AutoEtch 690

The AutoEtch 690 has been designed specifically for etching of Aluminium and Al Cu alloys up to 2%.
The cathode coupled design enhances ion bombardment with a focus ring to confine the plasma .
All components in contact with plasma are temperature controlled this minimises polymer and Al Cl build up.
Etch passivation is accomplished in the powered loadlock where independent control of process parameters allows the user to replace chlorine compound on the wafers with fluorine compounds to prevent corrosion.

Applications

- **Aluminum etch**
- **Al/Cu alloy etch**

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Typical Results

AlSi (Ti)

$CL_2/BCl_3/N_2/CHCl_3$

- ♦ Al Etch rate 9000-12000A/min
- ♦ Uniformity +/- 7% 1σ
- ♦ Al to oxide selectivity >10:1
- ♦ Al to resist selectivity >3:1

Typical Results

AlSi (Cu1%)

$CL_2/BCl_3/N_2/CHCl_3$

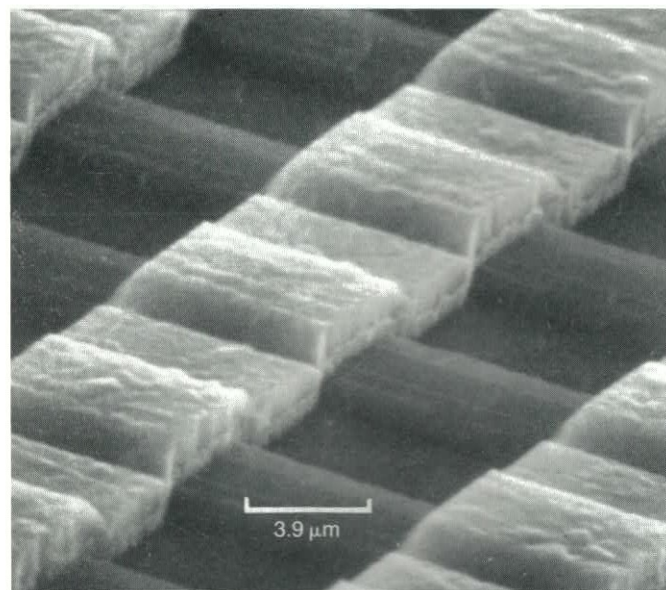
- ♦ Al Etch rate 8000-10000A/min
- ♦ Uniformity +/- 7% 1σ
- ♦ Al to oxide selectivity >10:1
- ♦ Al to resist selectivity >2.5 :1

Typical Results

AlSi (Cu2%)

$CL_2/BCl_3/N_2/CHCl_3$

- ♦ Al Etch rate 6000-10000A/min
- ♦ Uniformity +/- 7% 1σ
- ♦ Al to oxide selectivity >5:1
- ♦ Al to resist selectivity >1.5 :1



Etched alloy lines, Al-1 %Si-1% Cu are uniformly etched over topography. No residues remain from the etch process.

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