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InP Etch using Unaxis PM1 at 200 C (2-17-2016)

Experimental:

1) PM1 Chamber O2 plasma clean for 30 minutes (Tony).

2) PM1 Chamber coating with a quarter of 2” InP wafer for 15 minutes.

3) Mounting a patterned InP sample onto a Si carrier with high-vacuum grease.

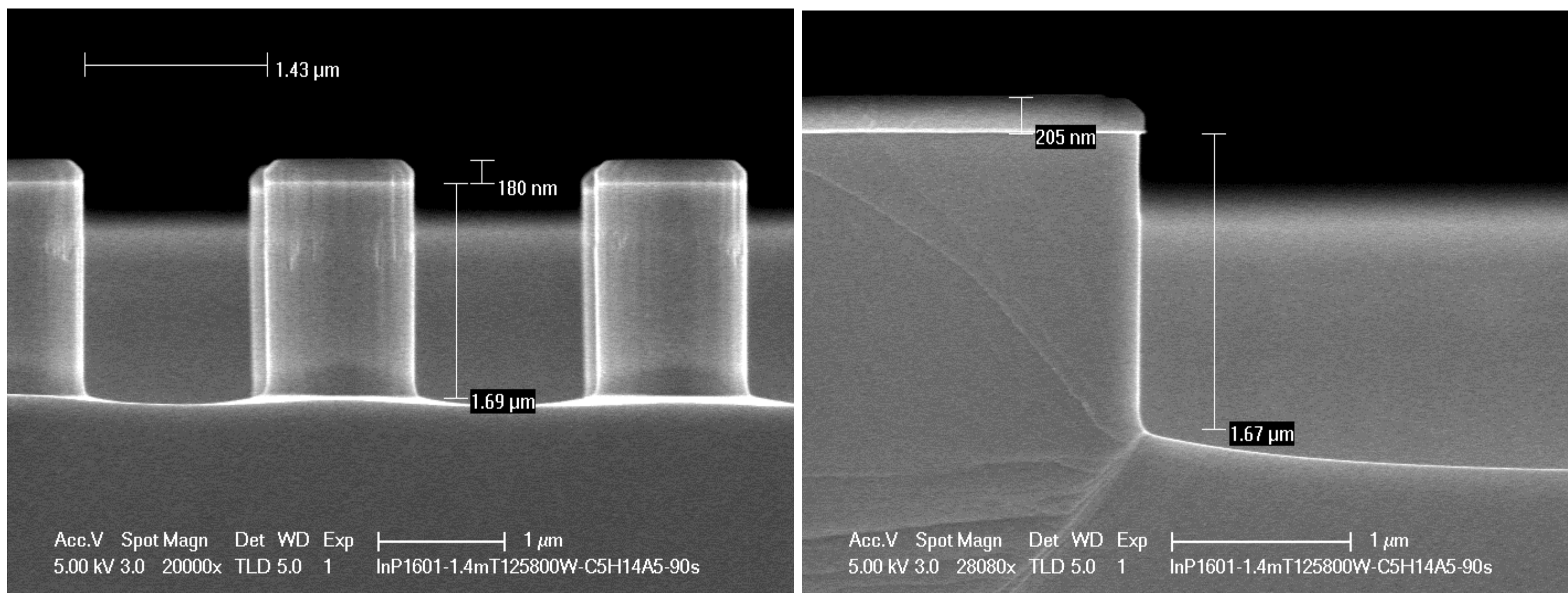
4) Sample Etching: 1.4mT, 125/800 W, Cl2/H2/Ar flow-rate=5/14/5 sccm, etch time=90 seconds.

5) Immediate after etching, soak the etched sample into DI water for a couple of minutes to remove chlorine residue.

Result:

Etch rate=1.11 μm/min; Etch selectivity (InP/SiO2) =13.4.

Figures 1 Etch profile.



