OXFORD INSTRUMENTS

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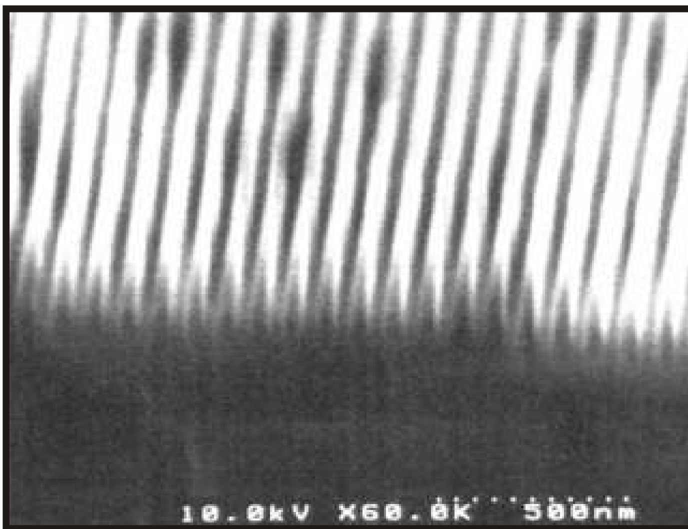
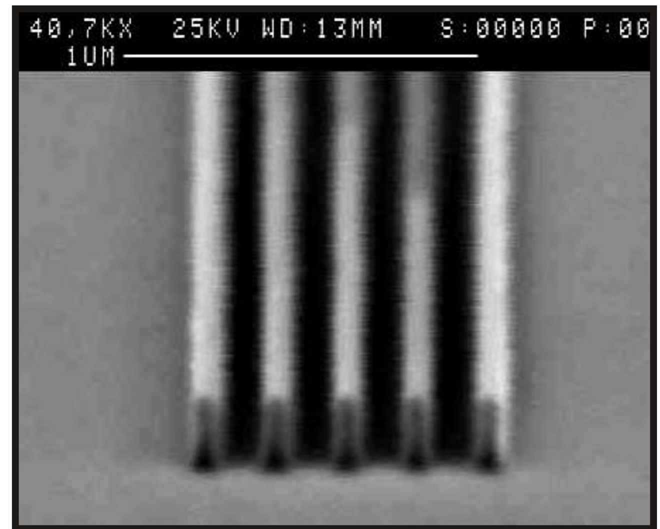
email: plasma@oxford.de

Plasmalab Data

Si ICP Etching: 50 nm lines and spaces

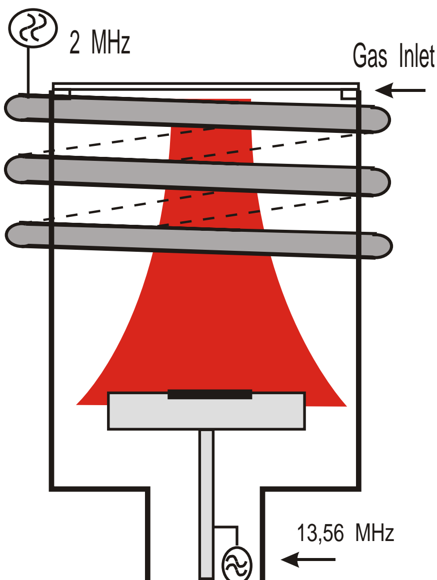




OPT application lab: ICP 380
50 nm and 100 nm lines and spaces etched in Si

Plasmalab System 100

Plasmalab System 133



Technology:

Reactive Ion Etching
with ICP Source (2 or 13 MHz)
Inductive Coupled Plasma
RF driven substrate electrode
Helium backside cooling

Results:

two step HBr based process
etch depth 200 nm
etch rate 40/ 100 nm/ min
selectivity to underlaying SiO2 > 200 : 1
anisotropic profile