

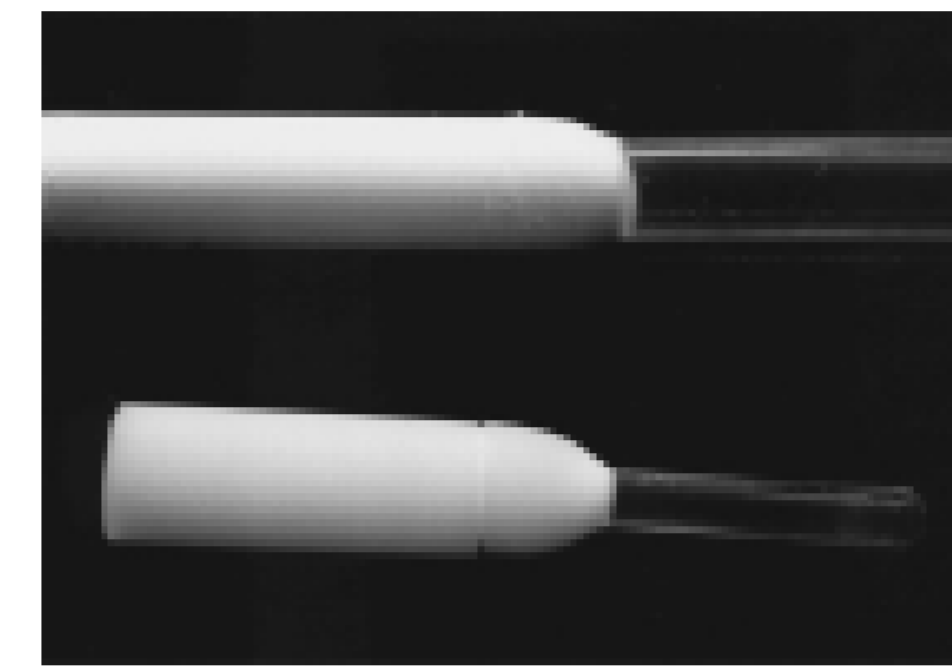
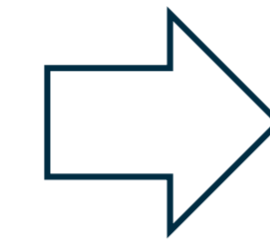
The Structural and Functional Ceramics Group of Saarland University focuses on the processing and characterization of new high-performance ceramic and glass materials based on selective nano-, meso- and microscopic functionalized particle interfaces. These research activities are mostly supplemented by tailoring colloidal nanoparticle dispersions, shaping of nanoparticles in external electrical fields and modeling of field assisted shaped nanoparticles and their respective sintering.

[For more information](#)

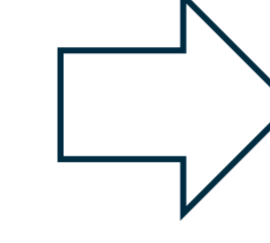
Exemplary Nanoparticle Processing Routes



