

## 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](#)

Copyright of this document belongs to PicoQuant GmbH. No parts of it may be reproduced, translated or transferred to third parties without written permission of PicoQuant GmbH. All information given here is reliable to our best knowledge. However, no responsibility is assumed for possible inaccuracies or omissions. Specifications and external appearances are subject to change without notice.



PicoQuant GmbH  
Rudower Chaussee 29 (IGZ)  
12489 Berlin  
Germany

P +49-(0)30-1208820-89  
F +49-(0)30-1208820-90  
info@picoquant.com  
www.picoquant.com