

COMPOSITE OXIDE TARGET AND MANUFACTURING METHOD THEREOF

ABSTRACT

Provided are a composite oxide target and its manufacturing method. The target includes MgO and TiO. A total atom number of MgO is 5 at% to 90 at%, and a total atom number of TiO is 10 at% to 95 at%. The average grain size of the black phases containing MgO is less than or equal to 2 μm and the variance thereof is less than 0.2. The method comprises: preparing MgO powders less than or equal to 5 μm and TiO powders less than or equal to 10 μm ; mixing the aforesaid powders to obtain a powdered mixture; grinding the powdered mixture for more than 48 hours to obtain a fine powdered mixture; preforming the fine powdered mixture into a green compact; and sintering the green compact at a temperature ranging from 900°C to 1400°C to obtain the composite oxide target.

FIG. 2A