

OPTICAL COATINGS AT RHYSEARCH

A KEY TO NEW APPLICATIONS

APPLIED
RESEARCH &
DEVELOPMENT

NETWORK

INNOVATION
PROCESSES



THE IMPORTANCE OF OPTICAL COATINGS

Optical Coatings is a key enabling technology for many products and technologies in different areas of life

Optical coatings belong to the key technology for improvements in upcoming applications such as laser technology, additive manufacturing and medical technology.

A concrete example is the process to cut glass for smartphones with intense laser pulses. For that purpose, the coatings of the optical components must be able to withstand the strong punctual exposure to laser beams.

What are optical coatings?

Optical coatings consist of a stack of very thin films with alternating materials properties. Due to the specified thickness of each layer, the optical properties are generated for each color individually. The total thickness of the layer stack is in a range of one up to many micrometers.

APPLIED R&D

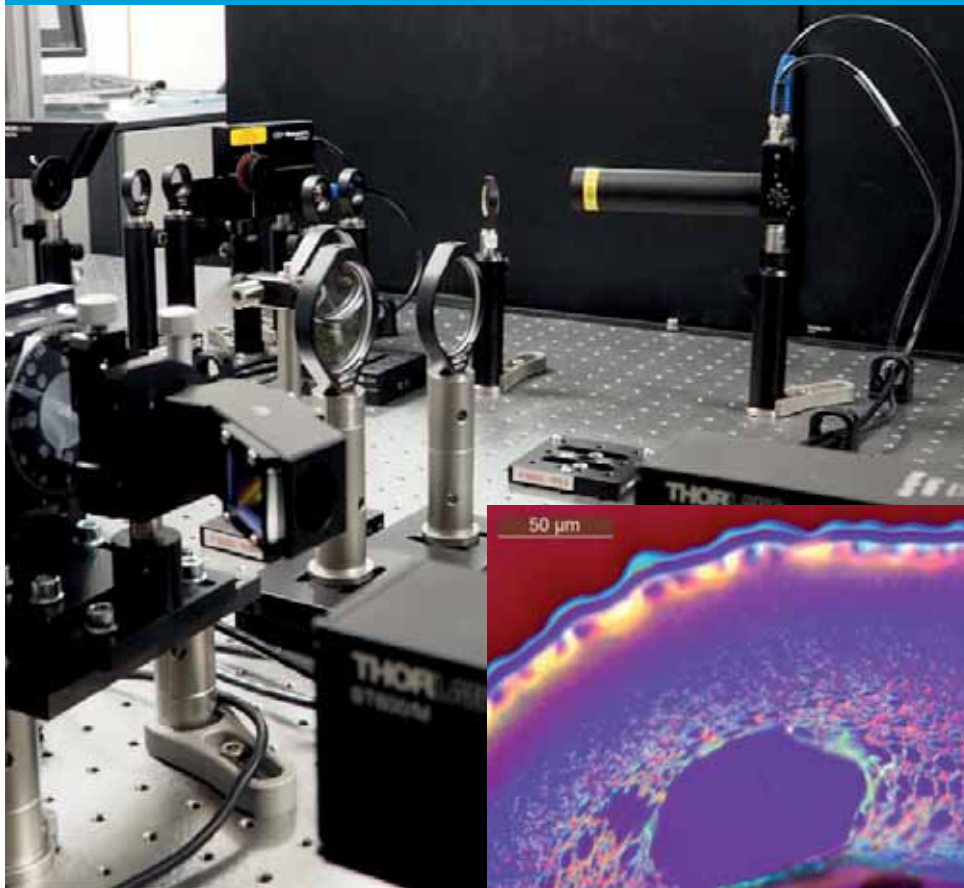
RESEARCH FOCUS OPTICAL COATINGS

Applied Research and Development

- Coatings for High-End- and Laser Applications
- New Coating Material
- Investigation and improvements of thin film properties upon various treatments

Research and Testing

- Dielectric Coatings by Dual Ion Beam Sputtering (DIBS)
- Laser-Induced-Damage Threshold LIDT (ISO Norm) and also under different environmental conditions
- Cavity Ring Down CRD (ISO Norm)



“UNDERSTANDING COATINGS
IS KEY TO NEW APPLICATIONS.”

OPTICAL COATINGS AT RHYSEARCH

Optical Coatings is one of three research topics of RhySearch, the center of research and innovation in the Alpine Rhine Valley.

Our experienced researchers test and develop thin films and coating systems. For analyses we use different methods such as LIDT or CRD. To gain new surfaces with superior properties we deposit complex optical coatings using Ion-Beam-Sputtering.

Our specific aim is the gain of knowledge on thin films and coating systems in order to foster applied research and innovation in companies working in the field of coatings or laser technology. RhySearch therefore acts as a technology cluster with industries and research and university institutions.

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