nano-
dispersion



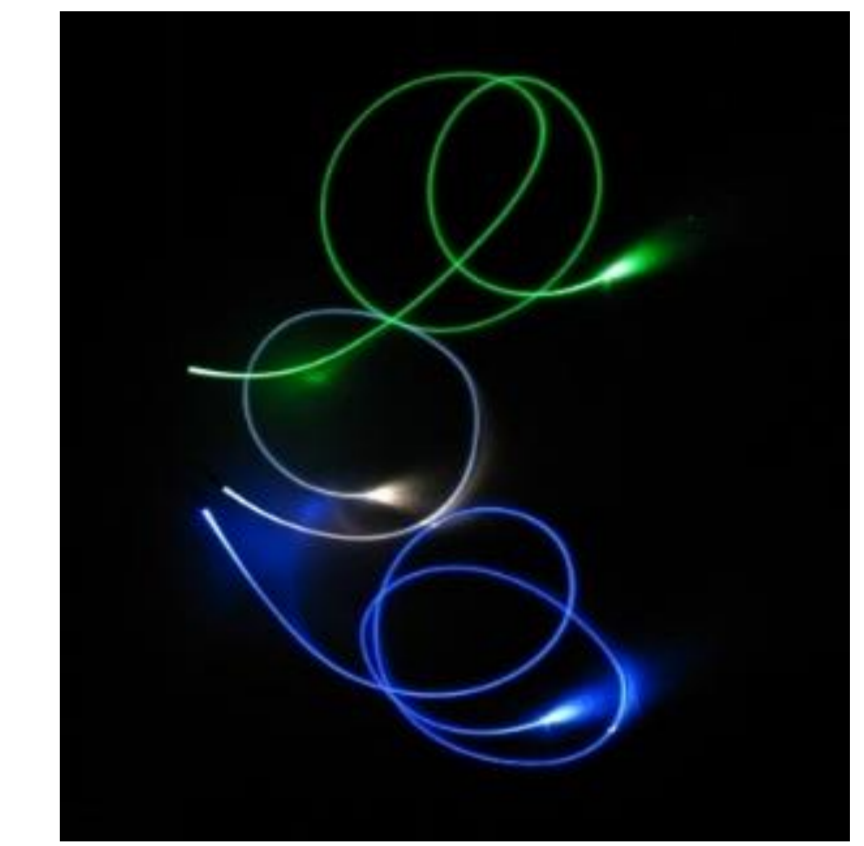
shaped and sintered
optical glass



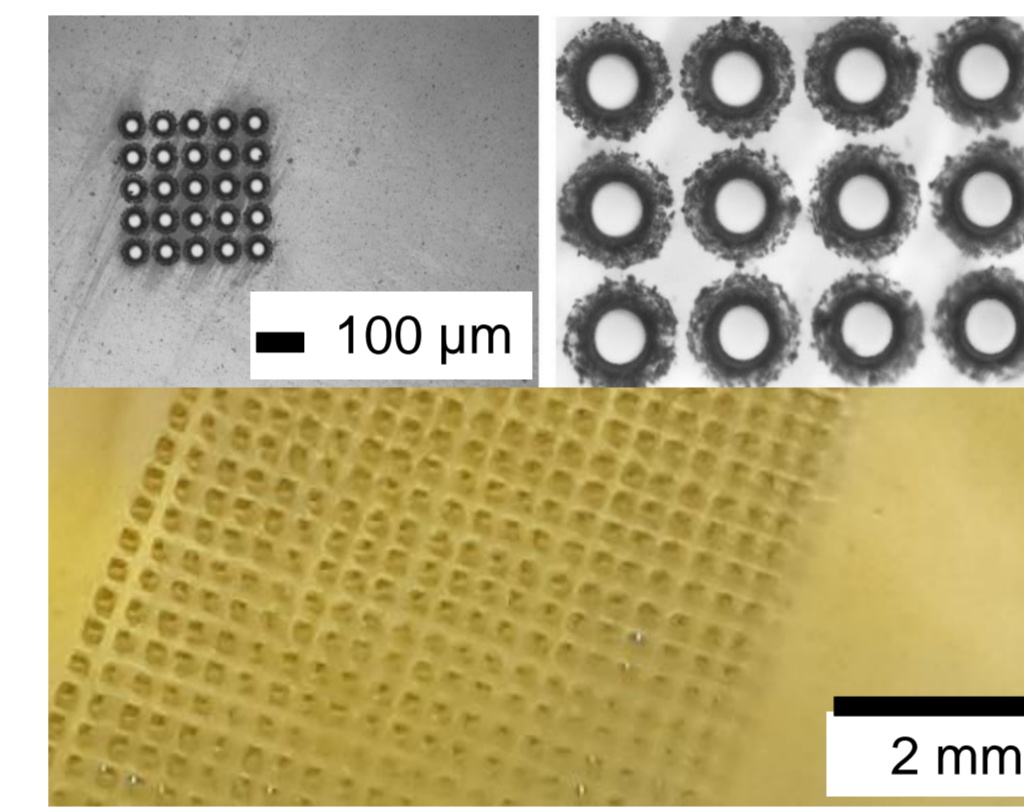
glass fiber preform



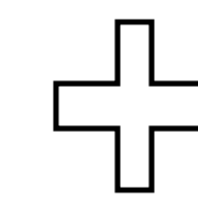
Functionality



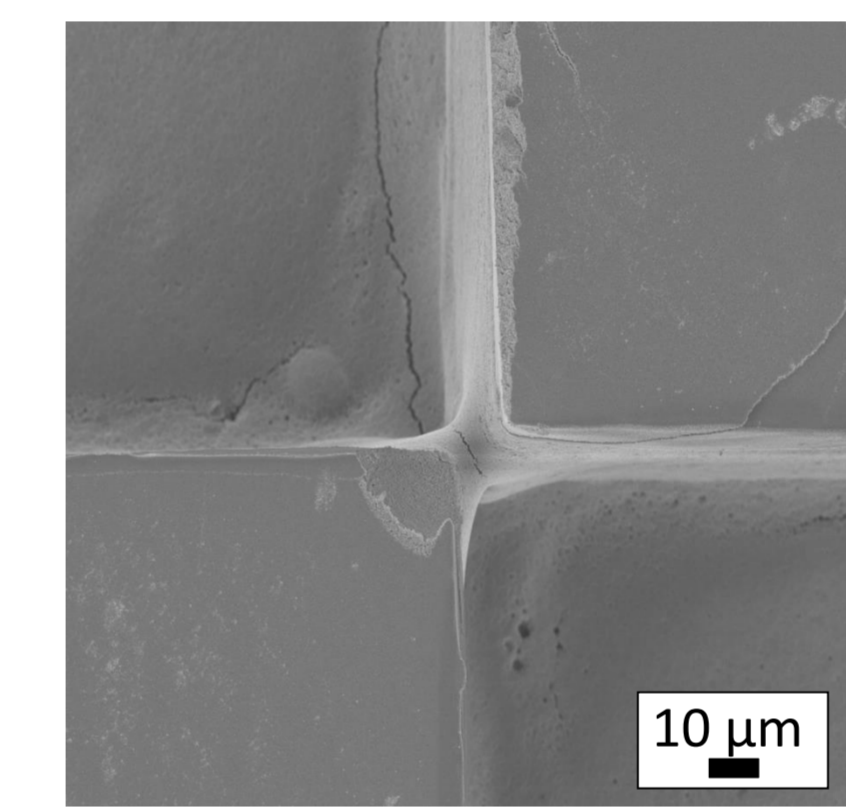
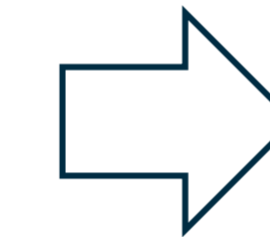
advanced optical fibers



