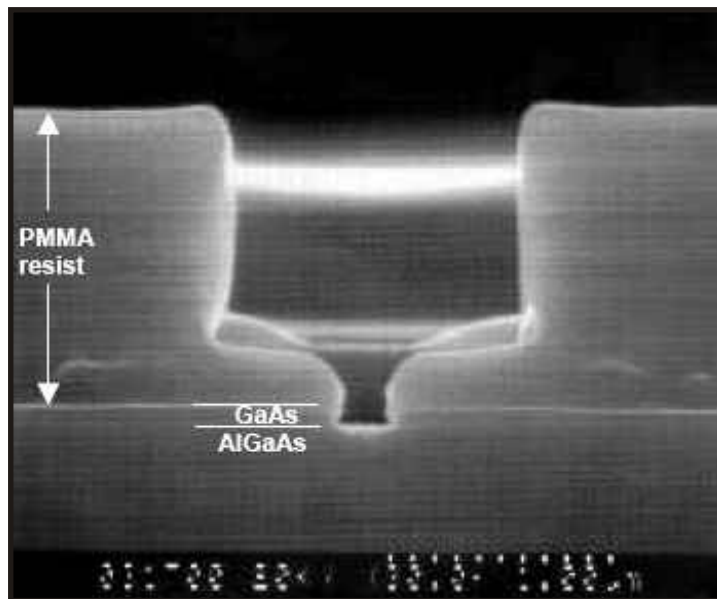


Plasmalab Data

Low Damage GaAs gate recess ICP Etching

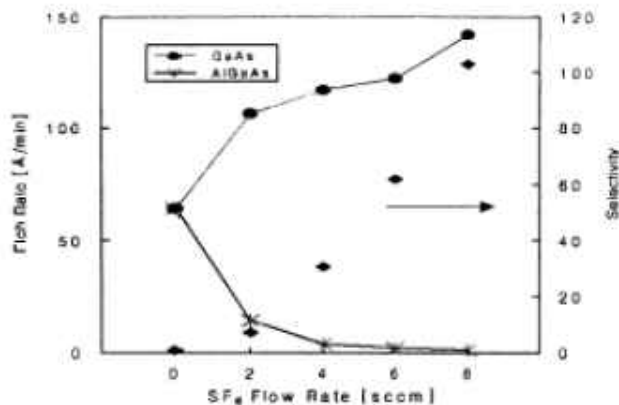


Plasmalab 80 Plus
Plasmalab System 100
Plasmalab System 133

50nm GaAs layer etched selectively over AlGaAs active layer

Technology:

- BCl₃/SF₆ based process for selective etching to aluminium containing layers
- ICP technology provides maximum control over selectivity
- Two step process to enhance selectivity
- Very high selectivity to AlGaAs and AlAs layers
- Controllable isotropic or anisotropic etch
- BCl₃/SF₆ chemistry



Results:

- DC Bias < -30 volts
- Low Damage, low noise
- Etch rates
 - GaAs > 100 nm/min.
 - AlGaAs < 1 nm/min, AlAs ~0.2 nm/min
 - PR < 10 nm/min.
- Selectivities
 - GaAs:AlGaAs > 100:1
 - GaAs:AlAs > 500:1
 - GaAs:PR > 10:1

AlGaAs : and selectivity vs SF6 flow

