

- 1 Production of an active doped preform using MCVD-processes.
- 2 CO₂ laser ablation on silica glass rods for tailor-made preform machining.

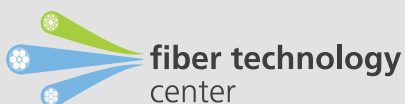
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The Fraunhofer IOF is part of the new established fiber technology center located in Jena, Germany.

PREFORM AND FIBER TECHNOLOGY

Our Offer

Development and qualification of active and passive preforms, fibers and corresponding components as optimized answer to issues faced by our partners.

Complete characterization of fibers and components (S²-, photodarkening and loss measurements) including high power laser qualification.

Characteristics

- Preforms:**
- Length up to 1 m
 - Core diameter > 3 mm
 - Co-dopands: Al, P, Ce, Ge, B, F
 - Active ions: Yb (Er, Tm, Ho, Nd)
 - Tailored index profiles
 - Low photodarkening
 - Longitudinal index variation < 10⁻⁴

Fibers:

- Active and passive fibers
- Single- and Multi-Mode Designs
- SM output power > 5 kW
- Residual attenuation:
< 30 dB/km @ 1300 nm

Application

- Fiber lasers
- Fiber amplifiers
- High power delivery
- Integration into your application

Technology

- MCVD: solution and gas-phase doping
- Micro- and nanostructuring technologies, e.g. Stack and Draw
- Speciality fiber drawing
- Glass processing (CNC, polishing, drilling, CO₂ laser processing)
- Inline polymer jacket extrusion