Progress meeting

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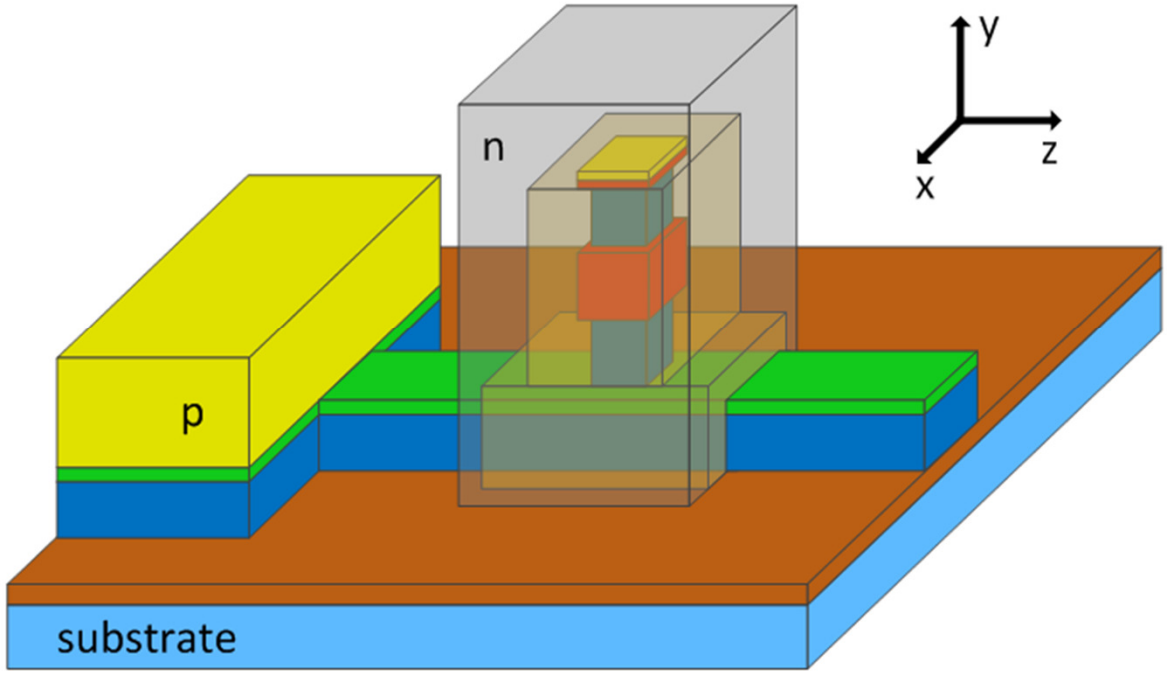
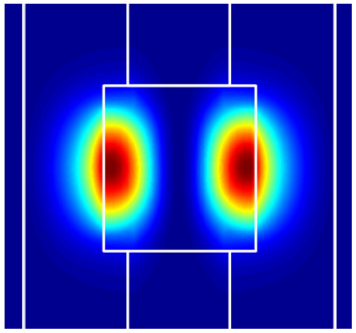
Where innovation starts

Metallo-dielectric nanolaser



- InP (3.17)
- InGaAs (3.55)
- Q 1.25(3.36)
- SiO_2 (1.45)
- Si (3.47)
- BCB (1.54)
- Ag (0.14 + 11.4i)
- Au (0.53 + 10.8i)

$|E|^2$, TE mode



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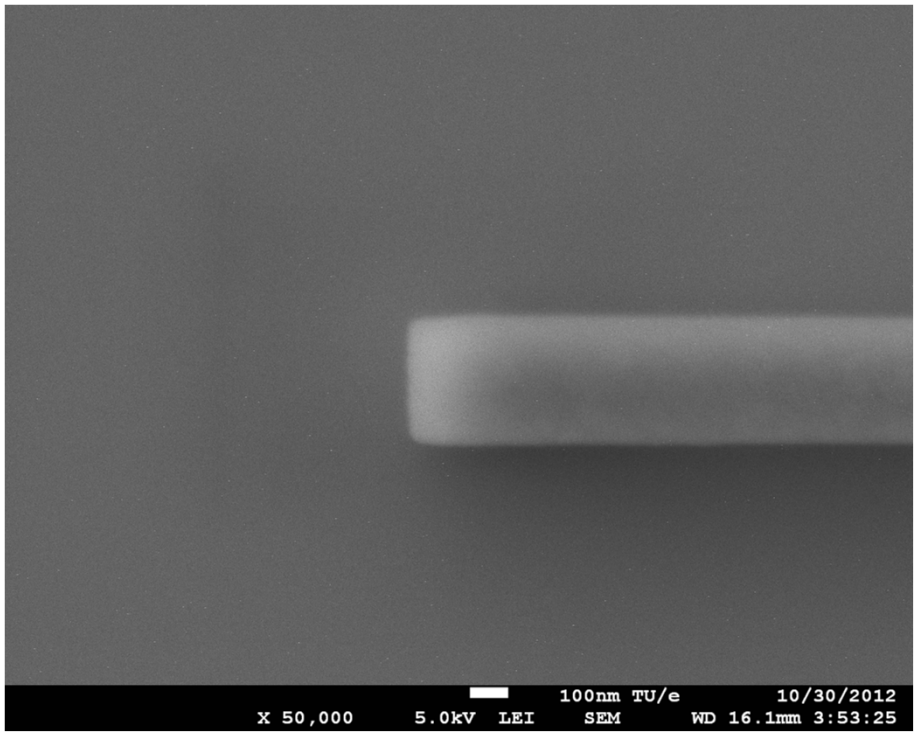
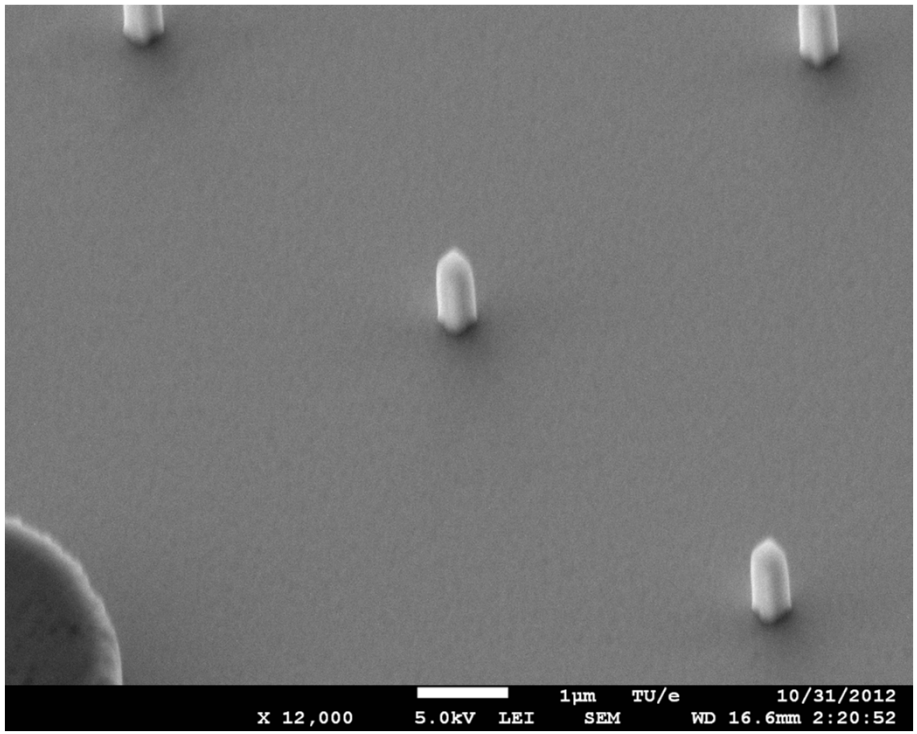
Current processing

