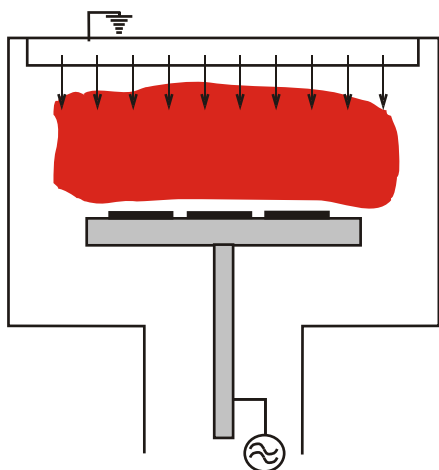
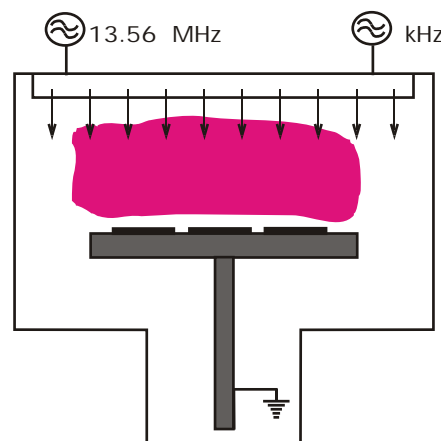


# Plasmalab Data

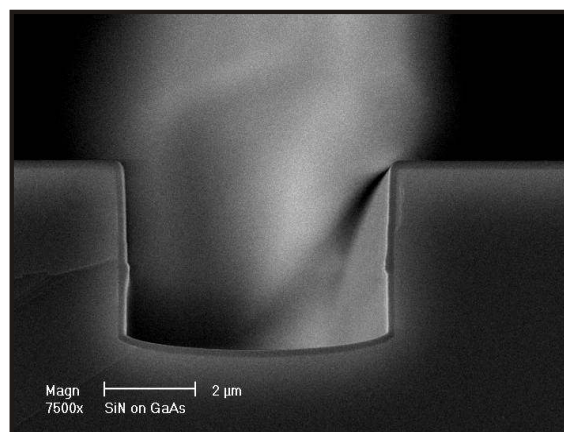
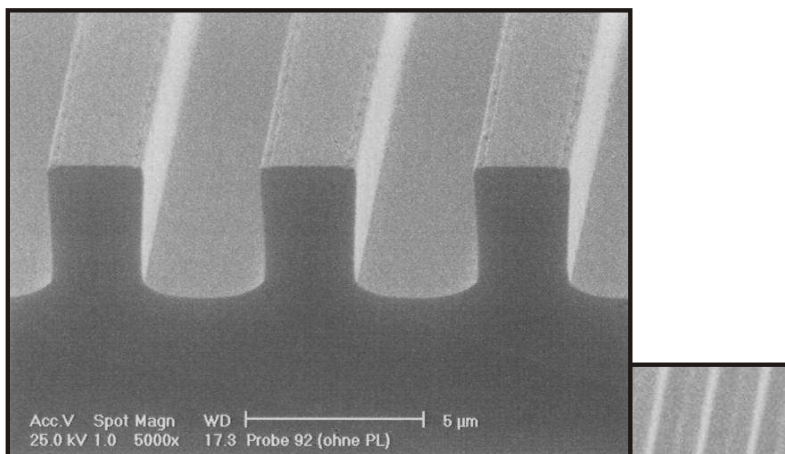
## GaAs RIE and Si<sub>3</sub>N<sub>4</sub> PECVD for laser mirrors



Reactive Ion Etching (RIE)



Plasma Enhanced Chemical Vapour Deposition (PECVD)



**RIE:** *Plasmalab 80 Plus "Master"*  
**PECVD:** *Plasmalab 80 Plus "Slave"*

SiN deposition rate: 10 - 20 nm / min  
 conformal coating  
 uniformity < +/- 2 % (4" wafer)  
 GaAs etch rate: 30 - 80 nm/ min  
 anisotropic etch  
 selectivity to the mask: > 30 : 1

300 nm Si<sub>3</sub>N<sub>4</sub>: conformal deposition  
 anisotropic GaAs etch using a photoresist mask

Courtesy of TU Vienna, Institut für Festkörperelektronik  
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