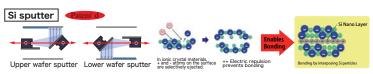
WOW COW Hybrid Bonding

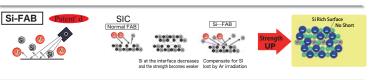
WOW

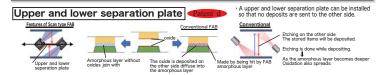
①Room temperature direct bonding in ultra high vacuum

Machine configuration and bonding process



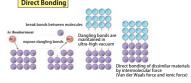






Cu-Cu Hybrid Bonding





$\pm 0.2 \mu m$

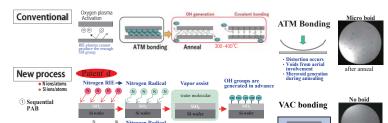
WF-3000

Ar Bombardment in UHV

- · Line type Beam source
- · Si sputter
- Si-FAB Ar beam containing Si atoms
- 300mm Wafer CTC Auto handling
- · 6min/wafer



2 Hydrophilic bonding in Vacuum







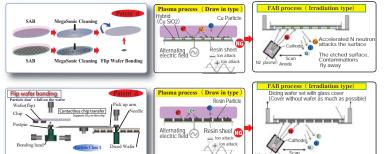
- **Sequential PAB**
- Si-FAB
- · Particle cleaning
- 300mm Wafer CTC Auto handling
- 15~20 WPH



3 Surface activated Bonding COW for Semiconductor front end

COW





Logic, Memory, CIS

±0.2μm



- Alignment accuracy ± 0.2um
- **FAB** activation treatment
- Particle cleaning (Mega sonic)
- 300mm wafer CTC automatic handling



High Accuracy Alignment System