- Waveguides (400 nm wide)



- Pillars (300 nm x 300 nm)



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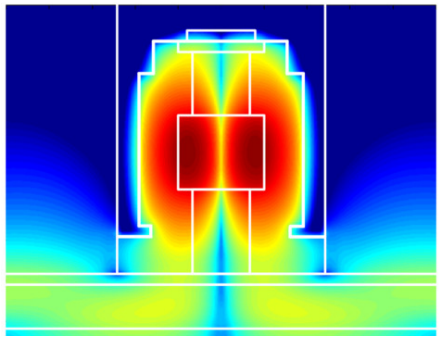
Activities

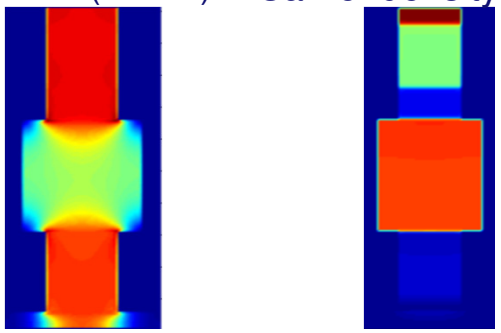
- Optical simulations



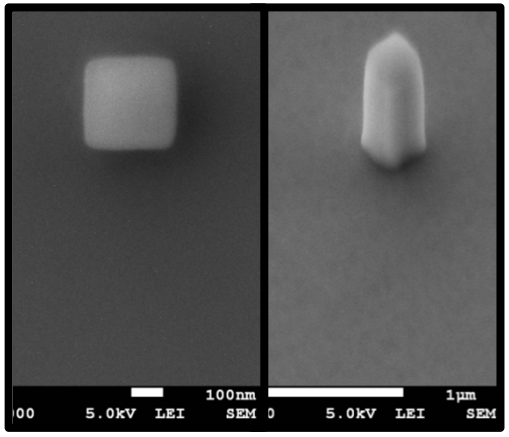
$\log(|E|^2)$

- Electrical simulations

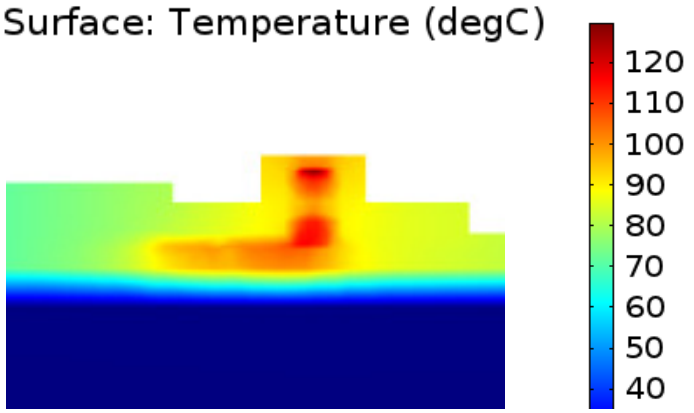
Current (A/cm^3) Carrier density ($1/cm^3$)



- Fabrication



- Thermal modeling



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Milestones and deliverables

- Deliverable 3-1: Report on studies of optimized structure for metallic / plasmonic nano-laser and its coupling to Si WG (Submitted)

- Milestones to discuss:
  - MS10 - Grown wafer structure for plasmonic lasers (IMEC, 10/2013)
  - MS13 - Initial characterization of unbonded plasmonic lasers (TU/e, 04/2013)
  - MS15 - Initial testing of bonded plasmonic lasers (TU/e, 10/2013)