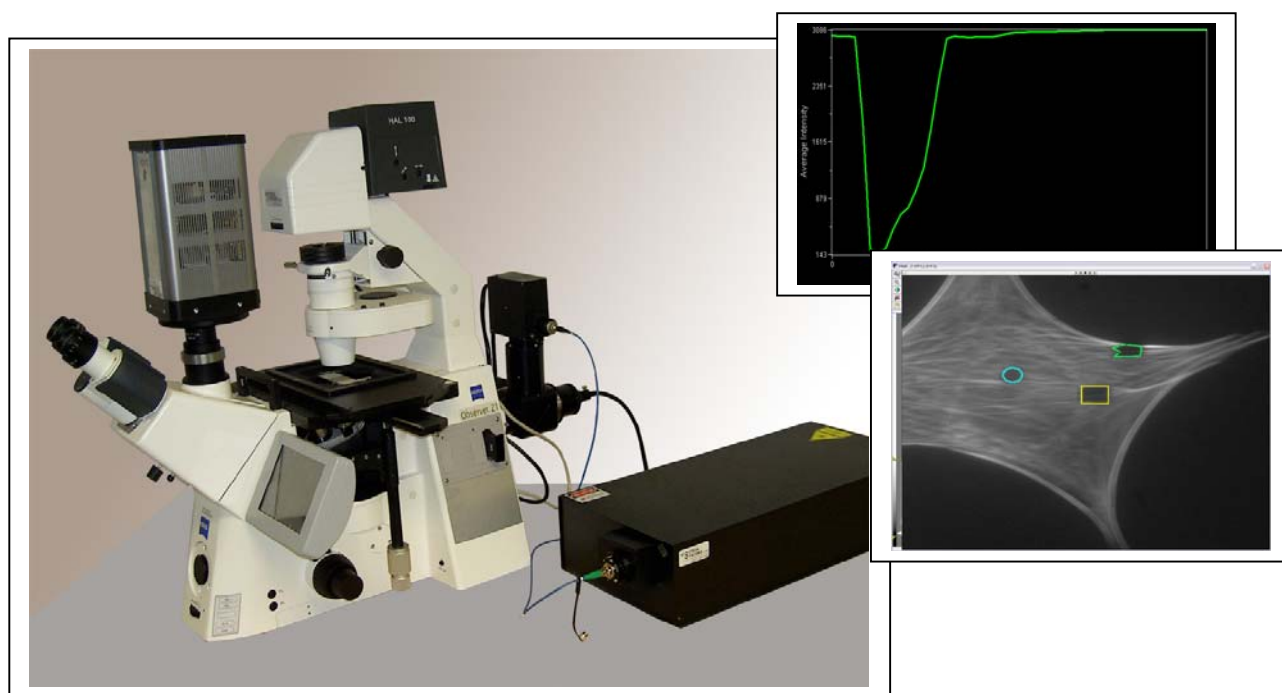


2D VisiFRAP Imaging System

2D-VisiFRAP Realtime Scanner

Fluorescence Recovery After Photobleaching Imaging System

Fluorescent dyes show emission of a specific wavelength after they have absorbed light of a shorter wavelength. Dyes, exposed to high intensity e.g. UV light, respond by photobleaching. The high intense light renders the dyes unable to emit fluorescence. Fluorescence recovery is based on this phenomenon and is typically used to measure the dynamics of molecular mobility or movement of fluorescent labeled molecules. It is also possible to measure the exchange of molecules between separate compartments of the cells.



The 2D-VisiFRAP system from Visitron Systems GmbH is a microscope based imaging solution specially designed for fluorescence recovery or photoactivated studies. The system is based on a 2D galvanometer realtime scanner, a high sensitive CCD camera system, a research microscope like a Zeiss AxioObserver, Olympus BX/IX or Nikon E2000.

The 2D galvanometer scanner head is typically mounted on the epi fluorescence condenser of the microscope. The laser light can be simply adapted via standard FC-connector. Customer's requirements can be easily integrated due to the flexibility of the system. Realtime multi-point confocal technology can be easily combined to enhance resolution- and image quality.

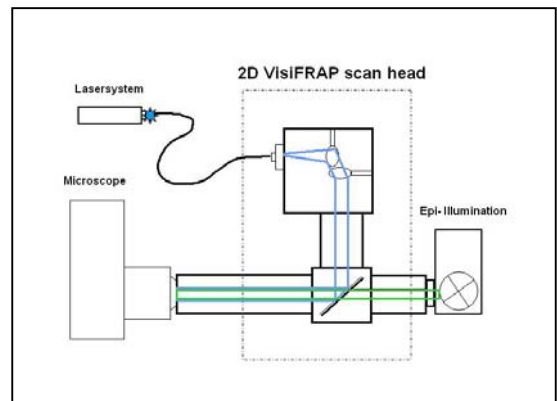
Key Features:

- Galvanometer controlled 2D module for illumination of independent multiple points or multiple ROI's
- Optimized optics for high photon efficiency
- Choice of single or multiple wavelength and laser lines
- High speed switching between realtime confocal CSU spinning disk or Vt-Infinity multi point scanner
- Point size of laser spot about 1µm for 100x objective with high aperture of > 1.33 NA
- FC fiber connector for laser system
- Including Visitron FRAP software module



Typical Application:

- 1D and 2D FRAP for cell biology
- FLIP
- fluorescent labeled macromolecules
- Photoactivation
- Acceptor photobleaching
- Photoconversion studies



2D VisiFRAP block diagram

