

## FLIM Measurement Using a Nikon A1 with a FLIM and FCS Upgrade

This tutorial shows the recording of FLIM images using an LSM upgrade kit, in this case a Nikon A1. In FLIM-measurements, the fluorescence lifetime of a component can be determined which can be used e.g.

- to distinguish different tissue or cell constituents
- to monitor concentration changes using a reporter dye
- To monitor interactions between two molecules via FRET. Recording of FLIM images especially for

FLIM-FRET is also shown in a separate video (see link below).

The general principles of the data acquisition are analogous in all LSM upgrade kits. The movie was recorded in 02/2014 and shows the integration with Nikon A1 system with a NIS version lower than 4.3; the recording procedure may be somewhat different in higher or very old versions.

### Update: NIS Elements 4.3 integrates control for FLIM and FCS

The movie was recorded in 02/2015; the recording procedure may be somewhat different in older or newer models.

Continue to

- [How to measure the Instrument Response function \(IRF\)](#)
- [Recording a Fluorescence Lifetime Image \(FLIM\) Stack with a LSM Upgrade Kit on a Nikon A1](#)
- [FLIM-FRET Measurement using an Olympus FV1200 with a FLIM and FCS upgrade](#)

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