BROADBAND-AR-COATINGS
SUITABLE FOR OBLIQUE LIGHT INCIDENCE

Motivation
Modern camera systems and other optical components contain curved lenses which need to exhibit a low reflectivity. However, common interference coatings do not allow the realization of antireflection (AR) properties as good as required on the inclined planes of curved lenses.

Competences
- Low index organic nanostructured layers as topmost layers of AR stacks
- Tailored coating designs in dependence on spectral range, light incidence angle and radius of lens curvature
- Preparation of homogeneous inorganic layers and organic nanostructures in a closed vacuum process

AR gradient coatings
- Gradually decreasing refractive index from the substrate to the ambient medium
- Especially suitable for lenses with considerable curvature
- Tolerant for incidence angles up to 60°
- Example: 400–750 nm, 0°–60°, R < 1%

AR interference coatings
- Combinations of interference stacks and organic nanostructures
- Especially suitable for extremely broad spectral range
- Example: 400–1600 nm, 0°, R < 0.5%

Other properties
- High temperature stability
- Adjustable wettability
- Mechanically sensitive: recommended only for internal or protected surfaces

Data sheet Online-PDF (3MB)