

Wet Cleans Today – *Eco Process*

OEM Group CINTILLIO batch wafer process system has delivered profits and performance to numerous fabs around the world, with unmatched process performance.

The *Eco-Strip* applies OEM Group patented Hydrozone and Hydrozone+ processes, whereby DI water (at elevated or ambient temperature) is combined with gaseous ozone on the wafer surface to yield a clean, high performance process.

The *Eco-Strip* has the capability to deliver H₂O and O₃, known as the Hydrozone process, or HZ, as well as H₂O, O₃ and ultra-dilute NH₄OH, known as the Hydrozone+, or HZ+. The HZ+ process can enhance strip-rates, improve particle performance, and remove ARC layers.

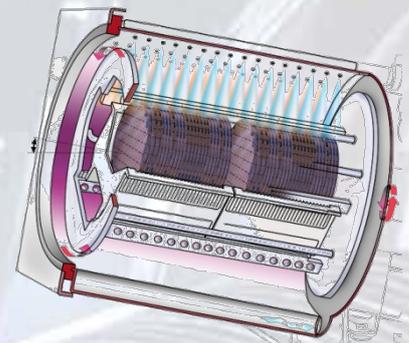
The *Eco-Strip*, with its small footprint, 50-wafer load and integral O₃ generator, has the most space efficient form-factor of any batch tool, spray or immersion, in the industry today.

Extending Cleaning Capabilities

Eco also provides the platform for the OEM Group *Eco-Clean*. *Eco-Clean* extends the cleaning capabilities of the HZ and HZ+ process suite by adding ultra-dilute HF and ultra-dilute HCL to the available options. The *Eco-Clean* is equipped with a Teflon process chamber and rotor instead of the stainless steel rotor/chamber used for HZ and HZ+



Size matters. The *Eco* tool's global popularity can be attributed to its compact footprint and 50-wafer payload.



Extending capabilities. The *Eco-Clean* solid Teflon rotor is clean, inert and stable – the perfect combination for FEOL cleans.

BEOL

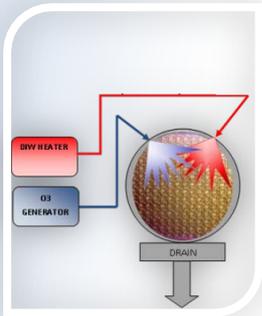
FEOL

proven technology for a new world

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The Eco Advantage

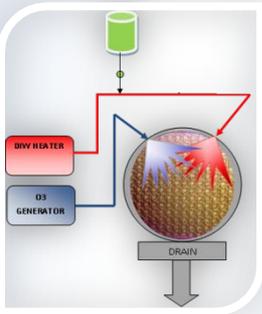
Volume 1 Issue 7



HydroOzone

Process Suite

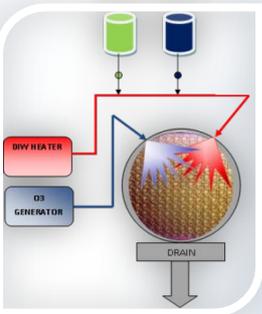
The *Eco* platform delivers OEM's family of Patented Ozone processes. The family incorporates precision-delivered dilute media with gas phase O₃. It is a high performance group of production proven methods that deliver both low CoO and superior process results.



Hydrozone+

Compelling Economics

The economics of *Eco* are as compelling as the process performance. The use of highly dilute media coupled with O₃ provides an effective, low-cost clean. When compared to a standard Piranha resist strip or a standard RCA clean the economic benefits become obvious.

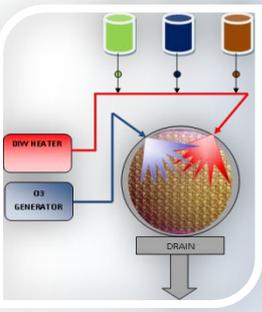


FluorOzone

Award Winning Process

The process was awarded the *SUSTAINABLE TECHNOLOGIES* award at SEMI-West.

- Elimination of thousands of gallons of Sulphuric and Peroxide
- Reducing DIW consumption by 84%
- Increasing cycle time
- Reduced Defects
- Increased Yield



FluorOzone+

Eco is the Answer

Whether the challenge is yield enhancement, cost reduction, environmental impact reduction or manufacturing capability enhancement, *Eco* provides the answer.

The processes are protected by US patents:
6273108 | 6267125 | 6591845 | 6601594

HydroOzone™ → gO₃ + H₂O

Photoresist stripping and organic clean

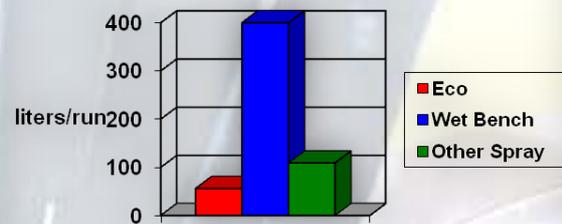
HydroOzone+ → gO₃ + H₂O + NH₄OH

Enhanced photoresist strip, post etch residue cleans and ARC layer removal

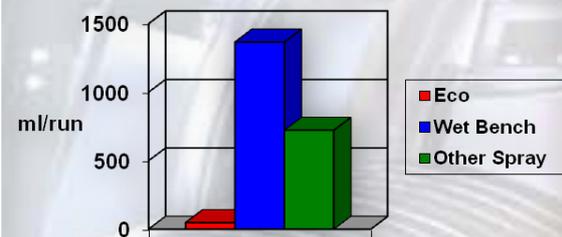
FluorOzone™ → gO₃ + H₂O + HF

Post-etch, pre-deposition, pre-gate, and pre-diffusion cleans
Excellent Particle, Organic and Metals Removal

Eco answers the questions. One platform that will deliver multiple, production proven, answers.



Minimal DIW Consumption



Minimal Chemical Usage

proven technology for a new world

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