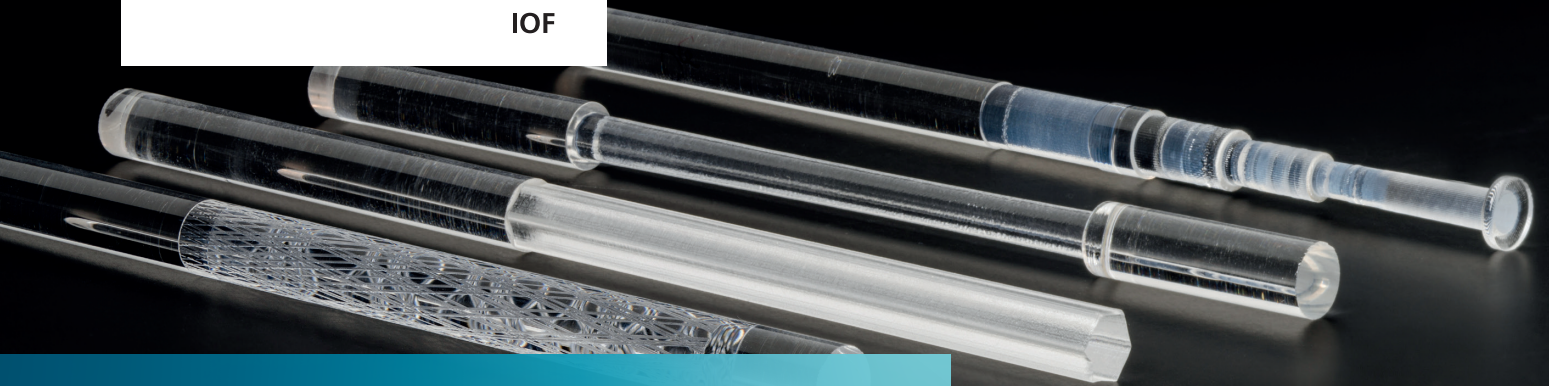


Generation of fused silica glass
surfaces with CO₂ laser



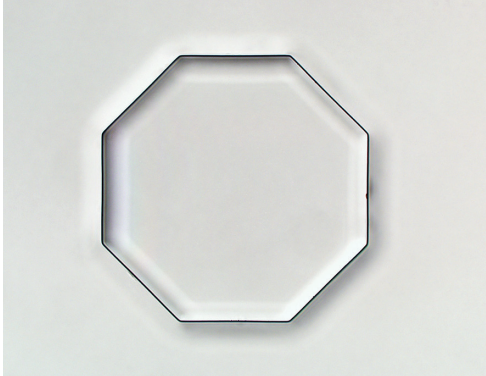
CO₂ laser processing for fiber preforms and plane substrates

Cover: CO₂ laser processed octagonal & hexagonal preform with Ø 20 mm.

Top: CO₂ laser ablation on silica glass rods with the aim of tailor-made preform machining.

Ambition

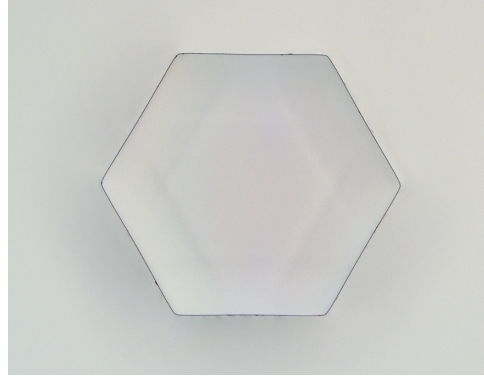
Semi-automatic processing of fused silica material by ablation and polishing with CO₂ laser in one device.



Cross section of CO₂ laser processed and drawn preform with octagonal part.

Application

- Preform processes
- Surface modification
- Flexible generation of different structures



Cross section of CO₂ laser processed and drawn preform with hexagonal part.

Contact

Department
Opto-mechatrical
Components and Systems

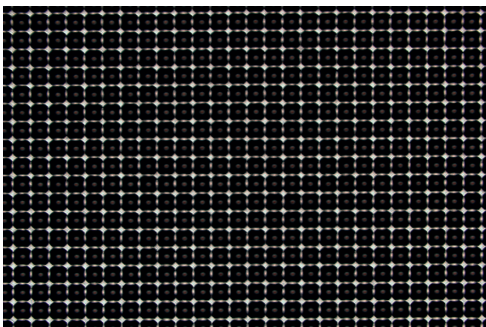
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more info



Surface modification by CO₂ laser processing for stray light suppression.

Technology

- CO₂ laser with 10,6 µm wavelength
- XY- laser scanner with long working distances and additional motorized axis (500 mm)
- Motorized and controlled laser focus positioning
- Additional rotation axis for round glass material
- Cameras for process view and adjustment
- Semi-automatic computer controlled process