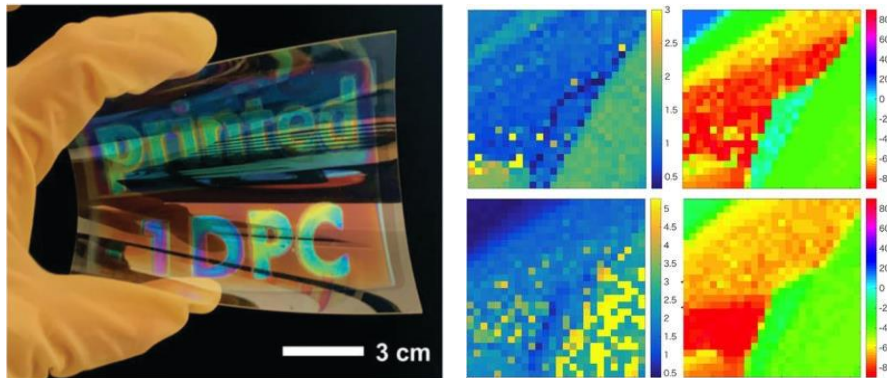


Master Thesis / HIWI

Spectral mapping in Bragg mirrors



Motivation

Bragg mirrors are widely applied in optical and photonic devices due to their capability of light management. Inkjet printing, a straightforward, versatile, low-cost, and high-throughput technique, which is suitable for the fabrication of the Bragg mirrors. Characterization the spectral property of the printed Bragg mirror is important in the producing process. By mapping over the entire mirror, one could gather the necessary spectral information for printing quality control and following designs.

Task

The tasks will focus on spectral mapping of the printed Bragg mirrors:

- Designing, building, and programming a 3D scanning stage
- Integrating a spectrometer into the scanning stage
- Reconstructing the spectral information in software.

Prerequisites

Prerequisite for the work is independent experimental work, team spirit as well as interest in innovations. Masters students studying Optics and Photonics, Physics, Electrical engineering or related fields are proper candidates for the work. Experience and knowledge of UV/VIS/NIR spectrometer are desired but not necessary.

Research areas

Optics & Photonics,
Electrical
Engineering,
Physics,
or related fields

Type of work

Experimental

Location

LTI
(KIT, Campus South)

Starting date

As soon as possible

Contact person

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