



Press Release

2006/11/15

Accretech Begins Sales of Industry First Wafer Edge Cleaning System “Habanero™”

Tokyo Seimitsu Co., Ltd (President, C.E.O. & C.O.O Sadakatsu Suzuki) announces the sales launch of its award winning wafer edge cleaner “Habanero™”. “Habanero™” won the 2006 SEMI “Technology Innovation Showcase Award” and was chosen as “The Best Solution To A Problem” at Semicon West 2006.

“Habanero™” groundbreaking technology improves device yields by removing films from 300mm wafer edge and bevel regions before these films delaminate. “Habanero™” FACE™ (Flame Assisted Chemical Etch) technology generates high temperature reactive gas at atmospheric pressure that chemically removes undesirable wafer edge films with surgical precision.

“Habanero™” Benefits

1. Increases yields

Recent studies show yield increases up to 10% when the edge of the wafer is kept free of delaminating films.

2. Industry Lowest Cost of Consumables

“Habanero™”’s CoC of <\$0.03 per wafer is one third less than the competition.

3. High throughput, small footprint

“Habanero™” has a dual chamber throughput of >100 wafer per hour (300mm) and a dual chamber footprint of 5.2m².

4. Process versatility

“Habanero™”’s FACE technology processes a wide variety of films such as: barrier metals, tungsten, dielectrics, BARC, amorphous carbon, and ILD etch polymer, and others.

5. Surgically precise removal process

An industry best Wafer Edge Exclusion annular uniformity of +/- 100um, provides more edge area available for IC’s.

6. Completely dry process

“Habanero™”s removal process does not require expensive wet chemical storage/disposal.

7. No charging effects on wafer

Conventional plasma processes use the wafer as part of the circuit that creates reactive chemistry employed in film removal. This can cause circuit damage especially when plasma processing is confined to the edge of the wafer.

8. Rapid process development through metrology feedback

“Habanero™”s integrated wafer edge inspection system provides quick and detailed pre & post process analysis of the edge of the wafer.

9. Enables enhanced process windows

“Habanero™” can quickly remove polymer build up on the wafer edge enabling process engineers to have tighter CD control during ILD etch. ILD etch is an important step in the dual damascene process.

Summary

Contamination resulting from delaminating films and unwanted polymers on the wafer edge and bevel regions represents a major source of yield limiting defects for near edge ICs. Yield loss from this class of defects has drastically increased as critical dimensions scale below 90 nm. Therefore, in order for IC manufactures to maximize the benefit from migration to 300mm wafers, contamination of the near edge region originating from the wafer’s edge must be eliminated.

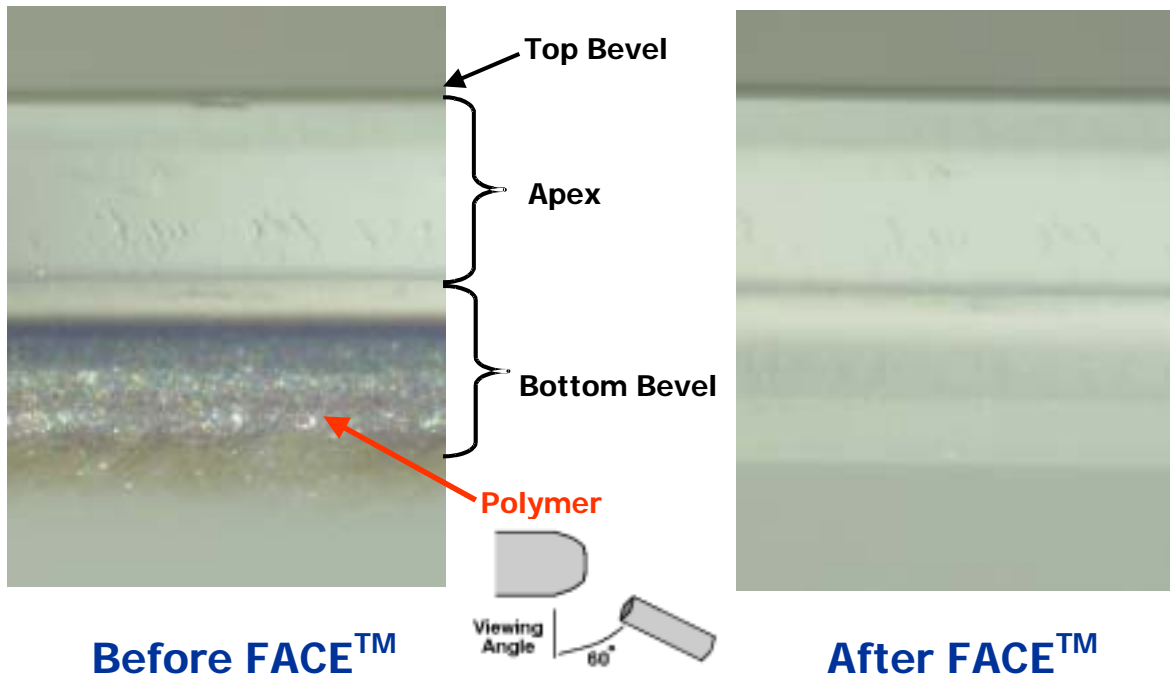
“Habanero™” edge cleaning technology requires no expensive wet chemistries or solvents, no ion assisted processes that can induce charge damage, and no abrasive pads, brushes or tapes that require wafer masking and post-process cleaning.

With its high throughput, low cost of consumables, and process versatility, “Habanero™” provides cost effective solutions to the problems effecting yield for IC manufactures.



Wafer Edge Cleaning System “Habanero™”

Images from ACCRETECH's Integrated Wafer Edge Inspection System



Before FACE™

After FACE™