Hochschule Aalen

Nanoimprinting lithography

Goal and your tasks:

Nanoimprinting lithography offers the possibility of replicating, i.e. multiplying, structures on a nanometer scale. First, a so-called master is created (e.g. via additive manufacturing with nanometer resolution or using technologies such as “focused ion beam”). A stamp is then molded from this master. This stamp is then used to transfer the original structure of the master to other components.
In cooperation with an industrial partner, different structures on a nanometer scale and their transferability to curved substrates are to be investigated with the aim of enabling new optical components.
The tasks would be:

- Familiarization with nanoimprinting lithography
- Realization of master structures using an optical setup
- Molding of a stamp and replication of the structure using different materials
- Scientific processing and evaluation of the results

Details of the topic can be clarified in a personal discussion.
(see also www.hs-aalen.de/zot)

Supervisor: Prof. Dr. Andreas Heinrich

E-Mail: Andreas.Heinrich@hs-aalen.de