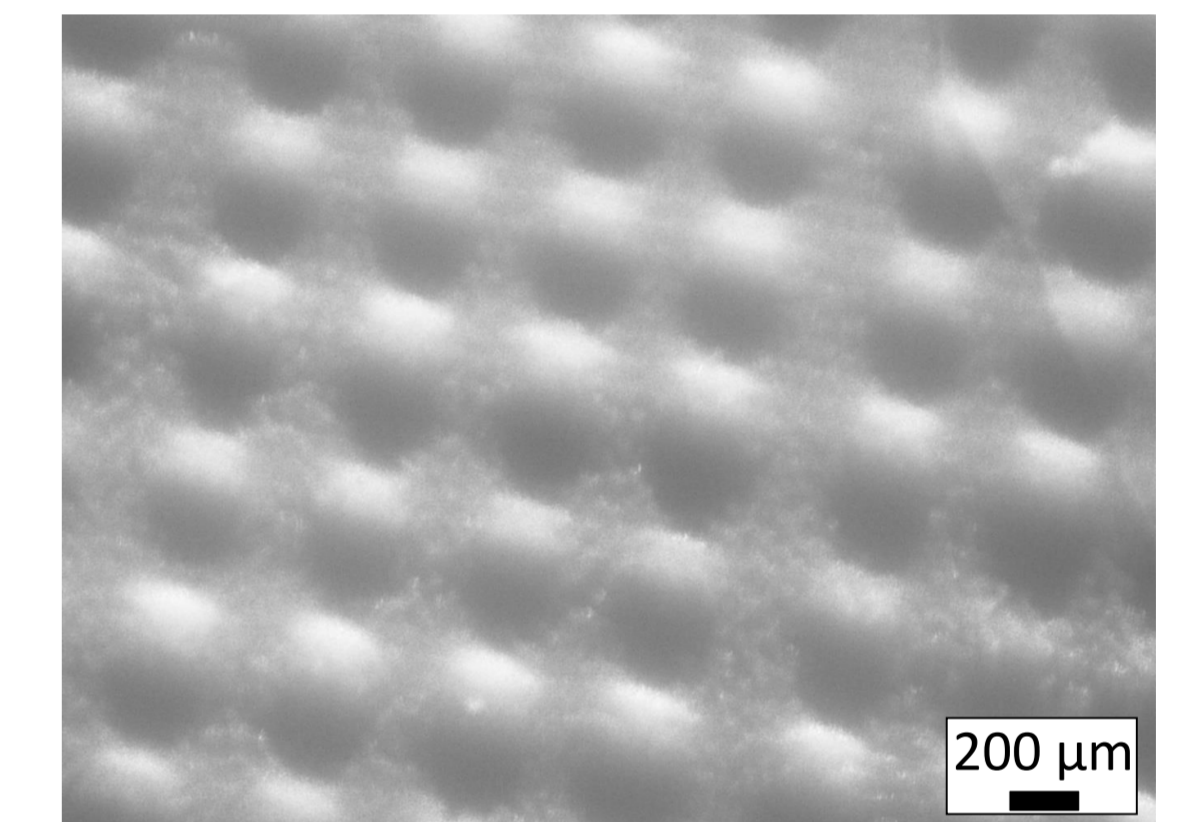
polymer templates
(laser, e-beam, lithography, etc.)



nano-
dispersion



replica molding
and sintering



advanced nano-/micro
structured glasses / ceramics

EEIGM Teachers/Researchers involved



Daniela Foetz

Expertise : Silicate ceramics and cellular refractories

Teaching : Powder technology, nanoparticle dispersions, processing, shaping and characterization of ceramic materials



Guido Falk

Expertise : Advanced processing and characterization of glass and ceramic materials

Teaching : Fundamentals and applications of glass and ceramic materials