ArF excimer laser exposure light, and has a structure that comprises three or more multilayer structures, each of which is composed of a high nitride layer and a low nitride layer. The high nitride layer and the low nitride layer are formed from a material that is composed of silicon and nitrogen or a material that contains one or more elements selected from among semimetal elements and non-metal elements in addition to silicon and nitrogen. The high nitride layer has a nitrogen content of 50 atom% or more, and has a thickness of 10 nm or more. The low nitride layer has a nitrogen content of less than 50 atom%, and has a thickness that is not less than twice the thickness of the high nitride layer.