



Fraunhofer Institute for Applied
Optics and Precision Engineering IOF

Fiber technology

Solutions along the entire process chain
from design to application

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Basic research

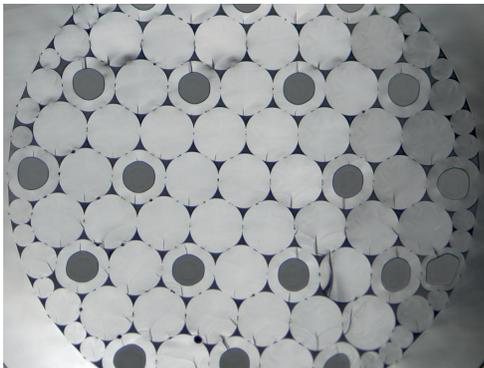
- Fiber design
- Laser simulation

Fiber core material

- Chemical Vapor Deposition (MCVD, SPCVD)
- Optimization of pump absorption
- Optimization of photodarkening
- Low NA fibers
- Micro-/nanostructured active laser cores

Preform technology

- Stack-and-draw technology
- Deep hole drilling of glass preforms



Stacked preform.

Fiber drawing

- Active and passive fibers
- Multi-core fibers
- Polarization maintaining fibers
- Photonic crystal fibers
- Hollow-core fibers

Laser glass processing

- Freeform fiber taper
- Fiber and endcap processing

Fiber components

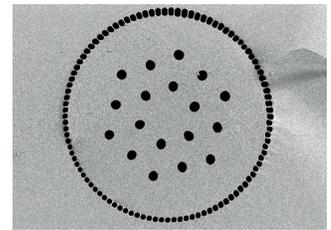
- High power signal combiner
- Pump coupler
- Fiber Bragg gratings



Drilled preform.

Cover: Fiber exiting
the draw tower furnace.

Top: Fluorescent
Ytterbium doped fiber
under laser operation.



Drawn fiber: LPF with Airclad.

Contact

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