

# Newsletter

Advanced Solutions for Optics, Opto-Electronics, Lithography and Science!

**SCHOTT**  
glass made of ideas

Vol. VI, No. 1, January 2011

## TECHNICAL INFORMATION & PRODUCT NEWS

Re-launch of BG50 and BG55 Optical Filter Glasses

Homogeneity Measurements with Highest Precision

CONTURAN® with Chemical Hardening

Wafer – a Preferred Product for Electronic & Biotech

## VOICE OF THE CUSTOMER & INDUSTRY TRENDS

Sapphire Meets Specification

Significant Price Increase of Rare Earths

## REGIONAL & CLOSE UP

SCHOTT at Photonics West 2011

## UPCOMING SCHOTT EVENTS

## Page Re-launch of BG50 and BG55 Optical Filter Glasses

1

1

2

2

3

3

4

5



SCHOTT is pleased to announce to our customers the re-launch of BG50 and BG55 optical filter glass. Both glasses can be used for IR cut filters. The product flyers have been

updated and can be found on our website: [www.schott.com](http://www.schott.com). The spectra transmission is included in SCHOTT's filter calculation to be found on our website as well. With BG50 and BG55 glass types, SCHOTT offers 55 different optical filter glasses (absorption filters) for nearly all applications from the UV via VIS to IR light spectrum.

## Homogeneity Measurements with Highest Precision

In order to further improve our customer service, SCHOTT has invested in the extension of its metrology equipment and competencies in this field. SCHOTT is now able to measure refractive index homogeneities on two different "Zeiss Direct 100 interferometers", each fitted to the size of individual blocks. The one interferometer with a 20" aperture will now be primarily used for big blocks and

will be able to do measurements with a clear aperture of 500 mm. The size of individual blocks, however, can reach up to 1500 mm diameter for measurements on that tool. The newly installed interferometer will be used for smaller parts thereby enabling precise measurements for clear apertures up to 300 mm with a reproducibility 2 sigma of up to 10 nanometers.

## CONTURAN® with Chemical Hardening

Many applications ask for thin but also strong cover glasses for displays. Especially for industrial applications high resistance to fracture is necessary to protect the display. SCHOTT developed a chemical hardening process which is adapted to CONTURAN® antireflective coated glass based on soda-lime float glass. The chemical hardening process is perfect for smaller and thin glass up to a glass thick-

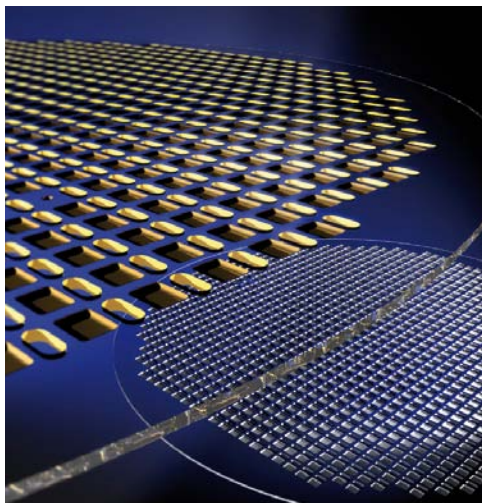
ness of 3 mm. For these products, chemical hardening provides even better results than thermal toughening. With the chemically hardened CONTURAN® you get a cover glass which provides perfect view to the display and safe protection as well. If you are interested, write to us:

[info.optics@schott.com](mailto:info.optics@schott.com)

[BACK TO INDEX](#)

## Wafer - a Preferred Product for Electronic & Biotech

SCHOTT Advanced Optics offers a broad range of products for applications in Electronic & Biotech.



One of these products are wafers made of different materials. SCHOTT has the

capability to develop various materials inhouse, to process different glass types and to provide wafers reflecting your individual request.

BOROFLOAT® 33 borosilicate glass, synthetic fused silica, AF32® eco aluminosilicate glass, D263® T eco borosilicate glass, B270® low-iron crown glass are some of the glasses being provided in various shapes and different processing stages (e.g. powdered blasted, ultra sonic lapped). With clean room facilities and expertise in polishing, structuring, and metrology, SCHOTT Advanced Optics is well prepared and equipped to meet your needs and challenges – please contact us for your individual request:

[info.optics@schott.com](mailto:info.optics@schott.com)

[BACK TO INDEX](#)

## Sapphire Meets Specification

SCHOTT Advanced Optics is now offering sapphire material in big dimensions for optical applications. The focus is on advanced imaging, sensing and security.

