

ABSTRACT

To provide a novel Cu bonding wire that achieves a favorable FAB shape and a favorable bondability of the 2nd bonded part, and further achieves favorable bond reliability even in a rigorous high-temperature environment. The bonding wire for semiconductor devices includes: a core material of Cu or Cu alloy; and a coating layer containing conductive metal other than Cu formed on a surface of the core material, wherein the coating layer has a region containing Ni as a main component on a core material side, and has a region containing Au and Ni on a wire surface side, in a thickness direction of the coating layer, a thickness of the coating layer is 10 nm or more and 130 nm or less, a ratio C_{Au}/C_{Ni} of a concentration C_{Au} (mass%) of Au to a concentration C_{Ni} (mass%) of Ni relative to the entire wire is 0.02 or more and 0.7 or less, a concentration of Au at the surface of the wire is 10 atomic% or more and 90 atomic% or less, and at least one of the following conditions (i) and (ii) is satisfied:

(i) a concentration of In relative to the entire wire is 1 ppm by mass or more and 100 ppm by mass or less

(ii) a concentration of Ag relative to the entire wire is 1 ppm by mass or more and 500 ppm by mass or less.

[No suitable figure]