

NAVOLCHI

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TU / **e**

Technische Universiteit
Eindhoven
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Where innovation starts

Milestones and Deliverables

MS40	Individual plasmonic devices characterization, testing and evaluation	WP 6	TU/e	04/2014
D6.1	Report on characterization results of all plasmonic devices	WP 6	TU/e	01/2014

→ In preparation. All partners developing devices (KIT, UV, UGent) are required to send their contributions by October 12.

2nd run in process

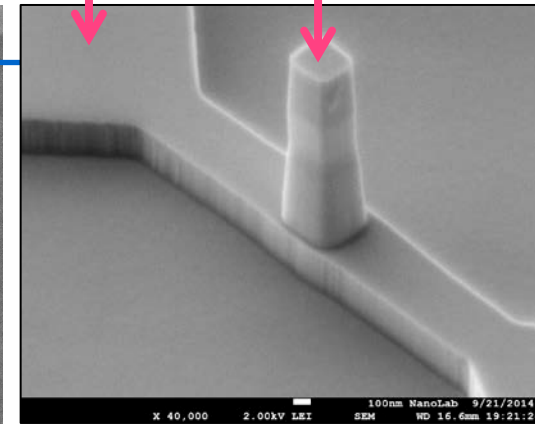
- 2 chips: 45% and 70% of progress
- Pattern size: 7x7 mm²
- Number of devices: ~200

- What is new with respect to previous run?
 1. Use of Ge/Ag contacts: low contact resistance + low loss
→ Potentially patentable (under internal discussion)
 1. Use of thick (BCB) bonding to minimize outgassing
 2. Minimized length of coupling taper to allow cryogenic characterization
 3. Grating couplers designed for broadband operation (emission wavelength is not expected to be well controlled)

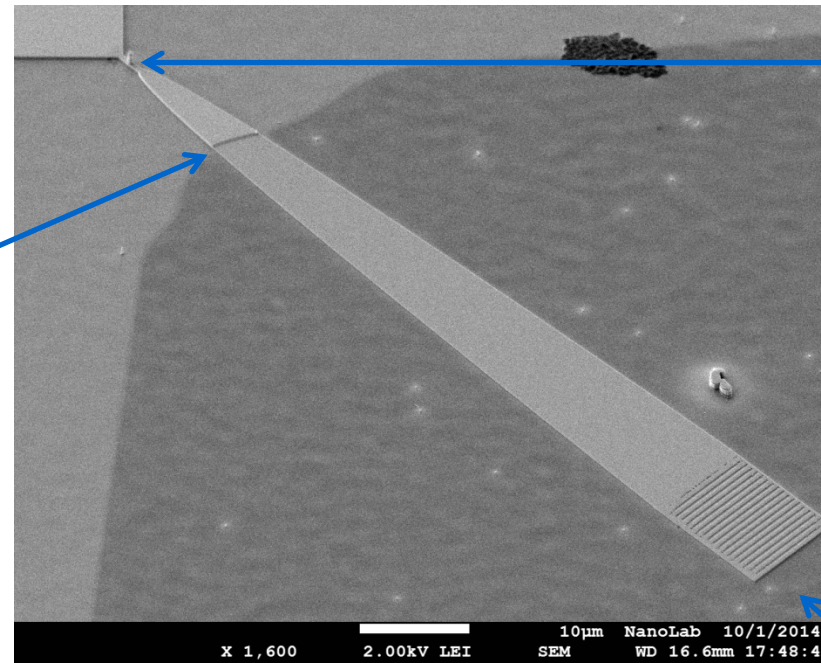
Current run

P-contact

N-contact

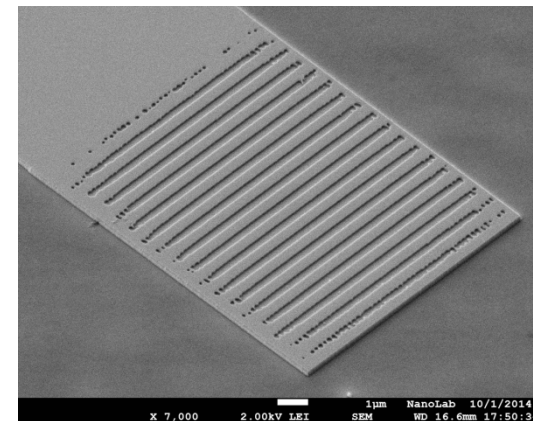


Pillar cavity

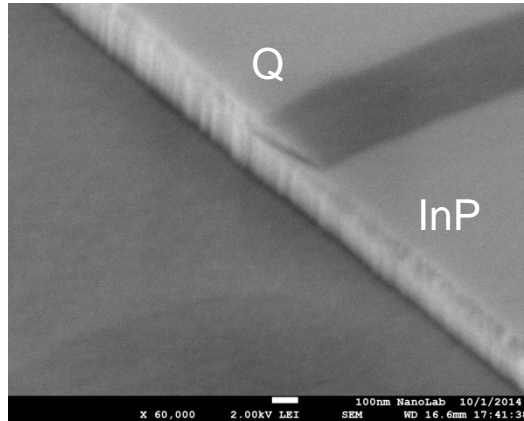


Panoramic view

Grating coupler



Removal of lossy layer



- Run to be finished in ~3 weeks
- Critical steps to be done: planarization & annealing