

トップシルベ ACC / トップシルベ AG

TOP SILVE ACC / TOP SILVE AG

無電解銀めっき

Electroless Ag plating

トップシルベ ACC

TOP SILVE ACC

前処理 Pre-treatment	脱脂・エッチング・酸洗 Cleaning, etching, acid cleaning
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無電解銀めっき Electroless Ag plating	トップシルベ ACC TOP SILVE ACC
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銅素材上に**直接**無電解銀めっきが可能
Realize **direct** electroless silver plating on copper substrate

無電解ニッケル / 銀めっき

Electroless Ni/Ag plating

トップシルベ AG

TOP SILVE AG

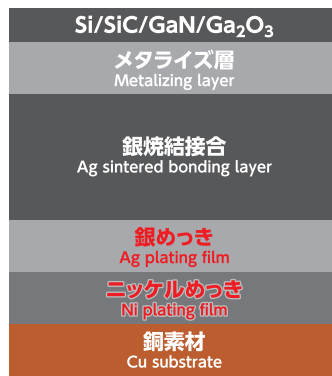
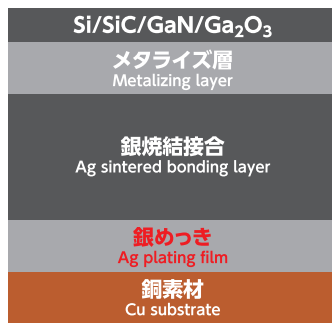
前処理 Pre-treatment	脱脂・エッチング・酸洗・プリディップ・ Pd 触媒・ポストディップ Cleaning, etching, acid cleaning, pre-dipping, Pd catalyzing, post dipping
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無電解ニッケルめっき Electroless Ni plating	ICP ニコロン SOF(NP) ICP NICORON SOF(NP)
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無電解銀めっき Electroless Ag plating	トップシルベ AG TOP SILVE AG
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ナノ銀焼結接合用途

Application: Nano-silver sintering bonding



金代替用途

As the replacement of gold plating

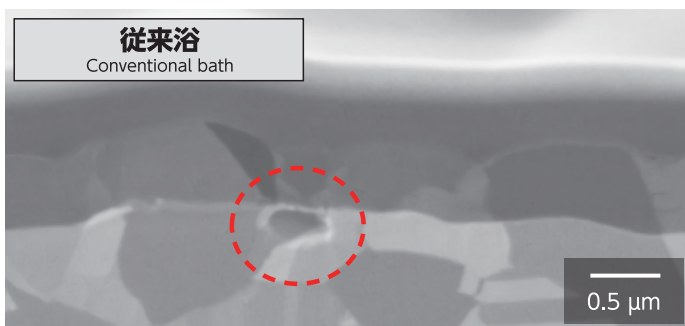
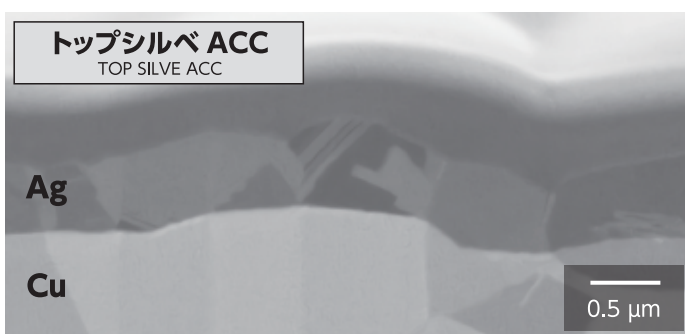
無電解 Ni / Au めっき
Electroless Ni/Au plating

無電解 Ni / Ag めっき
Electroless Ni/Ag plating



下地銅素材の腐食を抑制

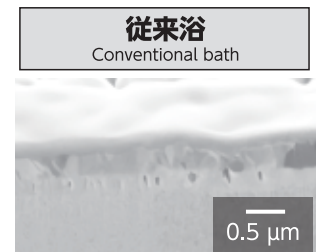
Can reduce corrosion on base copper substrate



無電解銀めっき後の断面 SIM 像
SIM image of cross section (after electroless silver plating)

下地ニッケル皮膜の腐食を抑制

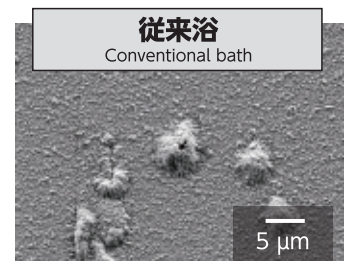
Can reduce corrosion on base nickel film



無電解ニッケル / 銀めっき後の断面 SIM 像
SIM image of cross section (after electroless nickel/silver plating)

平滑な銀めっき皮膜

Can obtain smoothness of silver plating film



無電解銀めっき後の表面 SEM 像
SEM image of surface (after electroless silver plating)