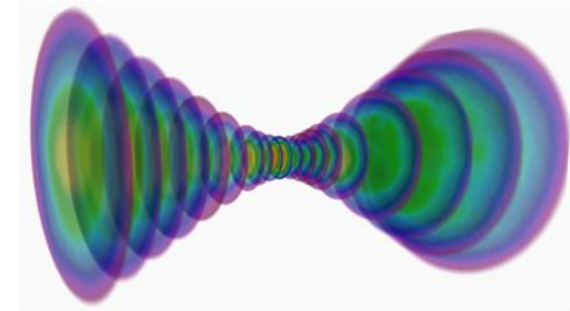


## Motivation and scope of this work

The ceramic manufacturing technique has a great potential in the production of laser active material that are difficult to produce with standard crystal growth techniques (such as the „Czochralski-technique“).

Yet, pores in the range of 0,5-5 $\mu$ m can occur in ceramic laser materials.

The scope of this work is to determine the pore distribution and to evaluate its influence on the laser performance of ceramic laser media.



Laserbeam created from a laser ceramic

## Work packages

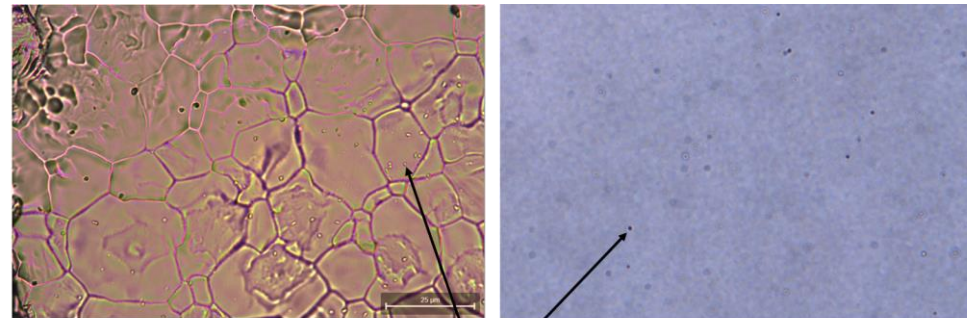
Evaluation of the pore distribution

- ◆ 3D optical microscopy
- ◆ Matlab-based image processing

Laser experiments

- ◆ Power characteristic, thermal imaging and spectrometry in continuous-wave multimode laser operation

Data treatment



At the surface

In the bulk

Pore

## Further inform / contact

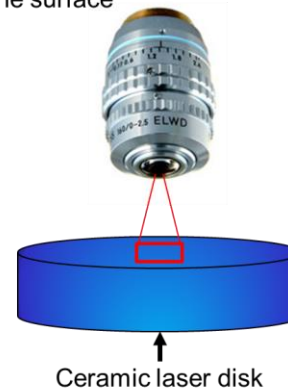
Duration: 12 Months

Start: from February 2022

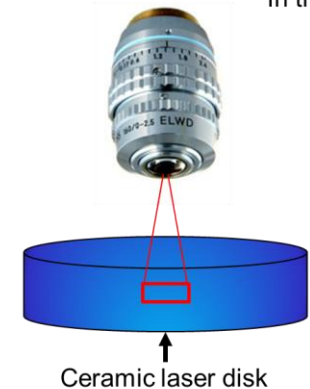
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Ceramic laser disk



Ceramic laser disk