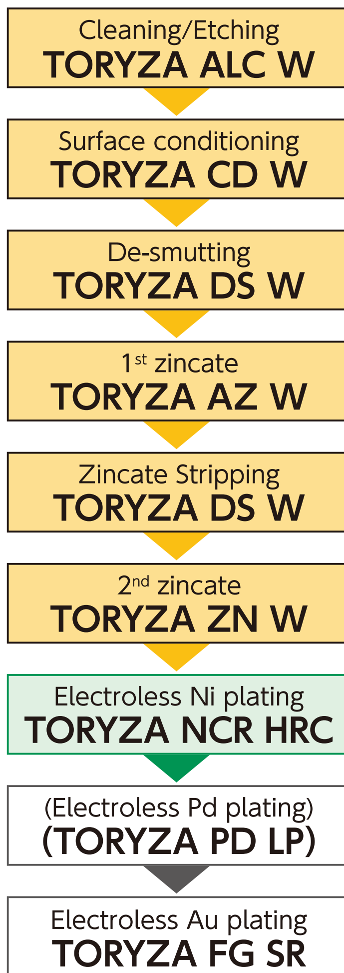
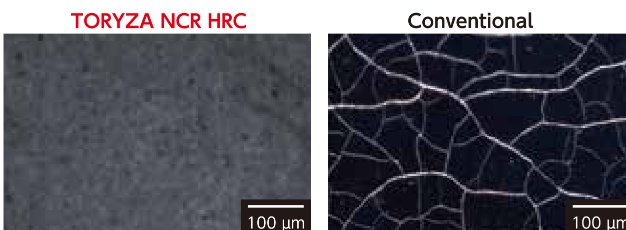
UBM formation on aluminum electrodes on wafer

TORYZA EL PROCESS



TORYZA NCR HRC

For high temperature jointing



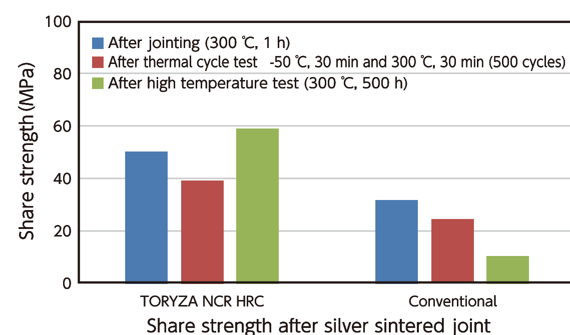
Indentation test by Erichsen tester (Ni thickness 3 µm, indentation width : 0.5 mm)

Prevent cracks after 400 ℃ heat treatment

For high temperature use

Crack occurrence comparison of electroless Ni plating film

Electroless Ni plating film	Crack occurrence		
	After heat treatment	After thermal cycle	After high temperature test
TORYZA NCR HRC	No	No	No
Conventional	No	Occur	Occur



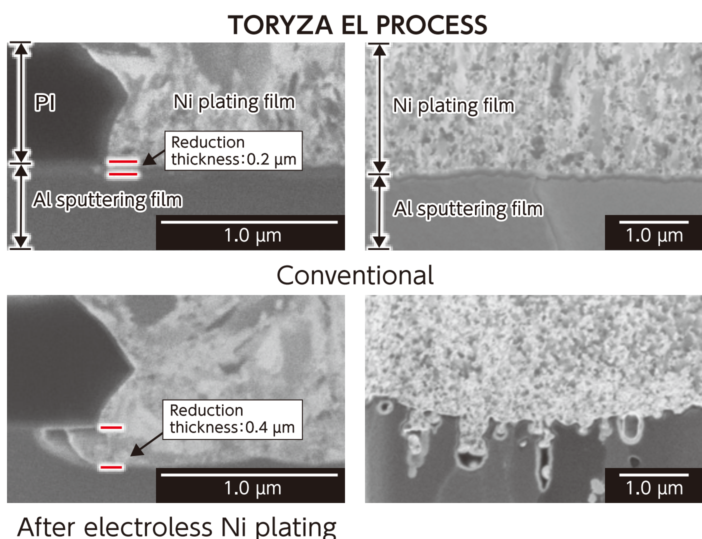
Share strength after silver sintered joint

Presented by SANKEN, Osaka University Flexible 3D JISSO Collaborative Research Institute

SiC Chip: Ti sputtering on SiC chip, and form Ag sputtering layer
Jointing condition : Electroless Ni plating (7 µm thickness) on DBA substrate and sintering SiC chip on DBA substrate with Ag paste (Sintering condition: 1 MPa, 300 ℃, 1 h)

TORYZA EL PROCESS

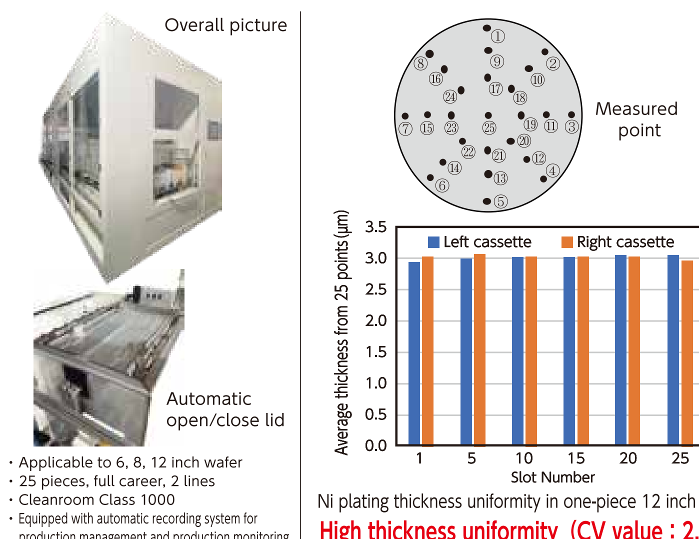
Reduce etching amount and local corrosion of Al sputtering film



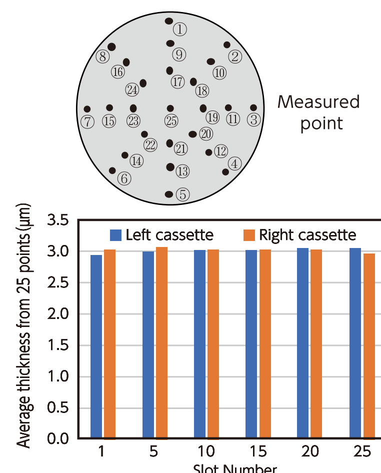
After electroless Ni plating

TORYZA EL SYSTEM

Automatic electroless plating equipment Applicable to 12 inch wafer



- Applicable to 6, 8, 12 inch wafer
- 25 pieces, full career, 2 lines
- Cleanroom Class 1000
- Equipped with automatic recording system for production management and production monitoring



Ni plating thickness uniformity in one-piece 12 inch wafer

High thickness uniformity (CV value : 2.0 %)

OKUNO CHEMICAL INDUSTRIES CO., LTD.

URL https://www.okuno.co.jp/

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