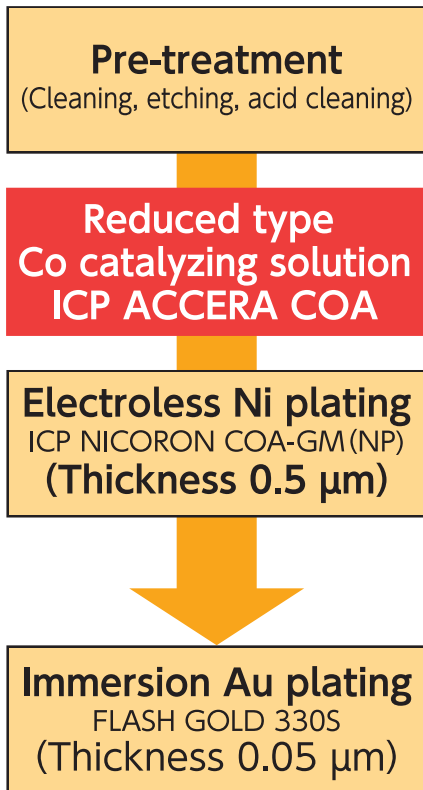


Small-thickness Ni-Au process by reduced-type Co catalysts

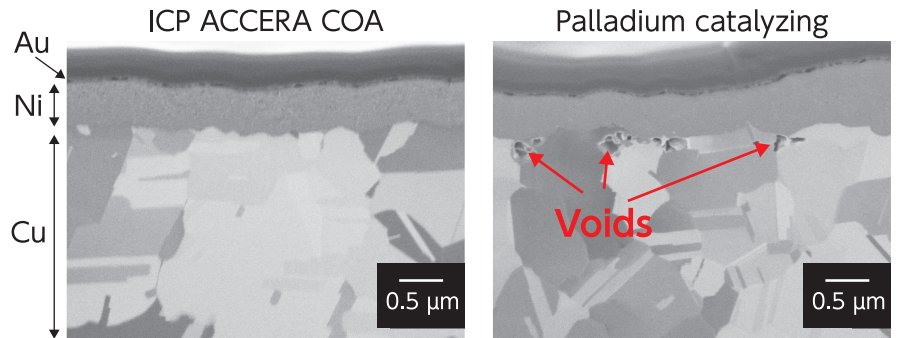
ICP-COA PROCESS

- Can reduce electroless nickel plating thickness (Conventional:3.0 μm \rightarrow ICP-COA PROCESS:0.5 μm)
- Utilize reduced-type cobalt catalyst to prevent copper corrosion
- Void-free, high covering performance can be obtained
- Great solder joint ability with small thickness

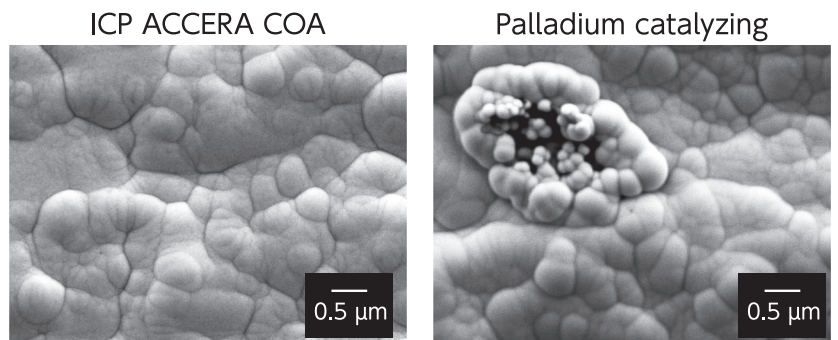
Process



Void-free, high covering power comes available

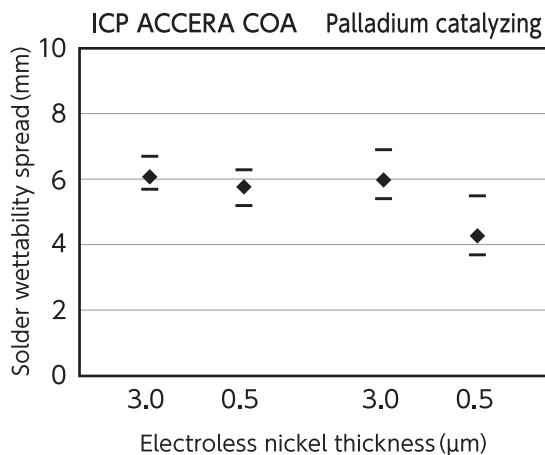


Cross section SIM image after electroless Ni/Au plating
Ni thickness:0.5 μm

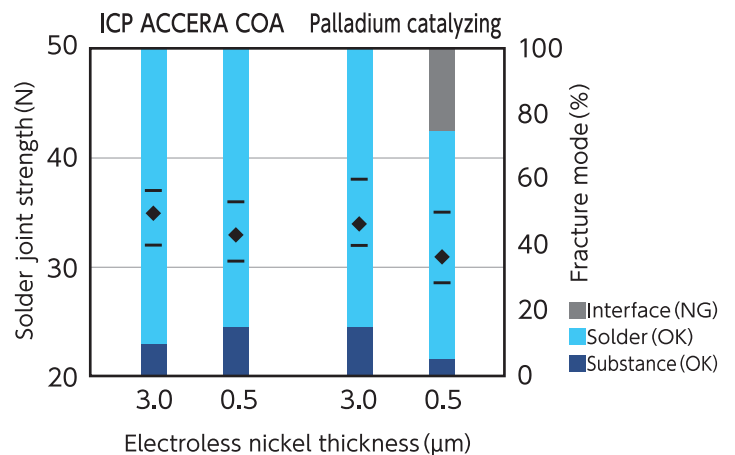


Surface SEM image after electroless Ni plating
Ni thickness:0.5 μm

Great solder joint performance



Solder wettability evaluation
Electroless Ni/Au (Thickness:3.0 or 0.5/0.05 μm)



Solder pull evaluation
Electroless Ni/Au (Thickness:3.0 or 0.5/0.05 μm)