

HighTech Competence in Glass

We have special competences in manufacturing of micro- and nano-structured glass. That means we control the complete technological process of manufacturing capillary structures.

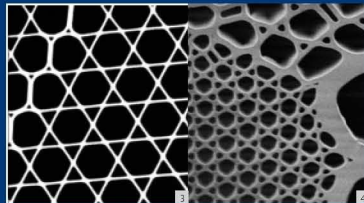
The technology allows to use every type of soft glass also in combination with metallic conductors and realise structures of highest complexity. That opens new perspectives both for innovative glass products like

X-Ray mono-capillary and poly-capillary optics in several configurations

Photonic crystal fibres

Microreactors for chemistry

Capillary structures for biotechnological applications like biochips and nanofilters



Photonic fibres

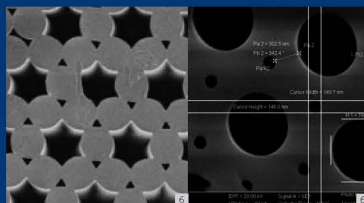
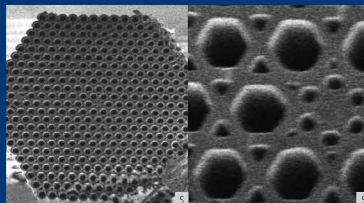
Examples for two-dimensional structures

Outside diameter:	66.1 μm
Central defect diameter:	1.4 μm
Spacing between defect holes:	1.2 μm
spacing between structure holes:	1.9 μm

Different preforms and complex final structures with finest channel diameters down to a few nm demonstrate the high level of technological development

Microreactors for chemistry

Different structure configurations made of various types of glass



X-Ray Capillary Optics

Monocapillary optics

- Different types of mono-capillary optics:
 - cylindrical
 - elliptical
 - parabolical
 It is possible to combine these optics with crystal monochromator
 Different types of housing

Polycapillary lenses

- Different types of polycapillary optics:
 - micro-lenses
 - mini-lenses
 - large lenses
- Small sized channel structure for an efficient transmission of high-energy X-ray photons

„Colour corrected“ lenses having an almost photon energy independent radiation transmission due to a complex structure with channels of different diameters

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