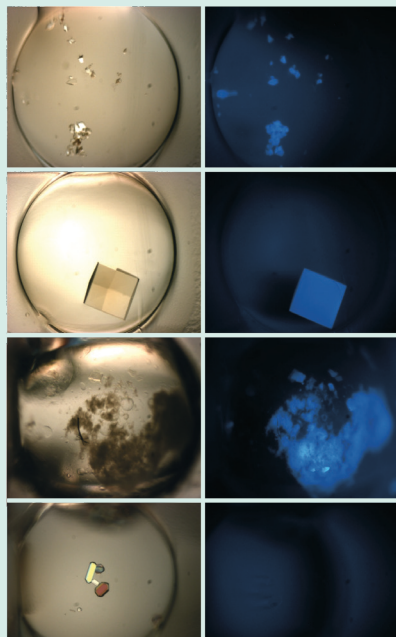


## XtalLight™ 100

### IDENTIFICATION OF BIOMOLECULAR CRYSTALS

#### Intrinsic Protein Fluorescence Imaging



bright light

UV

XtalLight 100 is a light source for combination with your lab microscope to identify biomolecular crystals by intrinsic fluorescence (100/100C) or trace label fluorescence (100C).

#### INTRINSIC FLUORESCENCE IMAGING

XtalLight 100 and XtalLight 100C allows intrinsic fluorescence imaging of protein crystals by illuminating with a broad UV spectrum  $\geq 280$  nm, for efficient fluorescence excitation of tryptophane, reducing the influence of the used covering material and quenching effects.

#### TRACE FLUORESCENCE IMAGING

XtalLight 100C is equipped with a coloured light source, providing a trace fluorescence imaging option, a widely used technique for the identification and comparison of biological materials.

#### SPEEDING UP YOUR STRUCTURE DETERMINATION PROCESS

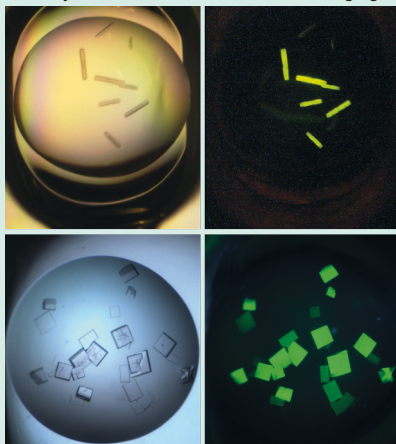
The XtalLight 100(C) can be connected to a standard microscope with a CCD camera. In combination with our imaging package you have a manually or remotely operated plate imager to identify your biomolecule crystals.

The XtalLight 100(C) can be easily attached to the automated imaging system SpectroLight 600 or a broad variety of available microscopes.

#### MINIMUM RISK FOR YOUR CRYSTALS DURING INSPECTION

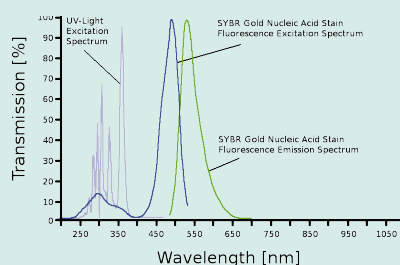
Remotely operated shutters and a trigger signal for the CCD camera allow short UV exposure times to protect crystals against photo-chemical damage.

#### Carboxyrhodamine Trace Fluorescence Imaging

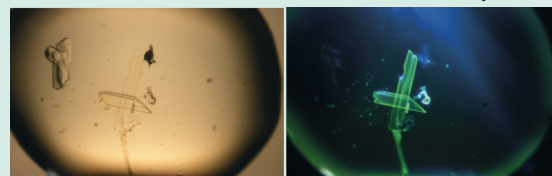


bright light

green light



#### Fluorescence of SYBR® GOLD Nucleic Acid Stained RNA Crystals



UV light source	<p>Mercury arc lamp with 120 W</p> <ul style="list-style-type: none"> <li>✓ Lamp life time &gt; 2,000 h</li> <li>✓ Motorized shutter and intensity control</li> </ul>
Green light source	<p>Green LED ( 515 - 535 nm ), 150 lm</p> <ul style="list-style-type: none"> <li>✓ LED life time &gt; 50,000 h</li> <li>✓ Motorised intensity control</li> <li>□ other wavelengths available (optional)</li> </ul>
Filter	<p>Motorized filter change up to three positions:</p> <ul style="list-style-type: none"> <li>✓ Pos 1: Shortpass 385 nm</li> <li>✓ Pos 2: Shortpass 325 nm</li> <li>□ Pos 3: other wavelength (optional)</li> </ul>
Control	<p>Control of UV/green light intensity, filter setting and shutter</p> <ul style="list-style-type: none"> <li>✓ Manually</li> <li>✓ Software control from PC over ethernet</li> </ul> <p>XtalLight 100C remote software runs on □ Linux □ Windows □MAC</p>
Light guides	<p>Light guide for UV light 1.5 mm core diameter</p> <ul style="list-style-type: none"> <li>✓ Length 1.5 m</li> <li>□ Customized length (optional)</li> </ul> <p>Light guide for green light 1.5 mm core diameter</p> <ul style="list-style-type: none"> <li>✓ Length 1.5 m</li> <li>□ Customized length (optional)</li> </ul>
UV/green light optics	<p>Focussing optics for directing UV/green light onto the sample</p> <ul style="list-style-type: none"> <li>✓ Focal length 20 mm with built-in blocking filter</li> </ul>
Hardware	<p>Table-top case</p> <ul style="list-style-type: none"> <li>✓ Portable unit</li> <li>✓ 400 mm x 300 mm x 200 mm (LxWxH)</li> <li>✓ Weight: approx. 12 kg</li> <li>✓ Power consumption: 90 to 264 V, 200 W</li> </ul>
Imaging package (optional)	<p>Computer</p> <ul style="list-style-type: none"> <li>✓ Mini PC attached to monitor</li> <li>✓ Monitor 22 inch for full camera image display</li> <li>✓ Operation system: Linux</li> </ul> <p>Colour CCD camera</p> <p>Camera for adaptation to a microscope</p> <ul style="list-style-type: none"> <li>✓ 1600 x 1200 pixels</li> </ul> <p>Imaging SW</p> <ul style="list-style-type: none"> <li>✓ Live display of camera image</li> <li>✓ Control of camera settings for UV and coloured light</li> <li>✓ Easy acquisition of UV images, green light images and combinations</li> <li>✓ Storage and retrieval of images in a data base</li> <li>✓ Short UV exposure times to protect crystals against damage</li> </ul>
Positioning and protection	<ul style="list-style-type: none"> <li>✓ Manual Stage for positioning of optics</li> <li>□ Manual Stage for positioning of UV protection shield (optional)</li> </ul>
Adaptable microscopes	<p>Adaptable to several microscopes depending on working distance and set-up</p>
Suitable plates and sealing films	<p>Crystallization plates with low intrinsic fluorescence (low birefringence) and UV suitable sealing films</p>

