

TANTALUM SPUTTERING TARGET AND PRODUCTION METHOD THEREFOR

ABSTRACT

5 A tantalum sputtering target, wherein on a sputtering surface of the tantalum
sputtering target, an orientation rate of a (200) plane is 70% or less, an orientation
rate of a (222) plane is 10% or more, an average crystal grain size is 50 μm or more
and 150 μm or less, and a variation in a crystal grain size is 30 μm or less. By
controlling the crystal orientation of the target, it is possible to increase the sputter rate,
consequently deposit the required film thickness in a short period of time, and improve
10 the throughput. In addition, by controlling the crystal grain size on the sputtering
surface of the target, an effect is yielded in that the abnormal discharge during
sputtering can be suppressed.

Fig. 1