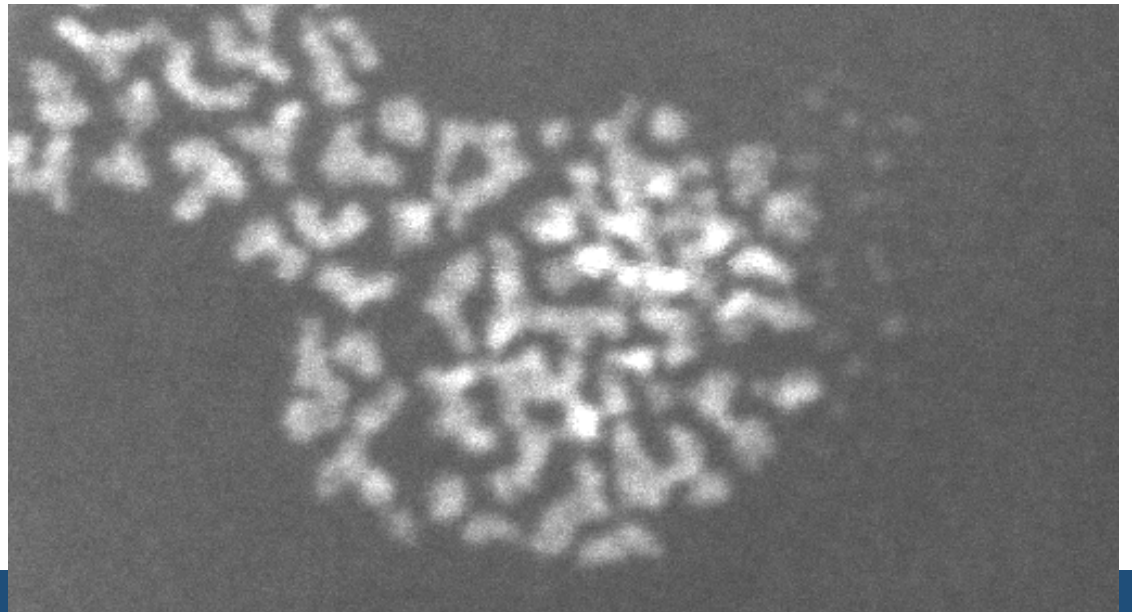


HgTe-qdots

Recap: Demonstrated gain in solution

When depositing on substrate

- Red shift
- Clustering visible
- Working on improved material

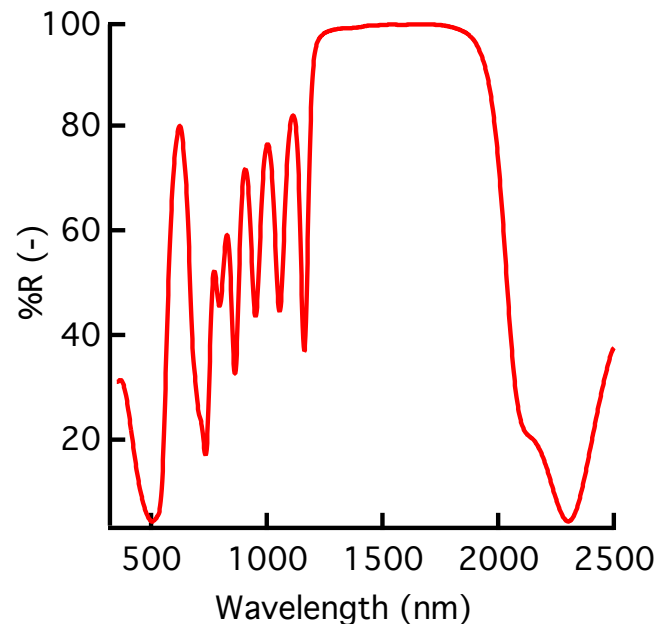
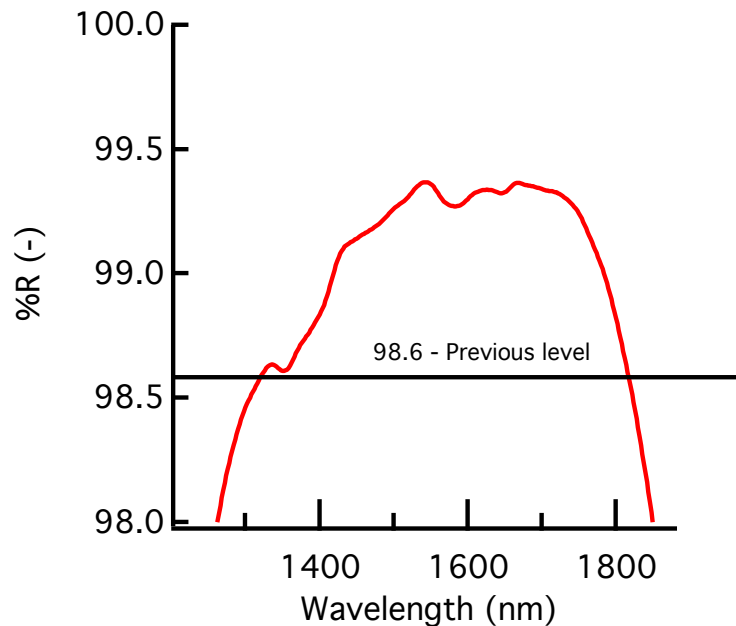


