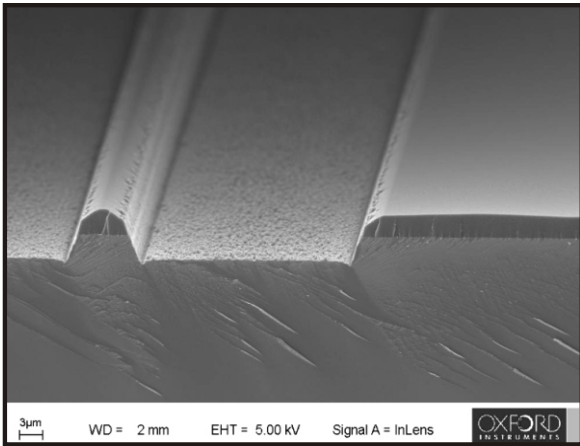
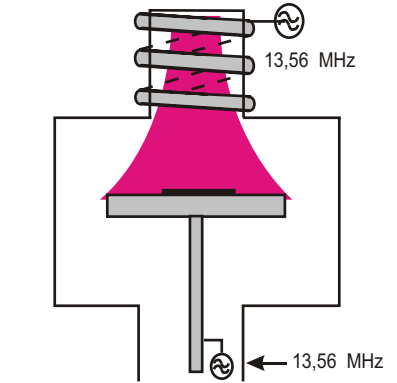
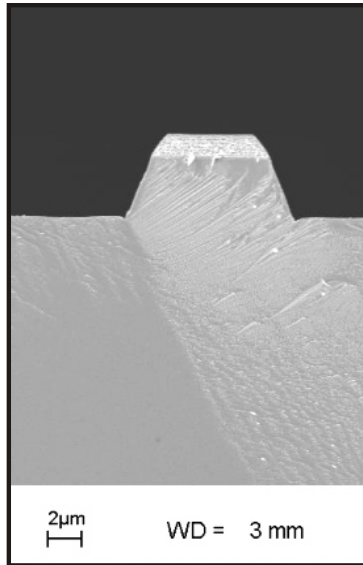


# Plasmalab Data

## LiNbO<sub>3</sub> Dry Etching



OPT application lab:  
 4 µm deep LiNbO<sub>3</sub> etch at > 50 nm/ min  
 with smooth walls (roughness < 10 nm)  
 PR mask not removed,  
 selectivity > 1.2 : 1  
 The process was optimised for smooth sidewalls  
 and avoiding redeposition resulting in "ears" or "fencing".  
 Some bottom roughness was acceptable in this case.



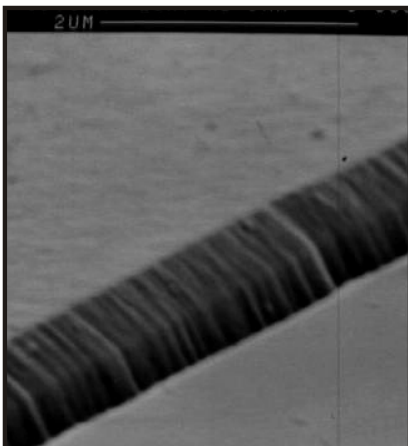
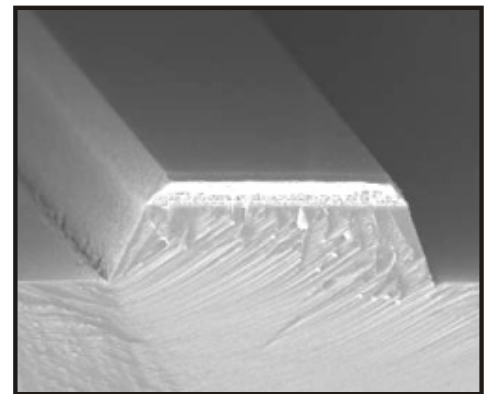
OPT application lab:  
 4 µm deep LiNbO<sub>3</sub> etch at > 40 nm/ min  
 with smooth walls (roughness < 10 nm)  
 (Ni mask not removed,  
 selectivity > 4: 1)



*Plasmalab 80 Plus*

*Plasmalab System 100*

*Plasmalab System 133*



OPT application lab:  
 0.35 µm deep LiNbO<sub>3</sub> Etch  
 (Ti mask not removed)

Technology:  
 Parallel Plate System  
 Cooled substrate electrode  
 13.56 MHz Plasma Excitation

Results:  
 Rate : ca. 3 nm/min  
 Selectivity to Ti mask: ca. 20:1  
 Smooth bottom  
 (The rate can be increased by adding  
 F, the 'facetting' of the mask is transferred  
 into the LiNbO<sub>3</sub>.)

