

ABSTRACT

5 A substrate holding structure having excellent corrosion resistance
and airtightness, having excellent dimensional accuracy and having
sufficient durability when mechanical or thermal stress is applied thereto
is obtained. A holder (1) serving as the substrate holding structure
according to the present invention comprises a ceramic base (2) for holding
a substrate, a protective cylinder (7) joined to the ceramic base (2) and a
joining layer (8) positioned between the ceramic base (2) and the protective
10 cylinder (7) for joining the ceramic base (2) and the protective cylinder (7)
to each other. The joining layer (8) contains at least 2 mass % and not
more than 70 mass % of a rare earth oxide, at least 10 mass % and not more
than 78 mass % of aluminum oxide, and at least 2 mass % and not more
than 50 mass % of aluminum nitride. The rare earth oxide or the
15 aluminum oxide has the largest ratio among the aforementioned three
types of components in the joining layer (8).



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