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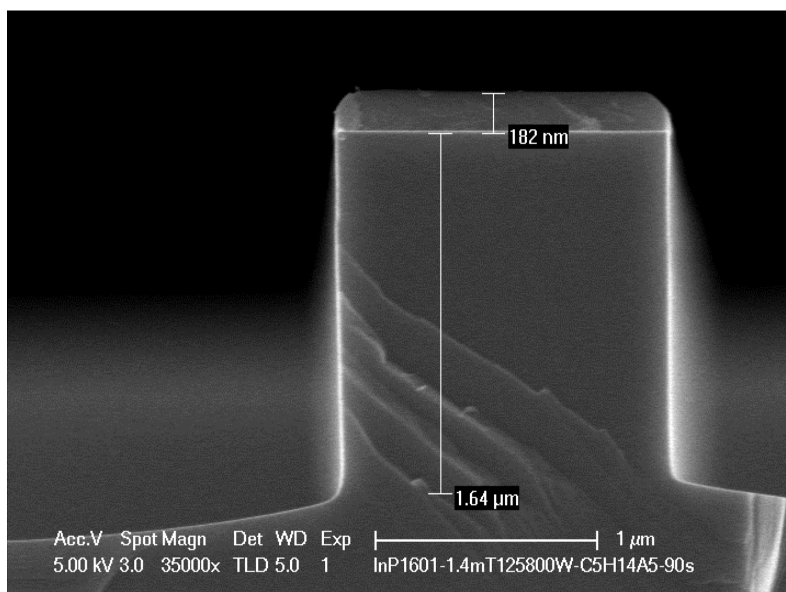

