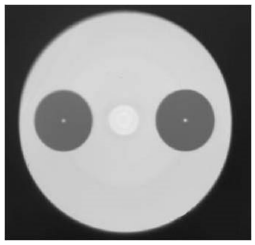
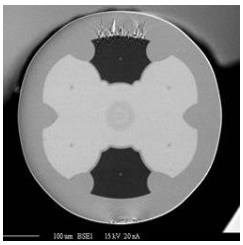
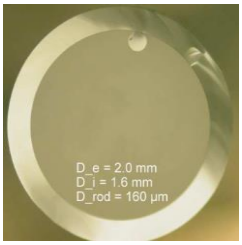
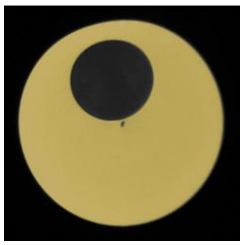
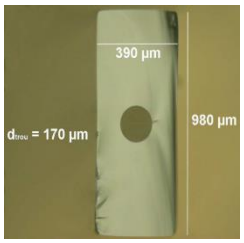
SPECIALTY OPTICAL FIBERS

Custom optical fibers to meet your specific needs

FIBER FABRICATION EXPERTISE

We select the best solution and use our broad experience to develop custom optical fibers tailored for your application

Fiber types and expertise

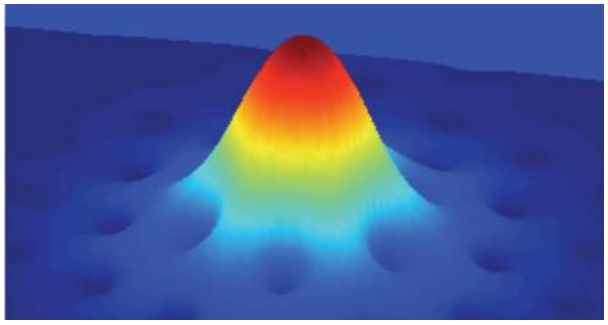
- Silica optical fibers of various chemical compositions
- Single, double, and multiclad rare earth doped optical fibers
- Low-photodarkening Yb-doped fibers
- Polarization maintaining (PM) optical fibers
- Microstructured optical fibers
- Custom capillaries; circular/ non-circular cross-sections
- Fiber post-processing
- Polymer optical fiber drawing

Applications

- Fiber lasers and amplifiers
  - High peak-power applications
  - Endcaps
- Biophotonics
- Optical fiber sensors
  - Physical sensing
  - Chemical sensing
  - Opto-fluidic systems

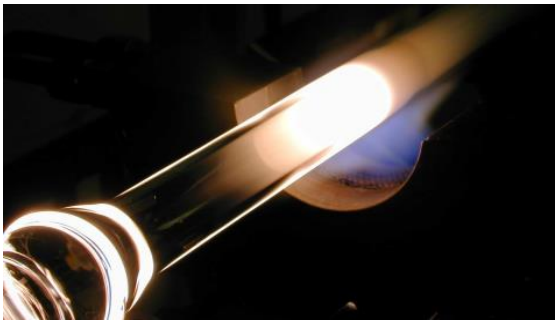
FIBER MODELING AND SIMULATION

Mode profile, NA, birefringence, dispersion, bending losses, etc.



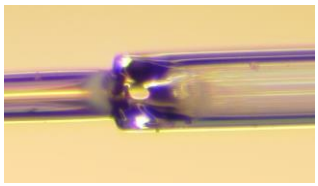
MANUFACTURING

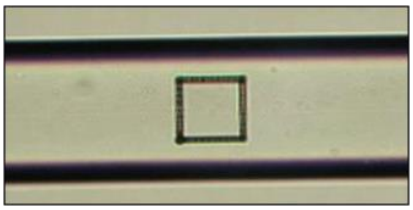
From preform fabrication to final fiber drawing



LASER MICROMACHINING OF SPECIALTY OPTICAL FIBERS

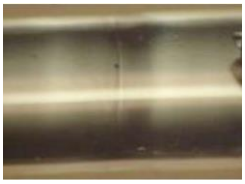
Drilling

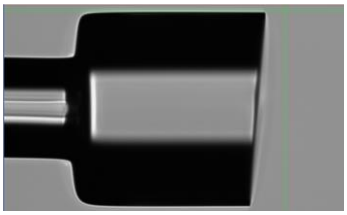




Micron-scale micromachining of grooves and holes in fibers

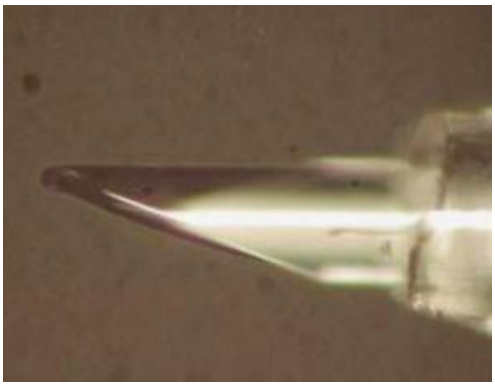
Welding





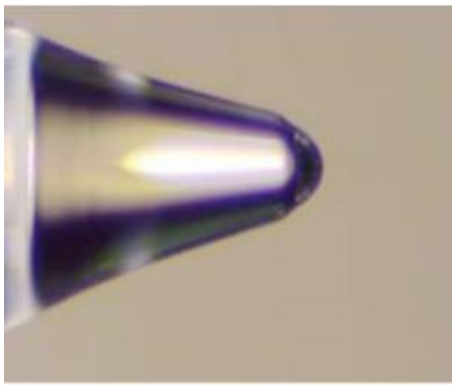
Adhesive-free components assemblies using laser welding

Cleaving



Laser cleaving for unique cleaving angle control and reproducibility

Lensing



Fiber lensing with curve radii down to 5 µm

FACILITIES

- MCVD and glass lathes
- Fiber drawing towers
- Ultrasonic drilling equipment
- Laser micromachining application labs
- Characterization and modeling of photodarkening in active fibers

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