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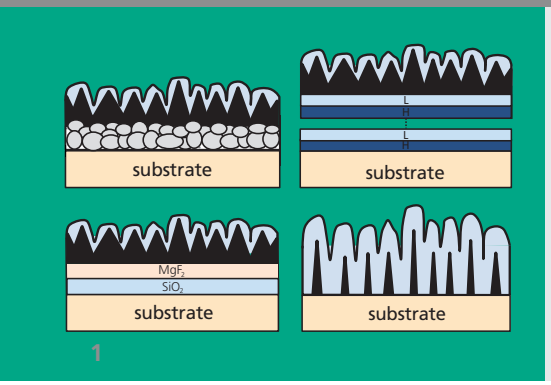

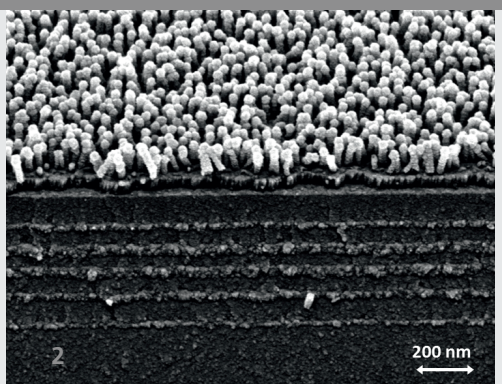

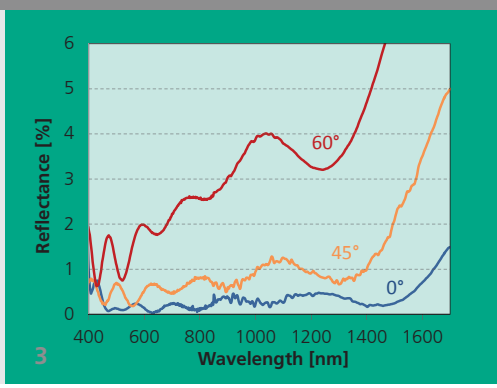

1 *Schemes for advanced broadband AR coatings on glass.*
2 *SEM image of an AR coating with a melamine nanostructured layer as the last layer.*
3 *Reflectance spectra (light incidence 0°, 45°, and 60°) of a B270 glass coated with an AR-system including a melamine nanostructure.*

Data sheet *Online-PDF (3MB)*

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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