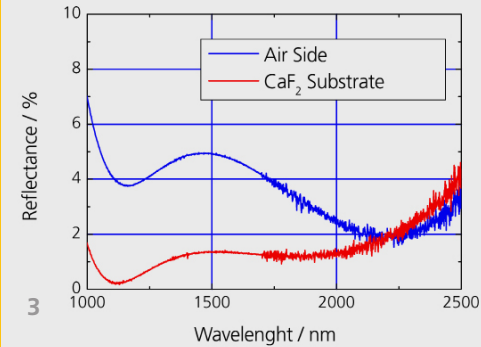


1



2



3

1 Reflectivity curves of reflectivity-reduced chromium layer – air side and glass side.

2 Structured chromium coating on  $\text{CaF}_2$  Lens.

3 Reflectivity curves of reflectivity-reduced chromium layer for the near infrared spectral range /  $\text{CaF}_2$  substrate.

## STRUCTURABLE COATINGS FOR MICROOPTICAL APPLICATIONS

### Motivation

The manufacture of scales, benchmarks, reticles, apertures and calibration standards is a very important area of practical optics. These microstructures are commonly applied in industrial image processing, medical engineering, microscopy, sports and military optics, metrology and in photographic cameras. New applications require structurable coatings with new or enhanced optical or mechanical properties.

### Competencies

- Deposition of structurable chromium coatings
- Reflectivity-reduced chromium coatings for single wavelengths from UV- to IR spectral range
- Reflectivity-reduced chromium coatings for various broad wavelength ranges
- Coating deposition onto photoresists

- Coatable substrate size: up to 500 x 500 x 100 mm<sup>3</sup>
- Deposition onto various substrate materials

### Our offer

- Development of new or enhanced structurable optical coatings
- Adaption of coating properties to requirements of various applications
- Characterization and testing of new coating materials
- Prototype coatings

### Fraunhofer Institute for Applied Optics and Precision Engineering IOF

Albert-Einstein-Straße 7  
07745 Jena

#### Director

Prof. Dr. Andreas Tünnermann

#### Head of Business Unit Functional Optical Surfaces and Layers

Dr. Sven Schröder

#### Contact

Dr. Stefan Schwinde  
Phone +49 3641 807-297  
stefan.schwinde@iof.fraunhofer.de

[www.iof.fraunhofer.de](http://www.iof.fraunhofer.de)