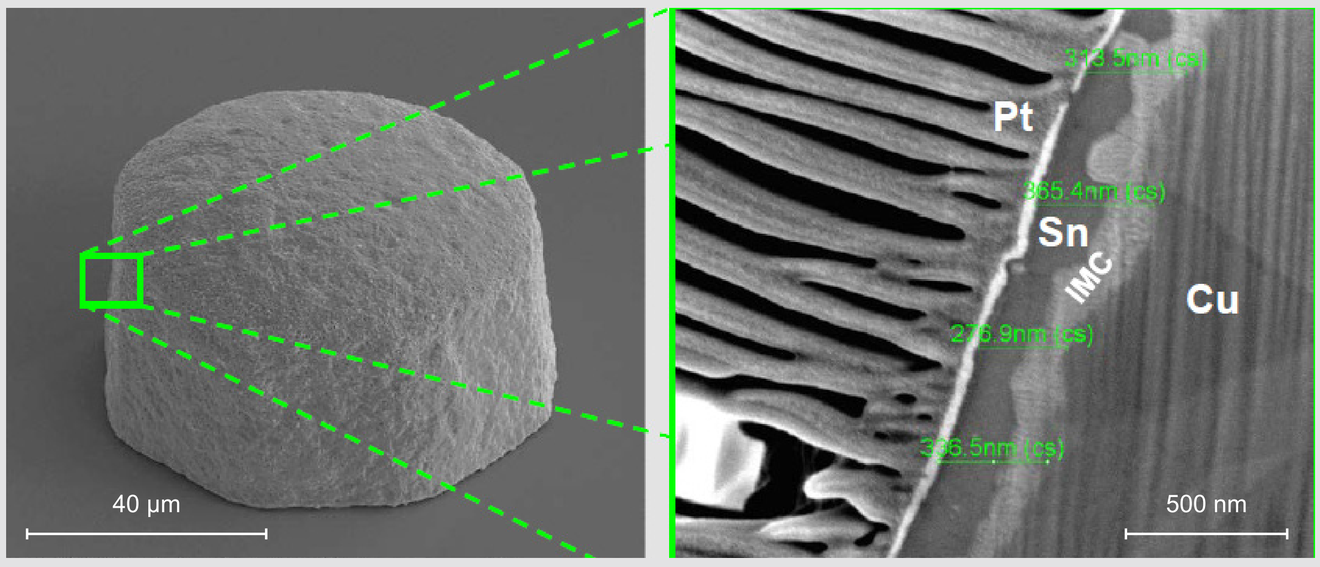
Stannolyte® B / ST

Electroless immersion tin plating for Semiconductor applications

300 nm Sn layer on the sidewall of a Cu pillar for enhanced adhesion to underfill material (right: FIB cut, incl. Pt overlayer for FIB)



Process features

Our Stannolyte® B and Stannolyte® ST processes allow the electroless deposition of tin on copper-based structures. Thus, it is the basis for the formation of reliable copper-tin solder joints. Additional applications include the use of Stannolyte® ST to prevent copper oxidation as it is used for the deposition of thinner Sn layers. Stannolyte® B allows the deposition of thick tin layers. For all electroless processes, surface treatment before and after deposition is crucial. For these, we offer the suitable products. The fully automated analyzing tool adjusts all critical bath parameters and allows convenient replenishment of the process.

Features and benefits

Stannolyte® ST

- Whisker free Sn layer
- Low temperature process
- Layer thickness up to 400 nm Sn
- Deposition rate of 30 – 50 nm/min
- Improved adhesion promotion between Cu and organic material

Stannolyte® B

- Whisker free Sn layer
- Mild temperature process
- Layer thickness up to 1.8 µm
- Deposition rate of 50 – 80 nm/min
- Pure tin for solder applications

Pre-treatment

Stannolyte® ST or Stannolyte® B

Post-treatment