CLAIMS

1. A bonding sheet comprising:

a copper foil; and

sinterable bonding films formed on both faces of the copper foil,

wherein each of the bonding films contains copper particles and a solid reducing agent,

wherein the bonding films contain a liquid medium;

wherein the amount of the liquid medium in each of the bonding films is 9 parts by mass or less relative to 100 parts by mass of the copper particles; and

the bonding sheet is used such that at least one of the bonding films is bonded to a target object to be bonded, the target object having at least one metal selected from gold, silver, copper, and nickel on a surface thereof.

2. The bonding sheet according to claim 1,

wherein the bonding sheet is used so as to bond the target objects to the both faces of the bonding films, respectively.

3. The bonding sheet according to claim 1 or 2,

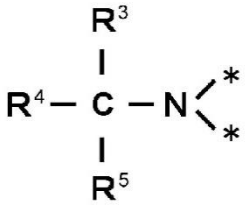
wherein the solid reducing agent is an amino alcohol compound.

4. A bonded structure comprising: a first bonded object having at least one metal selected from gold, silver, copper, and nickel on a surface thereof; a second bonded object having at least one metal selected from gold, silver, copper, and nickel on a surface thereof, and a bonding layer including a sintered structure of copper particles, the first bonded object and the second bonded object being electrically connected via the bonding layer, wherein the first bonded object and the second bonded object are electrically connected via a composite bonding layer including a copper foil and the bonding layers formed on both

faces of the copper foil; and

wherein a structure (3) below is formed in the bonding layer,

[Chem. 1]



(3)

where R^3 to R^5 each independently represent a hydrogen atom, a hydroxyl group, a hydrocarbon group having 1 to 10 carbon atoms, or a hydrocarbon group having 1 to 10 carbon atoms and a hydroxyl group, and * represents a linkage site to copper.

5. The bonded structure according to claim 4, further comprising a third bonded object interposed between the first bonded object and the second bonded object,

wherein electrical connection between the first bonded object and the third bonded object and electrical connection between the second bonded object and the third bonded object are each electrical connection via the bonding layer or via a composite bonding layer including a copper foil and the bonding layers formed on both faces of the copper foil, and

the third bonded object is a semiconductor element, or a substrate having at least one metal selected from gold, silver, copper, and nickel on a surface thereof.