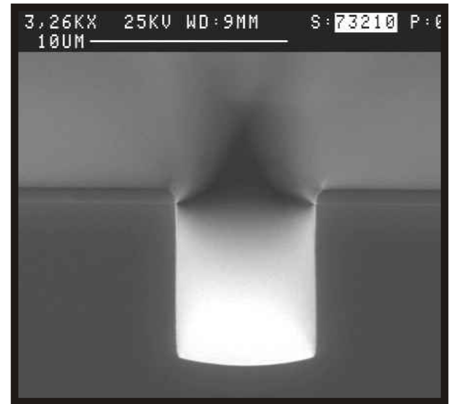
© Oxford Instruments plc
July 2004
email: plasma@oxford.de

Plasmalab Data

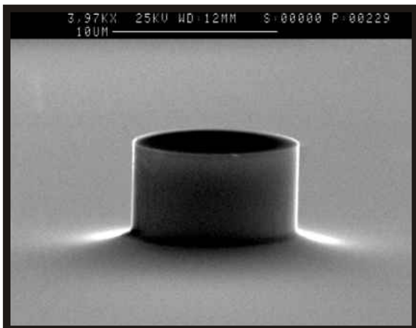
InP/ InGaAsP Laser Facet ICP Etching

Chlorine based process: Cl_2, CH_4, H_2, Ar
rate > 1.5 µ/ min
selectivity > 15:1 to SiO_2 or SiN_x mask
uniformity < +/- 4 % (50 mm diameter)
excellent profile control



OPT application lab :
10 µm deep etch in InP/InGaAsP/InP

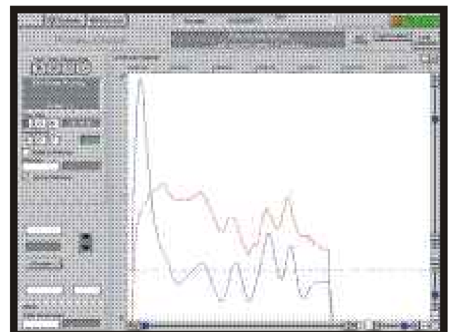
Plasmalab 80 Plus
Plasmalab System 100
Plasmalab System 133



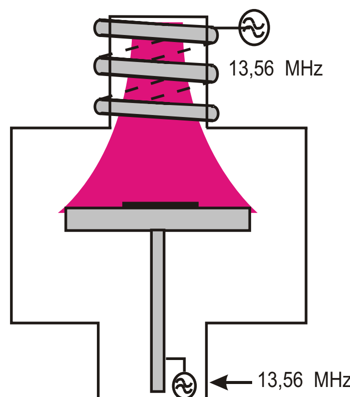
OPT application lab : 8 µm deep HBr based InP etch with PR mask

HBr based process
rate > 0.85 µ/ min
selectivity > 10:1 to SiO2 mask
selectivity to PR mask > 10 : 1
uniformity < +/- 4 % (50 mm diameter)
good profile control

OPT application lab :
trace from complex multi-layer of InP related materials by laser interferometry



Technology:
Reactive Ion Etching
with ICP Source (13 MHz)
Inductive Coupled Plasma
RF driven substrate electrode



OPT application lab :
6 µm deep etch in InP/InGaAsP

Chlorine based process: Cl_2, N_2
rate > 1 µ/ min
selectivity > 10:1 to SiO_2 or SiN_x mask
uniformity < +/- 4 % (50 mm diameter)
excellent profile control