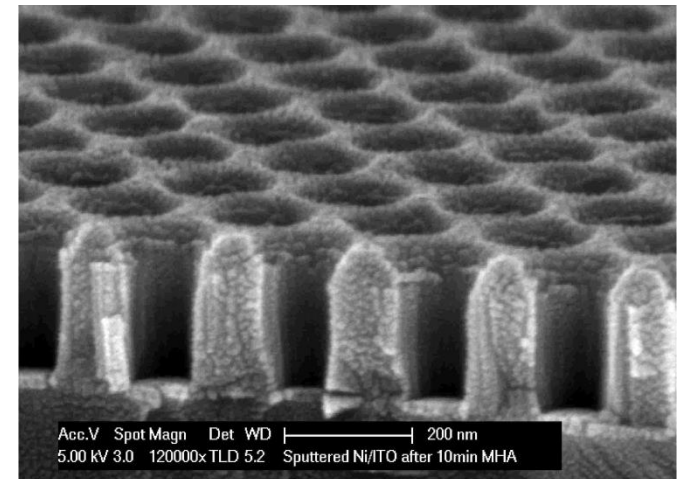
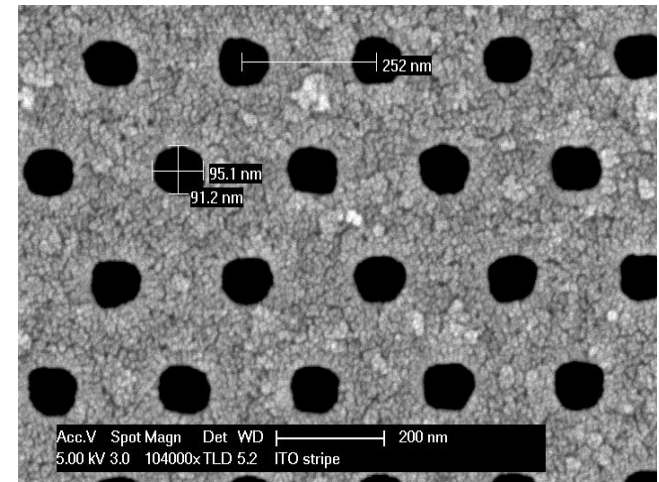


RIE2 - Fabrication of ITO photonic crystals

- In_2O_3 doped with SnO_2 (10% by weight) (Evaporated)
- MHA etch based on InP etching
- Cyclic etching to combat polymer build-up:
 - $\text{CH}_4/\text{H}_2/\text{Ar}$ (4/22/4 sccm) 50mT 500V 5min
 - O_2 (20 sccm) 50mT 200V 3min
- Bulk etch rate $\sim 35\text{nm}/\text{min}$
- Rate depends strongly on ITO quality
- SiO_2 or SiO_2/Cr hard masks
- Example: ITO PhC with $a = 224\text{nm}$

Elizabeth Rollings



ITO PhC with SiO_2 hard mask