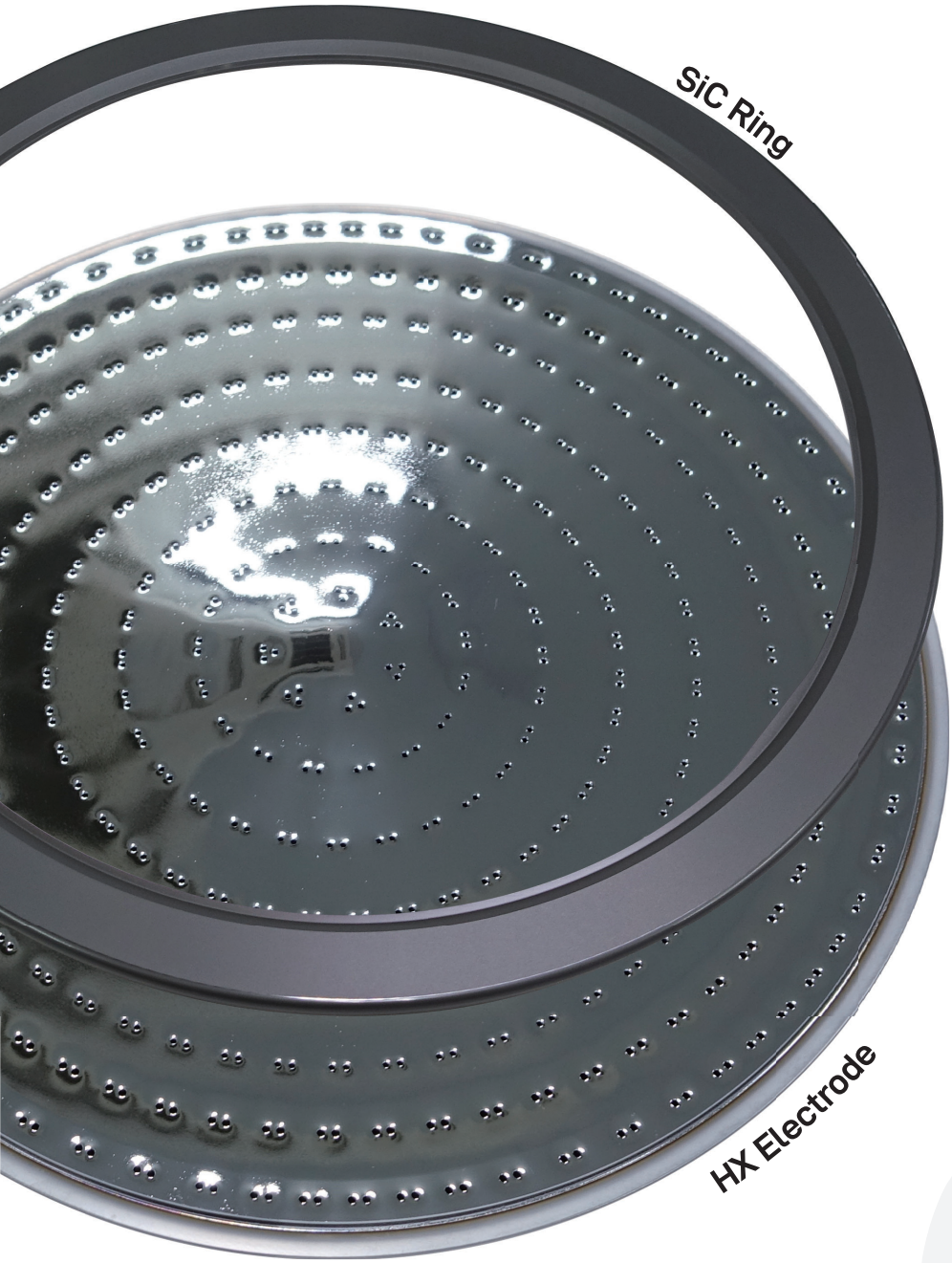
CINOS CLEANING TECHNOLOGY

Particle Oxide Combination

POC™



Oxidation

Base Material

Changeless

Selective

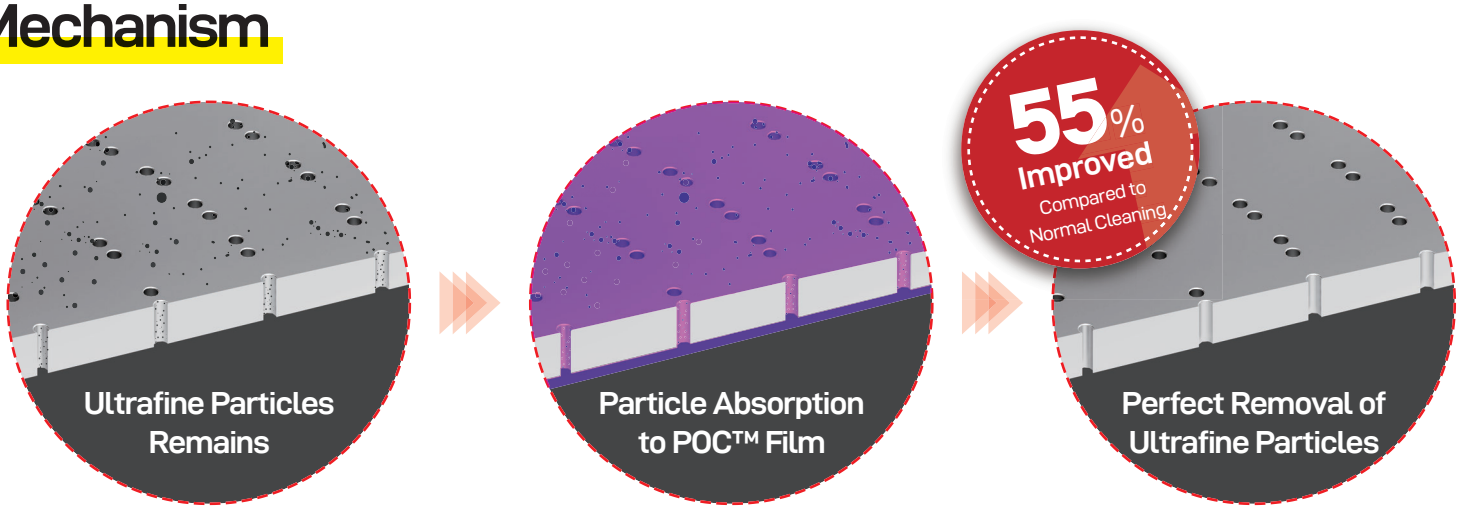
CINOS

About

As technology for cleaning parts in general semiconductor processes, physical and chemical cleaning methods are applied, but conventional cleaning removes process by-products and at the same time causes problems such as etching and deformation of the substrate which shortens the lifetime of the part and reduces the yield. In addition, in the case of ultrafine particles, effective removal is difficult due to surface tension, etc.

