

From Eye to Insight



Cutting of actin stress filaments labeled with mEOS in COS-7 cells.  
Courtesy: Dr. Ralf Jacob, Philipps University of Marburg, Marburg, Germany

Illuminate. Irradiate. Obliterate.

## Pulsed Laser Unit – DMi8 S

Whether you need to gently irradiate samples for DNA damage and uncaging, increase power levels for sub-cellular organelle perturbation and disruption, or cut and ablate through whole tissues, the Pulsed Laser Unit offers an all-in-one solution. Add this UV laser unit to the Infinity Scanner for precise targeting within the focal plane of your sample.

The DMi8 S system also enables users to combine the Pulsed Laser Unit (PLU) with fiber coupled laser sources for a flexible, upgradable solution offering optogenetics, photobleaching and photoactivating on one universal system.

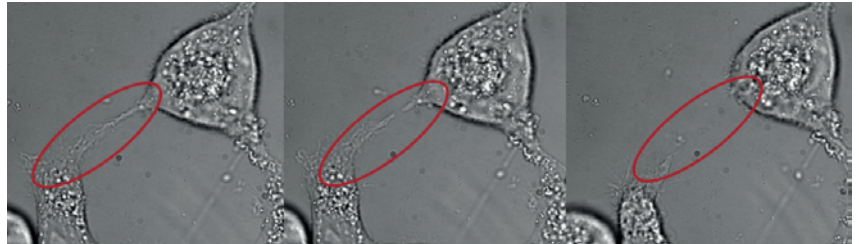
- **Scalpel to sledgehammer** – all-in-one solution for gentle irradiation to whole tissue ablation
- **Fully integrated into DMi8 S** – Intelligent automation eliminates risk of damaging optical components.
- **Customizable** – record and cut in real-time or combine with multi-dimensional imaging

### Typical Applications:

- Cutting
- Ablation
- DNA damage
- Uncaging
- Substrate marking



# DMi8 S – Pulsed Laser Unit (PLU)



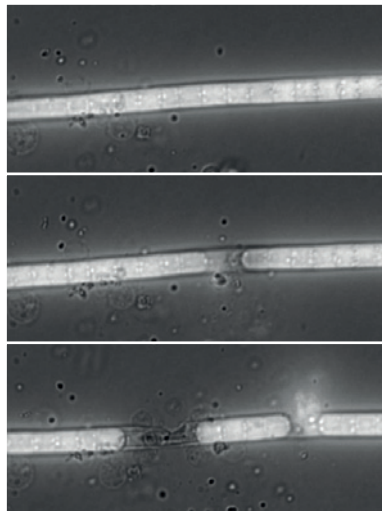
## Control:

Timelapse imaging of cutting of a cell connection between COS-7 cells.

Courtesy: Dr. Ralph Jacob, Philipps University of Marburg, Marburg, Germany

## Key Specifications:

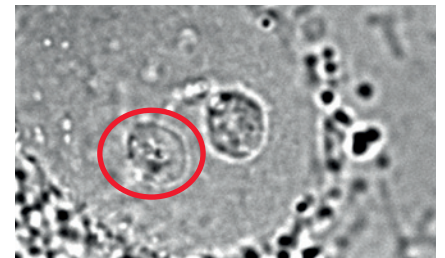
- 355 nm pulsed laser
- Pulse energy >15  $\mu$ J
- Peak power >13 kW
- Pulse Rep rate 2.5 kHz
- Pulse Width <1.1 ns
- Direct coupling to Infinity Scanner FS
- Laser safety Class 1



## Power:

Single pulse ablation of filamentous algae.

Courtesy: Dr. Werner Wittke, Germany



## Precision:

Bright field imaging of holes drilled in the nucleolus of a COS-7 Cell.

Courtesy: Dr. Ralph Jacob, Philipps University of Marburg, Marburg, Germany

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