

ABSTRACT

METHOD OF MANUFACTURING MASK BLANK, METHOD OF MANUFACTURING TRANSFER MASK, AND METHOD OF MANUFACTURING SEMICONDUCTOR DEVICE

In an embodiment, a method of manufacturing a mask blank comprising a thin film for pattern formation on a substrate is provided. The comprises: a step of arranging a target containing one or more elements selected from silicon and metal in a vacuum chamber and forming a thin film by sputtering the target to an atmosphere including noble gas, wherein a shield is set around the target in the vacuum chamber, the shield being coupled to one or more support members, and wherein an amount of heat transferred Q from the shield through all of the support members is 100 W or more.

[FIG.6 to be printed with Abstract]