We have recently been qualified by a customer for large sapphire windows (up to 300 mm in diameter) for use in security applications. The range of pro-

cess quality extends from commercial to ultra precision. Besides that, SCHOTT offers a wide range of coatings optimized for sapphire from visible (ultra hard AR) to IR (3–5  $\mu\text{m}$ ). Please contact us with any specific questions:

[info.optics@schott.com](mailto:info.optics@schott.com)

[BACK TO INDEX](#)



*Different sapphire products of SCHOTT*

## Significant Price Increase of Rare Earths

The market recovery in the global economy and growing demand for electronic products has led to major price increases in the last year for important raw materials that are also used in melting optical glasses.

However, main reason for the significant price increase is the reduced availability of rare earths, an important component for high-index optical glasses.

China produces approx. 95% of the global supply and announced in the summer 2010 the reduction of the amount available for export and in addition the introduction of export license fees. These changes have already caused a shortage in supply and sky-rocketing prices for

rare earths in 2010. Market prices for metals such as Tantalum and Niobium have increased by 80–100% in the last 12 months, the price of Lanthanum rose even more. Also the price for Platinum, a precious metal used as a refractory material, has surged by 30% in the last year.

Of course, SCHOTT Advanced Optics is focusing its efforts to securing a stable supply of these raw materials and is looking for innovative ways in the production to minimize the cost increase. However, it can already be seen today, that this explosion of raw material prices can not be compensated completely.

[BACK TO INDEX](#)

## SCHOTT at Photonics West 2011

Once again SCHOTT will be one of the exhibitors at this year's BiOs and Photonics West. Besides presenting products and news at the booth, experts from SCHOTT in Germany and the United States

will be conducting product demos during both shows and a short course will be held. Please visit us at BiOs, booth 8414, at Photonics West, booth 1601 (south hall) and listen to our product demos.

### Product Spotlight Demonstrations:

**Saturday, January 22nd: 12:30 pm – South Hall A**

*High Performance Optical Components from SCHOTT*  
Charles Bernheim, SCHOTT AG

**Saturday, January 22nd: 2:30 pm – South Hall A**

*Novel Interference Filters for Bio-Photonic & Analytical Applications*  
Dr. Steffen Reichel, SCHOTT AG

**Tuesday, January 25th: 10:30 am – South Hall C**

*Glasses from SCHOTT with "Ultra High Transmittance"*  
Charles Bernheim, SCHOTT AG

**Tuesday, January 25th: 11:30 am – South Hall A**

*High Performance Coated Components from SCHOTT*  
Dr. Angela Hohl-AbiChedid, SCHOTT North America, Inc.  
Dr. Steffen Reichel, SCHOTT AG

**Wednesday, January 26th: 3:30 pm – South Hall C**

*Progress in ZERODUR® Light Weighting*  
Dr. Thomas Westerhoff, SCHOTT AG

### Short Course:

**Tuesday, January 25th: 8:30 am – 12:30 pm**

*SC1013: Choosing the Correct Optical Filter for your Application*  
Dr. Steffen Reichel, SCHOTT AG

[BACK TO INDEX](#)

## Upcoming SCHOTT Events

*Here we are listing the events where "Advanced Optics" proactively attends as an exhibitor, speaker or has an active part such as "chair of technical conferences," etc.*

SPIE Defense, Security & Sensing 2011 Exhibition – Booth 511  
Orlando, Florida – April 26–28, 2011

CLEO 2011 – Booth 1514  
Baltimore, Maryland – May 3–5, 2011

SPIE Optifab 2011 – Booth 601  
Rochester, NY – May 10–12, 2011

Nanotech Conference & Expo 2011  
Boston, MA – June 13–16, 2011

LASER – World of Photonics - Booth B2.308  
München – May 23–26, 2011

[BACK TO INDEX](#)