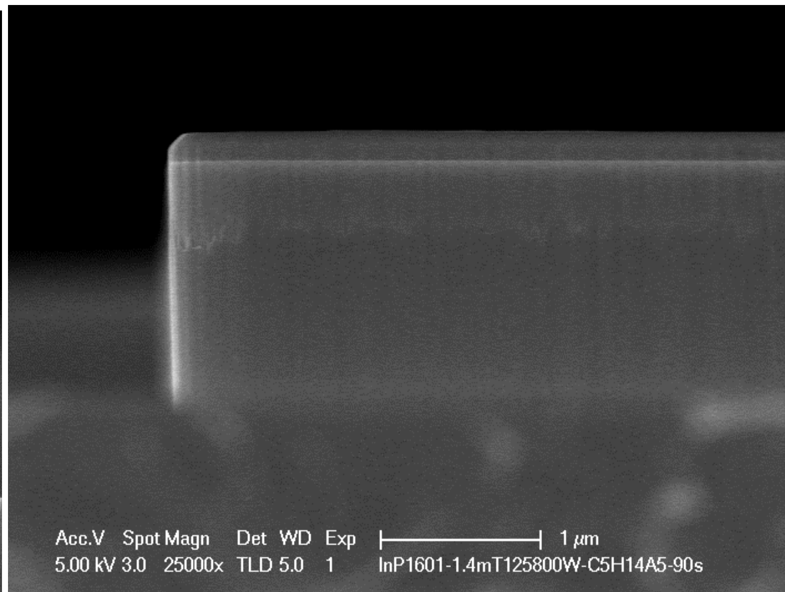

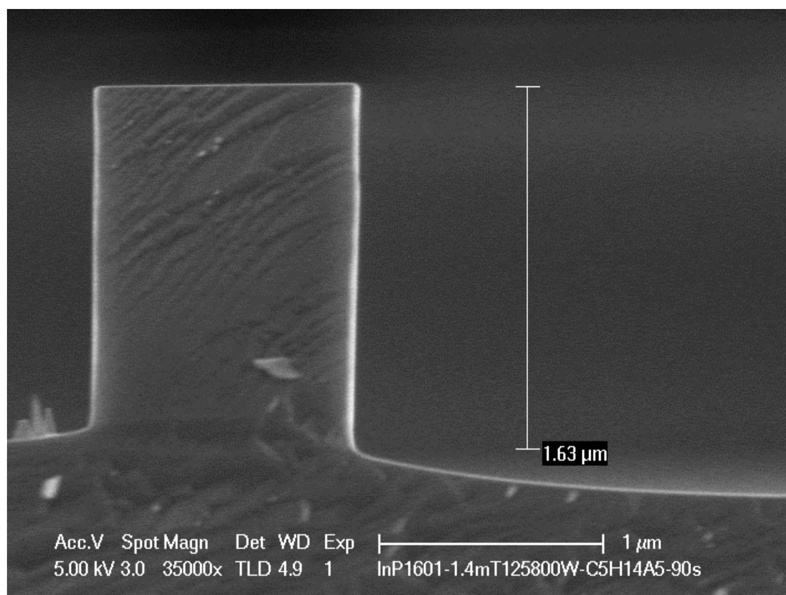

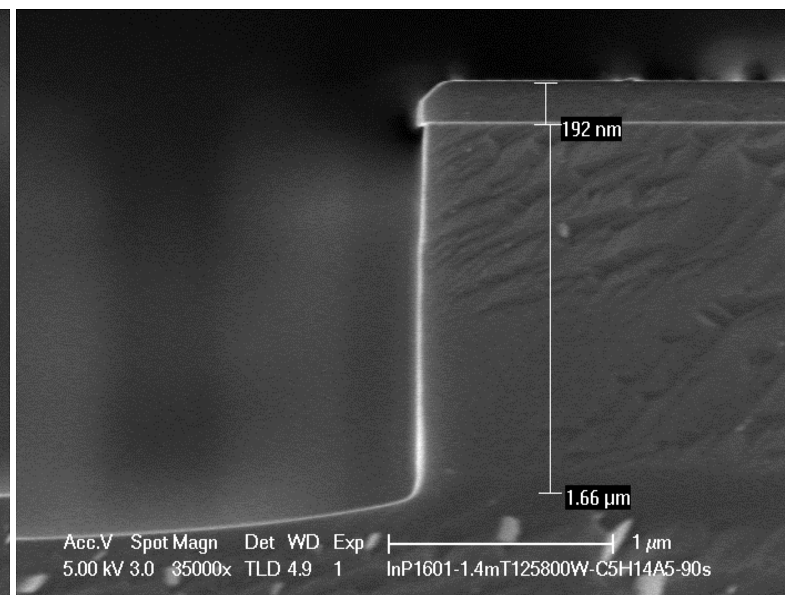

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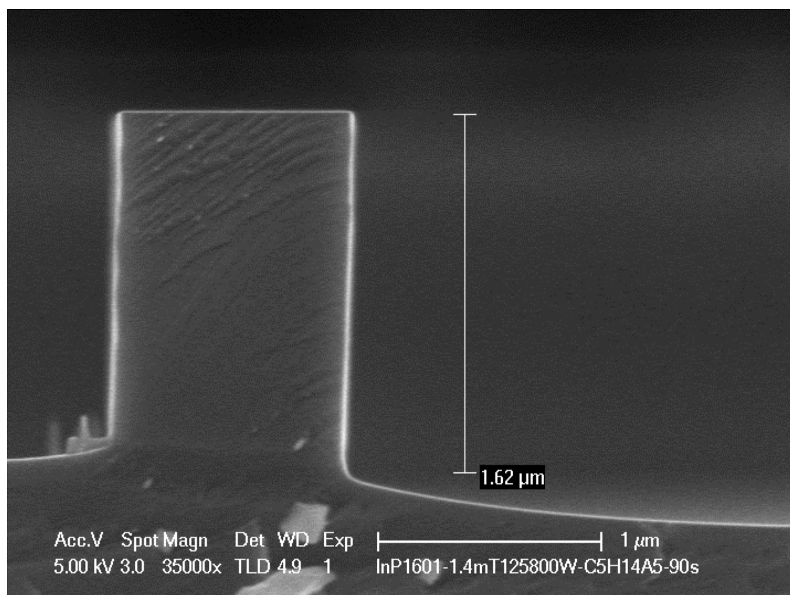

