

NAVOLCHI September

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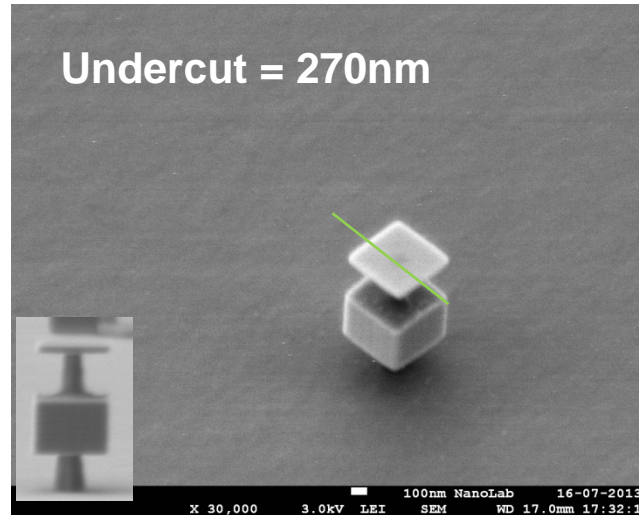
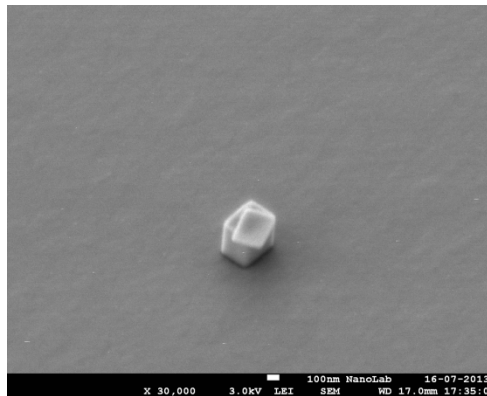
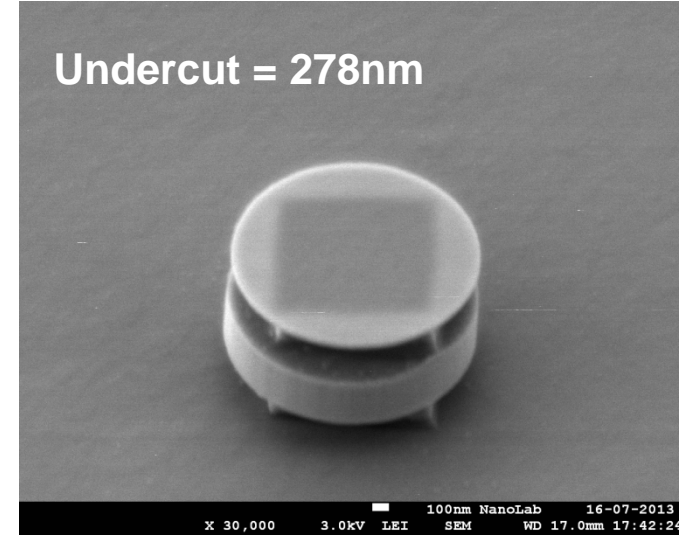
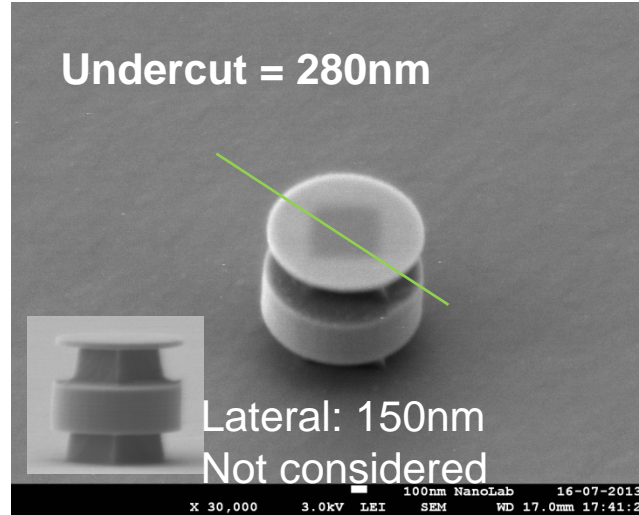
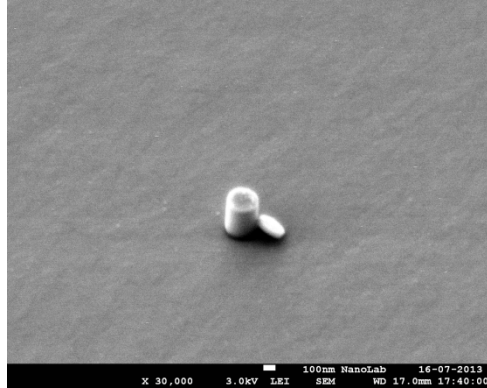


