

ABSTRACT

COPPER OR COPPER ALLOY REDUCED IN α -RAY EMISSION, AND
BONDING WIRE OBTAINED FROM THE COPPER OR COPPER ALLOY AS
RAW MATERIAL

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Copper or a copper alloy characterized in having an α -ray emission of 0.001 cph/cm² or less. Since recent semiconductor devices are produced to have higher density and higher capacity, there is greater risk of soft errors caused by the influence of α rays emitted from materials positioned near semiconductor chips.

10 In particular, there are strong demands for achieving higher purification of copper and copper alloys which are used near the semiconductor device, such as copper or copper alloy wiring lines, copper or copper alloy bonding wires, and soldering materials, and materials reduced in α -ray emission are also demanded. Thus, the present invention elucidates the phenomenon in which α rays are emitted from

15 copper or copper alloys, and provides copper or copper alloy reduced in α -ray emission which is adaptable to the demanded material, and a bonding wire in which such copper or copper alloy is used as its raw material.

20 Fig. 4