POC™ combines process by-products and ultrafine particles with an oxide film grown through oxidation to separate them from the substrate, and then selectively removes the grown oxide film. The cleaning effect is improved by 55% compared to conventional cleaning and does not affect the substrate.

Mechanism



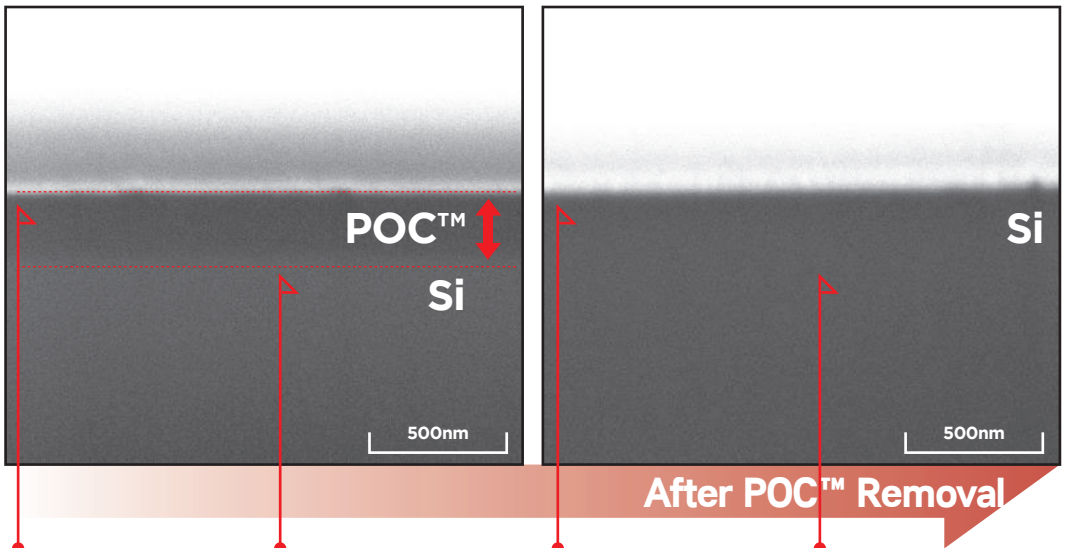
Chemical Dipping → Ultrafine particles cannot be removed

Oxide film growth by POC™

POC™ Strip & Anti-Reabsorption Chemical Application

Merit

POC™ can selectively remove the contamination without damaging the substrate by applying POC™ film to the ultrafine particles remaining on the substrate.



Element	Wt%	Element	Wt%	Element	Wt%	Element	Wt%
C	12.01	C	4.41	C	16.59	C	4.40
O	5.56	O	0.11	O	-	O	0.15
Si	82.43	Si	95.48	Si	83.41	Si	95.45

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