

Research data for

Polarization and frequency multiplexed terahertz meta-holography

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This research data description should be read and understood in the context of the corresponding manuscript published 2017 in **Advanced Optical Materials**. The figure numbers correspond to the figure numbers of the manuscript.

Data file: data_of_Fig1.txt

Description: Simulated conversion from incident x -polarization to transmitted y -polarization in terms of intensity in arbitrary units for the four different sub-pixel units of the meta-hologram as a function of frequency f . The data is the same as shown in Fig. 1 of the corresponding manuscript.

Folder Figure 3: Fig3a.png, ..., Fig. 3h.png image files

Description: Simulated (a-d) and measured (e-h) holograms on the holographic image plane at $z = 5$ mm. The images show maps of the y -polarized detected intensity in arbitrary units for x -polarized illumination as described in the manuscript. The simulations are based on Rayleigh-Sommerfeld diffraction theory. The measurements were taken by fiber-based near-field scanning terahertz microscopy.

Folder Figure 4: Fig4a.png, ..., Fig. 4j.png image files

Description: Measured holograms on the holographic image plane at $z = 5$ mm at 0.6 THz (a-e) and 0.8 THz (f-j) for different orientations of the meta-hologram. The meta-hologram was rotated around the z -axis in steps of 11.25° . The images show maps of the y -polarized detected intensity in arbitrary units for x -polarized illumination as described in the manuscript. The measurements were taken by fiber-based near-field scanning terahertz microscopy.