



MATERION

// BALZERS OPTICS

BrightSlide™ D

Fluorescence Enhancing Slide

Fluorescence systems (e.g. microscopes) are today widely used in the life science research. For many applications an increased sensitivity compared to existing glass slides is required. The BrightSlide™ technology uses a proprietary dielectric coating to significantly enhance the signal intensity of fluorescent molecules from the surface. It can be read out with almost any system that illuminates and detects from the top. The technology makes use of only optical principles and substitutes conventional glass substrates.

The BrightSlide™ D (Dielectric) has a bare SiO₂ surface.



Benefits

- Better signal-to-noise ratio
- Higher sensitivity
- Less sample material can be used
- More genes can be detected
- Existing instrument platform can be used
- Purely optical amplification of fluorescence signal
- Dielectric, high quality SiO₂ surface ready to apply a biofunctional coating (various biofunctional coatings provided by Materion Balzers Optics on request)

Applications

- Universal detection platform for fluorescence detection on planar surfaces, e.g. fluorescence detection of ultra thin samples
- Differential gene expression using Cy3 and Cy5 labels simultaneously
- Gene expression using Cy3 or Cy5 labels independently

Technical Data

Substrate material

SCHOTT D263™ T eco, other materials on request

Substrate dimensions

75 mm x 25 mm x 1.1 mm, other dimensions on request

Active area 63 mm x 22 mm

Fluorescence enhancement

optimized for one to three customer specific dyes on one slide
Both polarizations (s- and p-polarization) can be used for excitation and emission

0° - 3° angle of incidence for excitation light

Ultralow fluorescence background

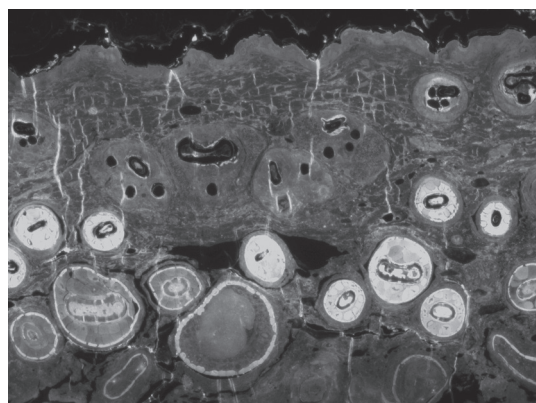
Ultraclean SiO₂ surface

Laser scribed, durable and chemically resistant label with a unique serial number or bar code

Suitable for most of commercially available fluorescence microscopes with illumination and detection from the top

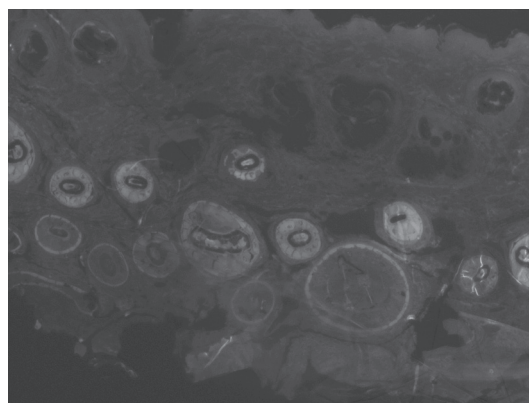
Stringent batch to batch reproducibility

Packed under clean-room (class 100) conditions



Enhancement of the fluorescence on BrightSlide™

Image of 150nm thick section of biological material using BrightSlide™



Fluorescence signal on standard glass slide

Image of 150nm thick section of biological material using standard glass slide