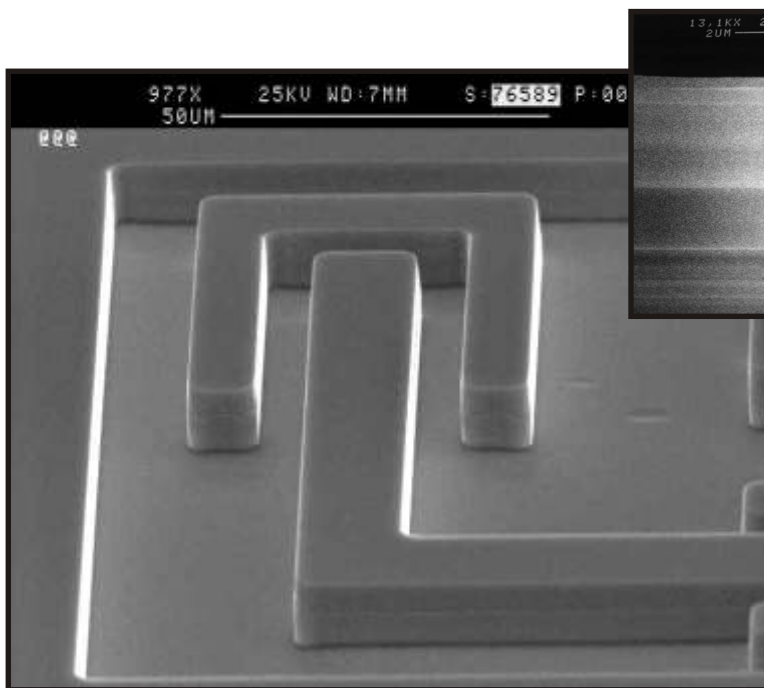
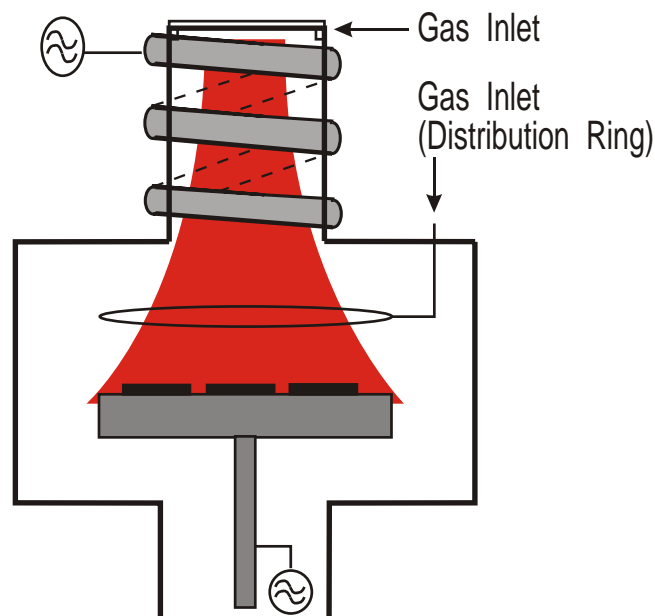


Plasmalab Data

InP ICP Etching



The SEM's of the OPT application lab in Yatton, UK, show a 10 µm and a 1.7 µm deep etch.



Plasmalab 80 Plus

Plasmalab System 100

Plasmalab System 133



Technology:

- Reactive Ion Etching with ICP Source (2 or 13 MHz)
- Inductive Coupled Plasma
- Cl (a) or CH₄/ H₂(b) based process
- RF driven substrate electrode

Results:

- Rate : (a) 0.5 - 1 µm/ min
(b) 200 nm/min
- Selectivity to SiO₂ mask 10- 25 : 1
(10:1 to Photoresist (b))
- good uniformity
- smooth walls

ICP Sources

- ICP65 for pieces and small wafers
- ICP180 for 4" - 5" wafers
- ICP380 for up to 8" wafers

ICP Source Design: ESS

All OPT ICP and RF sources are designed with an "electrostatic shield" (ESS) to ensure a purely inductive plasma coupling without a capacitive component. Therefore contamination by "wall sputtering" and ion induced substrate damage is excluded.

Source to Substrate distance

This distance can be varied over a wide range for optimal process control.