

Processing your design on quartz wafers by using imec's advanced CMOS line

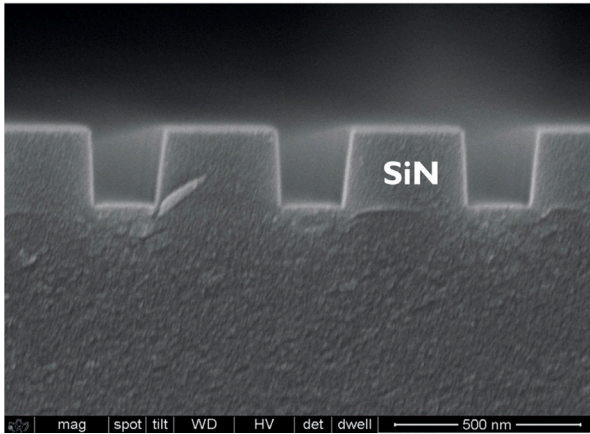
At imec, it is possible to produce your complex optical device (e.g. waveguides, gratings, micro-lens, meta material, etc...) or master for NIL directly on 200mm/8-inch Quartz wafers by using imec's advanced CMOS line. Imec's capabilities includes 193nm lithography on Quartz. In addition, imec provides front side/back side with extreme high alignment accuracy.

Key features:

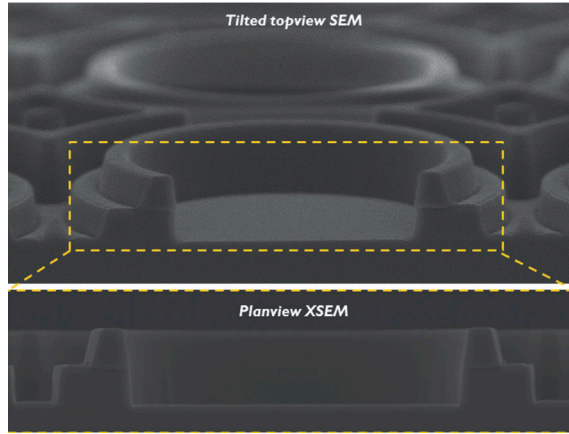
- 200mm/8-inch Quartz wafer
- Nano-features and tight tolerance
- Front side and back side extreme high accuracy alignment
- Several materials deposition (SiN, SiO₂, Si, Metals etc....)
- Extreme low loss SiN photonics
- Flat optics (Fresnel lens and meta-lens)
- Reproducible and manufacturable

Applications

- Smart glasses
- AR/VR
- Masters for Nanoimprint lithography (NIL)
- Sensors on glass



Example of 250nm (PECVD) SiN photonics structure (waveguide) processed directly on 200mm/8-inch Quartz wafers.



Example of a Flat Optic Element (Fresnel phase plate lenses).

Why work with us?

Imec as a TECHNOLOGY PROVIDER

Design and develop platforms from concept to prototype

- Based on imec's tested and proven platforms, we build your **next-generation product**.
- Imec offers flexible **access to state-of-the-art technology**, tailored to your application and strategic needs.
- **Differentiator:** in-house experts and application engineers work with you to understand your application and translate it to technology.

Imec as a PARTNER

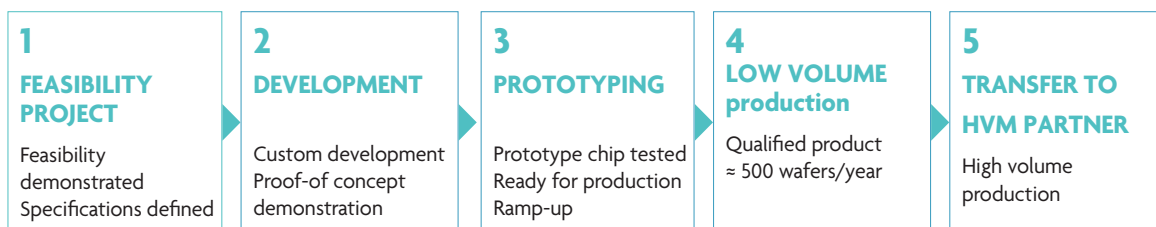
Design, develop and prototype your chips

- We develop and prototype **your silicon-based product**, starting from your concept or roadmap.
- Imec offers the vast engineering **expertise** and unique infrastructure to develop your next-generation product.
- **Differentiator:** we work with you to design your system, develop a design into a product, or do a prototype run (or any combination of these). We help you set-up low-volume production and assist with the transfer to large-volume manufacturing.

Imec as a FAB

Prototype and manufacturing your solution

- In our industrial-grade ISO9001-certified cleanrooms, we can **prototype your silicon-based applications**.
- Our experienced team of processing specialists will work with you to **translate your concept** into a stable and scalable manufacturing process.
- We support you with **manufacturing, from low to high volumes**.



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