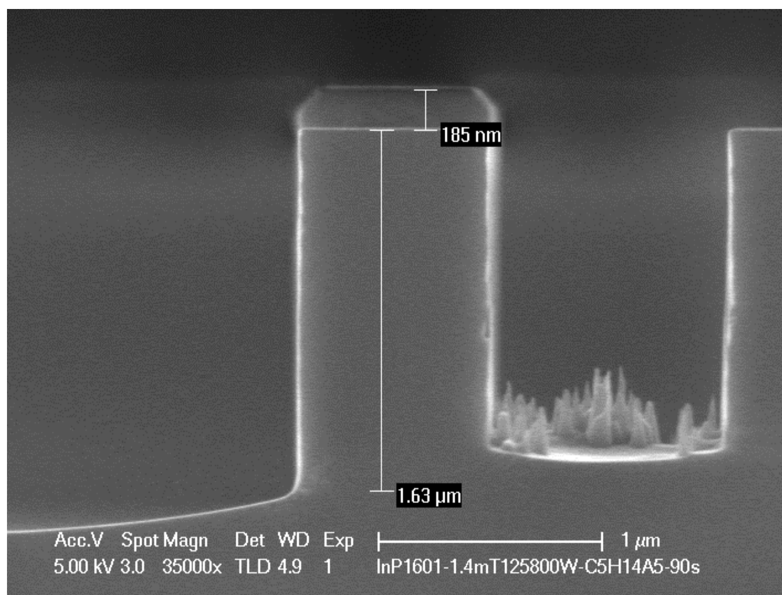

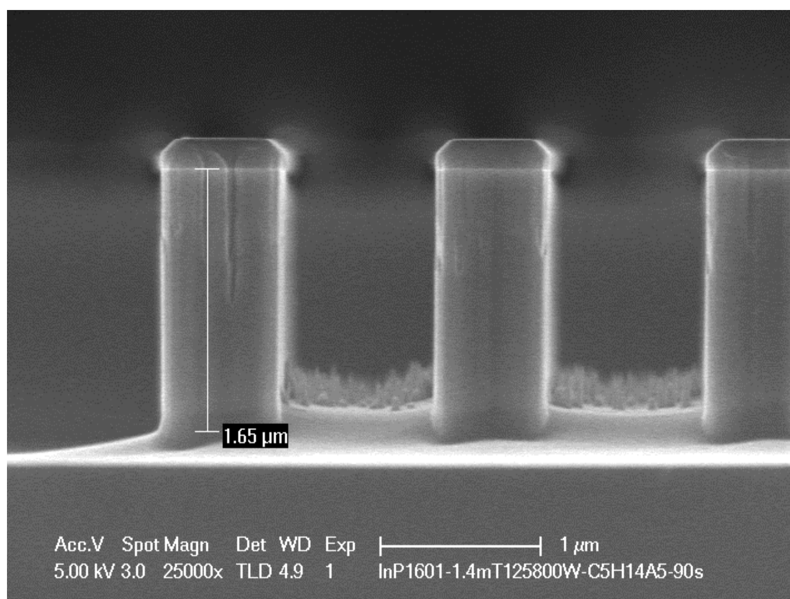

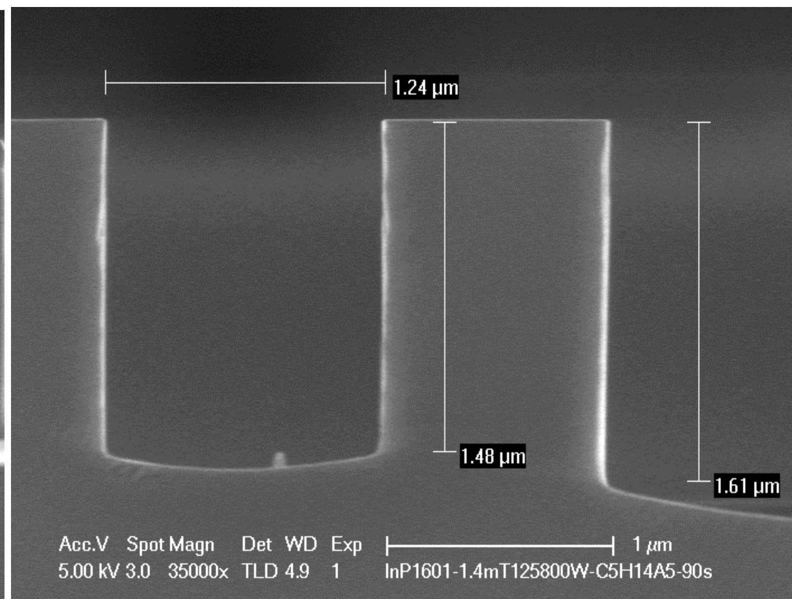

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