DBR-mirrors for VCSEL like device

Objective: demonstrate gain in HgTe layers through embedding in planar DBR-mirrors

Need: mirrors with >99% reflections

New mirrors with 7 periods show 99.3% !



In-line amplifier

Mask for SiN-based devices arrived

First run completed:

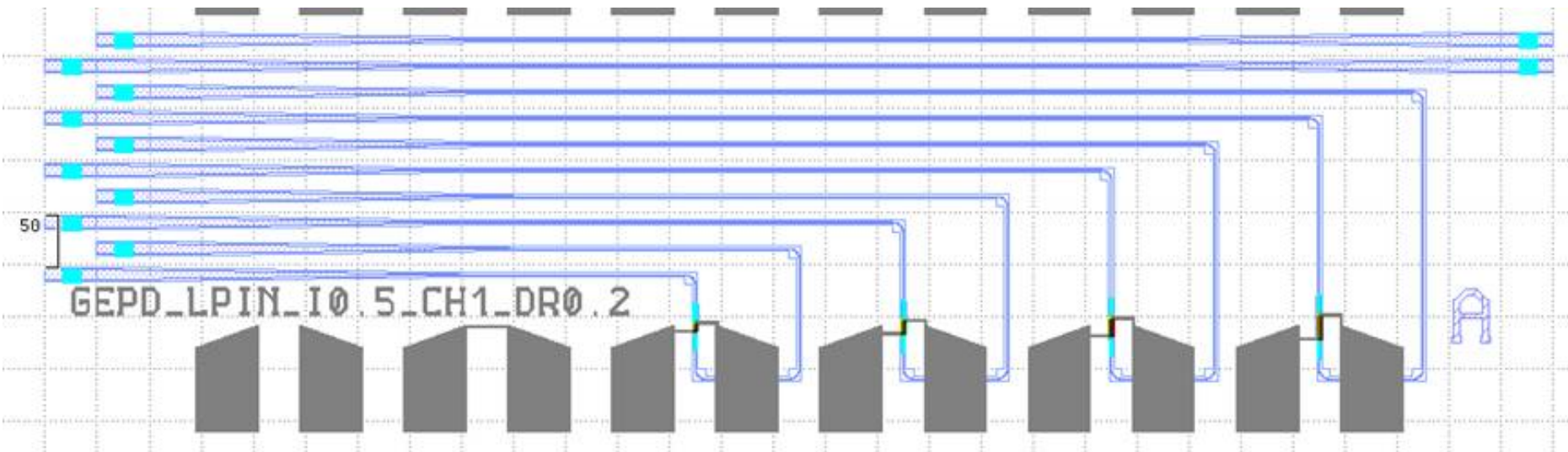
- Straight waveguide fabricated
- Planarized
- Resonator defined on top

Next step: integration with HgTe QDots

- Process scheme under discussion

Detector Back-up

- 50 um pitch available in “large volume” : should we send new samples ?
- No new designs prepared (too high cost)



Status deliverables/milestones

D5.3 Couplers/Filters

- Writing in progress – draft expected Wednesday.

D5.5 Report on plasmonic waveguide couplers

- KIT ?

MS22 Demonstration of plasmonic amplifiers with optical pumping exhibiting 10dB gain

- Delay
- Amplification in solution demonstrated, now working towards waveguide version

MS33 Design of second generation beam shapers

- Target is December run of epixfab