TU / **e** Technische Universiteit
Eindhoven
University of Technology

Where innovation starts

Pillar undercut

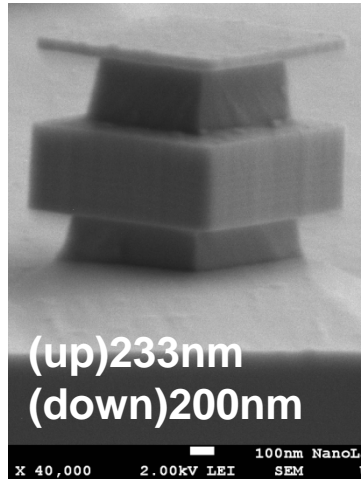
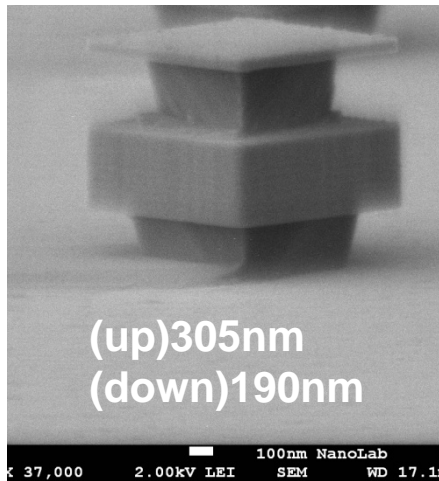
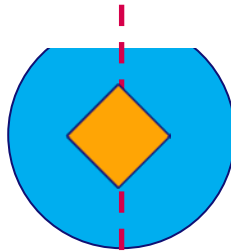
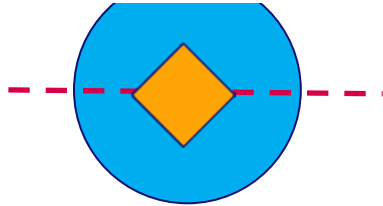
HCl:H3PO4 (1:4), 16sec, 23.5C



Etch rate: 17.25 nm/s

Pillar undercut

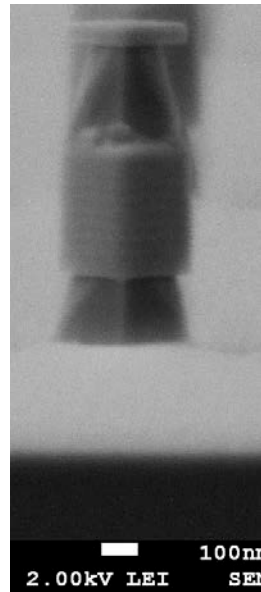
H₂O:H₃PO₄:HCl (1.5:4:1), 30sec, 25C



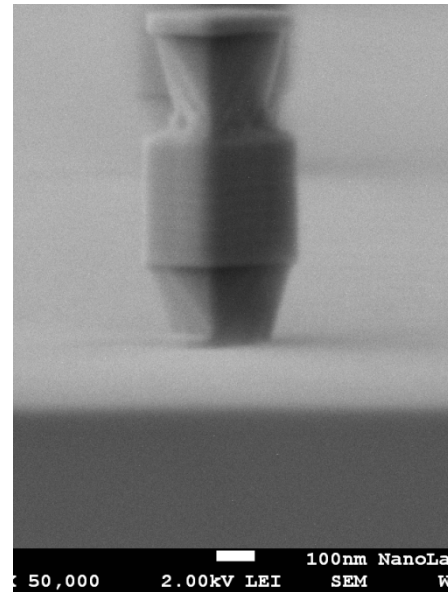
Etch rate: 6.3 – 10.1 nm/s

Pillar undercut: best result

Perpendicular

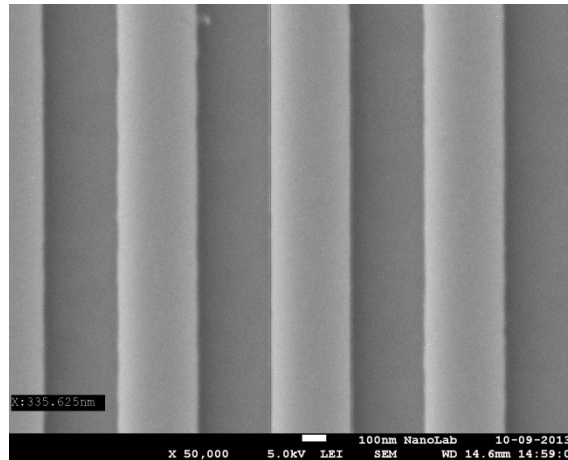


Parallel



Other fabrication results

- Masking scheme for grating couplers: done!
 - ZEP (300nm) / SiN (15nm) / HSQ (~50nm) / Q1.25(50nm) / InP(220nm)



- Next:
 - Design masks set (EBL and optical lithography)
 - Do first complete run of nanolasers

Upcoming milestones

- MS15: Initial testing of bonded plasmonic lasers - **10/2013**
- Delivery date: if 1st run goes fine, first characterization results are expected during February 2014. Otherwise additional months are required.

