PZ-07
www.oxfordplasma.de/process/pzt_rie.htm

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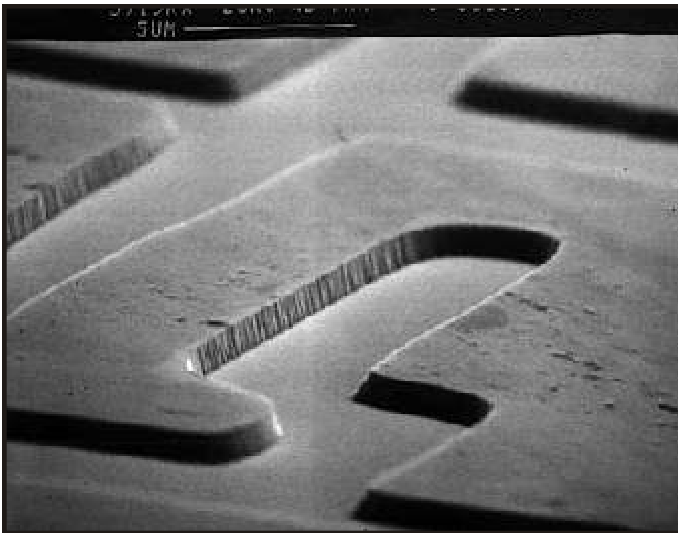
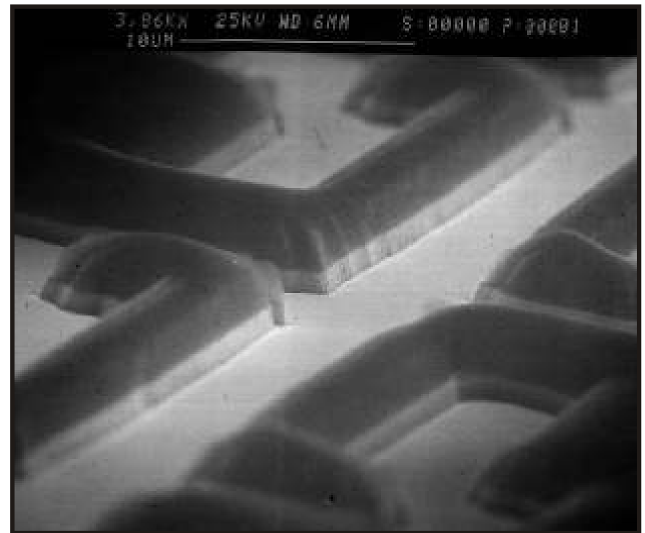
Plasmalab Data

PZT Etching (RIE, ICP)

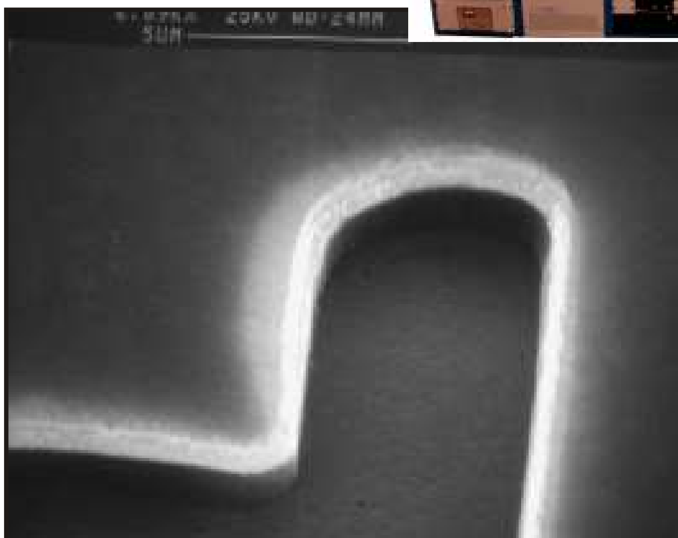




OPT application lab:
1 µm deep, anisotropic PZT RIE

Plasmalab System 100
Plasmalab System 133

Plasmalab 80 Plus
Plasmalab 800 Plus



OPT application lab:
anisotropic ICP etch of 400 nm PZT/
120 nm Pt /30 nm Ti, then etching
to a specified depth in LTO layer
(PR mask not removed)

RIE:
anisotropic etch
ca 20 nm/ min
selectivity to photoresist mask > 1 : 1
selectivity to underlying Pt > 50 : 1
uniformity ± 3 % (100 mm wafer)

ICP - RIE:
anisotropic etch
60 - 180 nm/ min
selectivity to photoresist mask > 0.5 : 1
uniformity ± 3 % (100 mm wafer)

A multi step process can be used to achieve vertical walls and about constant etch rates during an etch process through PZT and Pt. For stopping on Pt the PZT process can be optimised to achieve high selectivities to Pt (> 50 : 1). Endpoint detection by optical emission or laser interferometry is possible.