

ABSTRACT

High strength and high elongation ratio of Au alloy bonding wire

[Abstract]

[Issues to be solved]

To acquire the best combination of elongation and break strength on the Au alloy bonding wire.

[Solution means]

Adding 0.5 – 30 mass % of at least one element among Cu, Ag, Pd and Pt to high purity Au, a flat area about elongation ratio change appears between the range of 450 – 650 °C of heat-treatment temperature at wire drawing. Though the wire strength becomes decrease at this range of temperature, the strength is maintained at higher level against the heat treatment temperature of a standard elongation ratio of 4 % of high purity Au alloy wire.

Therefore, by the heat treatment of this flat range, Au alloy bonding wire, which has certain level of strength regardless of the temperature change, is acquired. Moreover, by selecting appropriate temperature range, different strength characteristics wires corresponding to the elongation ratio are acquired.

[Representative Figure]

Fig. 1