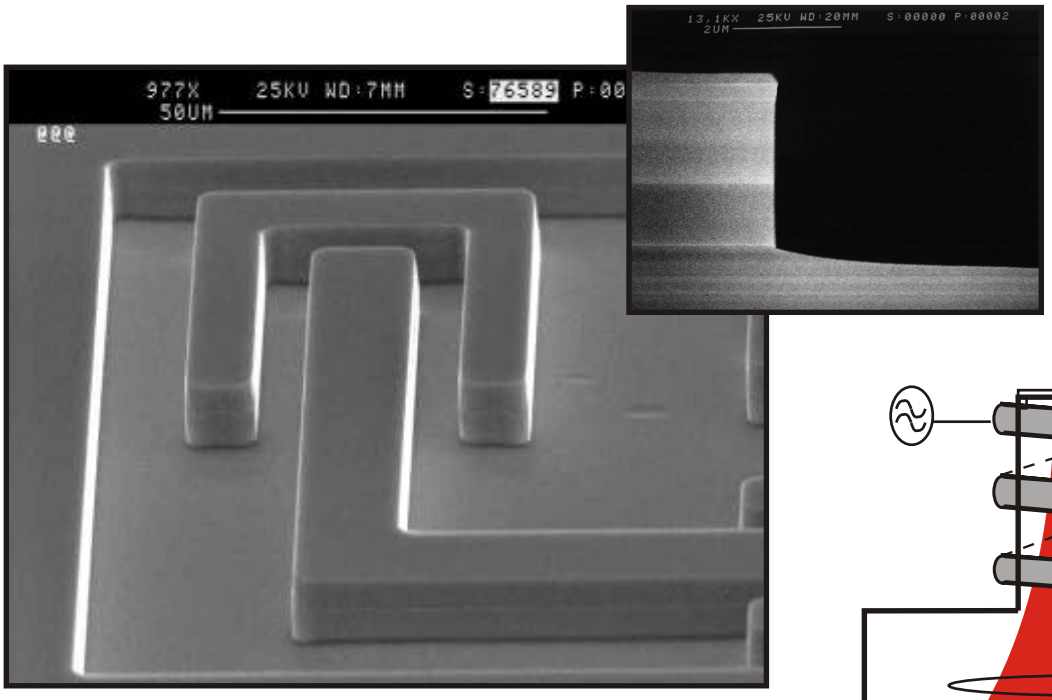
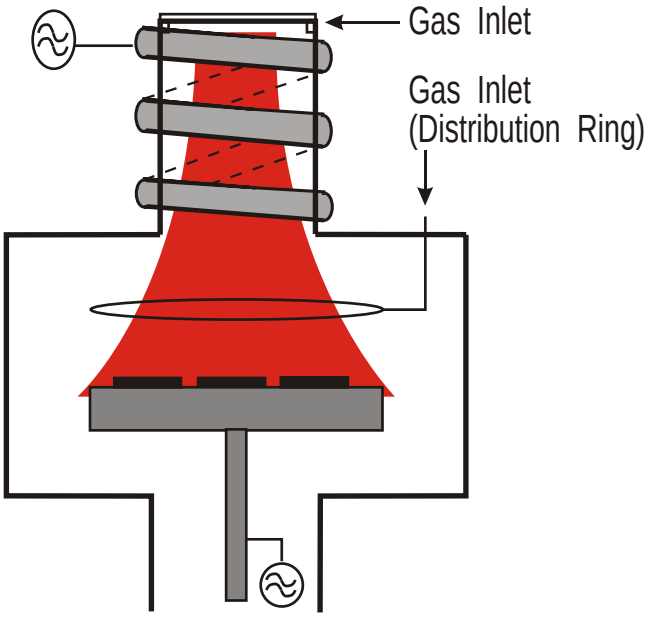
email: plasma@oxford.de

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 CH_4/ H_2(b) based process
RF driven substrate electrode

Results:

Rate : (a) 0.5 - 1 µm/ min
(b) 200 nm/min
Selectivity to SiO_2m ask 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.