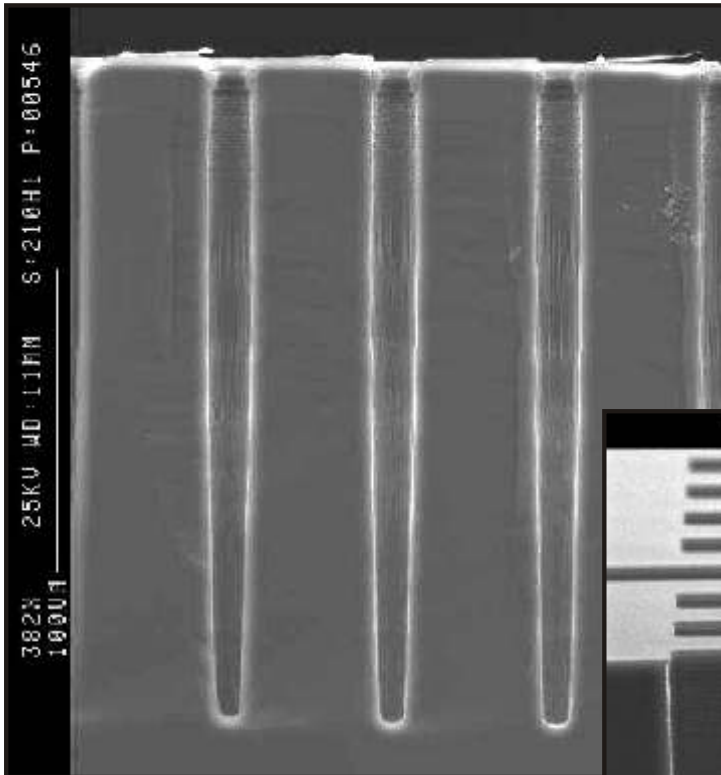


Plasmalab Data

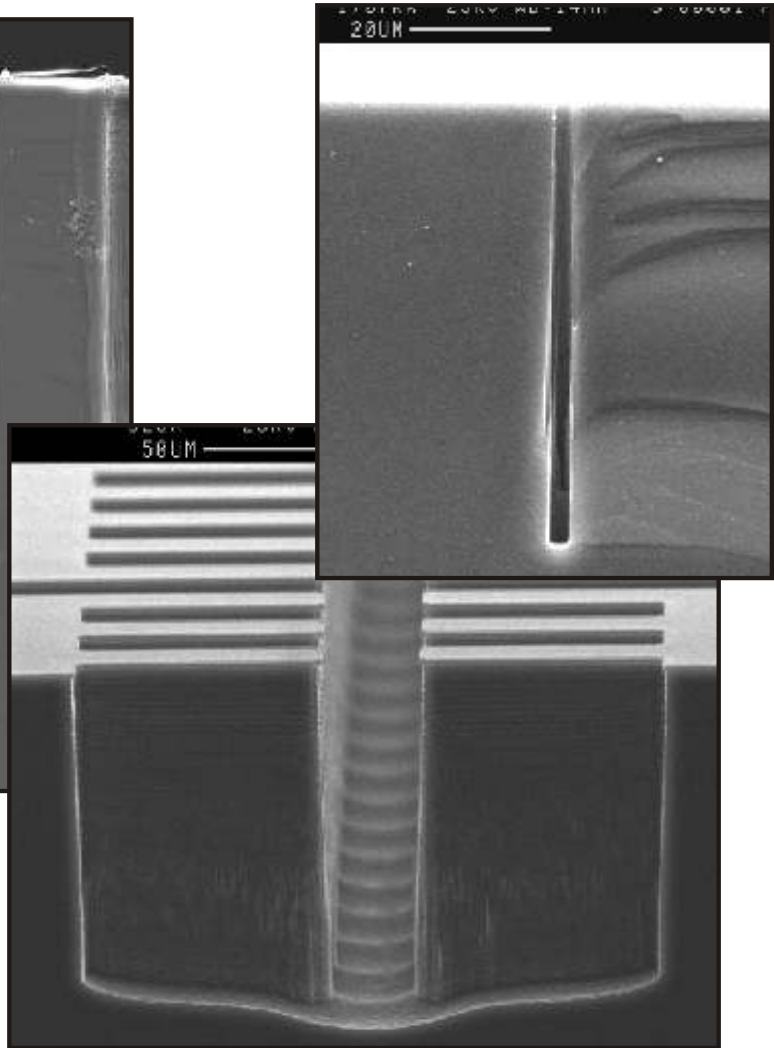
High Aspect Ratio Si Etching (MEMS)



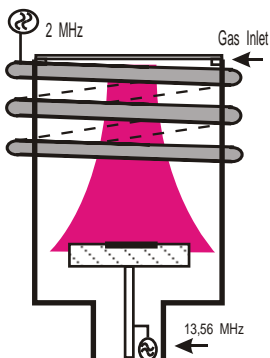
etched at the OPT application lab, Yatton (UK)

top left:
180 micron deep, 15 micron wide vias at
1.94 micron/ min, selectivity to SiO₂ 130:1

top right SEM:
60 micron deep, 3 micron wide at 2.47 microns/min,
selectivity to resist 48:1



Equipment: Plasmalab System 100



Technology:

Reactive Ion Etching
Inductive Coupled Plasma Source
room temperature "Bosch" process
He backside cooling

Results:

Rate : 1 - 10 $\mu\text{m}/\text{min}$
depending on the aspect ratio
Uniformity: $\leq \pm 2/3\%$ (4/ 6")
anisotropic etch
aspect ratio up to 30 : 1
controllable wall profile
high selectivity to Resist (> 75:1)
and SiO₂ (>> 100:1)