

## OptiSlides

### Introduction

The new OptiSlides from Nanofilm are especially designed glass slides with optimal optical properties for measurements of biorelevant layers - e.g. proteins, DNA, lipids, etc. Their advanced optical properties enable ellipsometric measurements on glass substrates in liquid ambient with highest sensitivity.

### Key features

- high sensitivity for ellipsometric measurements on glass
- easy handling due to standard slide format
- flexible linker chemistry
- usable for fluorescence scanner

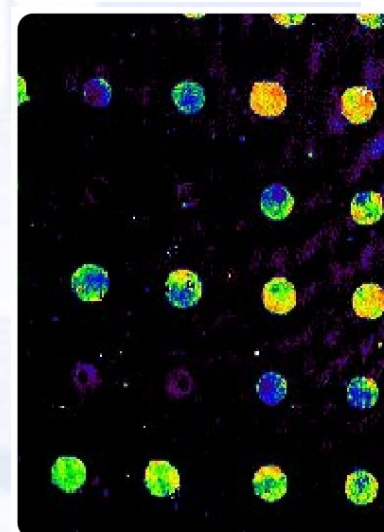
### Applications

- protein-protein interactions
- protein-lipid interactions
- time-resolved measurements in liquid ambient
- nucleic acid interactions (standard OptiSlides)

### High reliability

For conventional glass slides (microscope slides) the density or refractive index of the organic material might be close to the glass substrate. This would lead to a low sensitivity for ellipsometric measurements.

In contrast, the refractive index of the OptiSlides is optimized due to a special layer coating. Thus, OptiSlides enable measurements with high



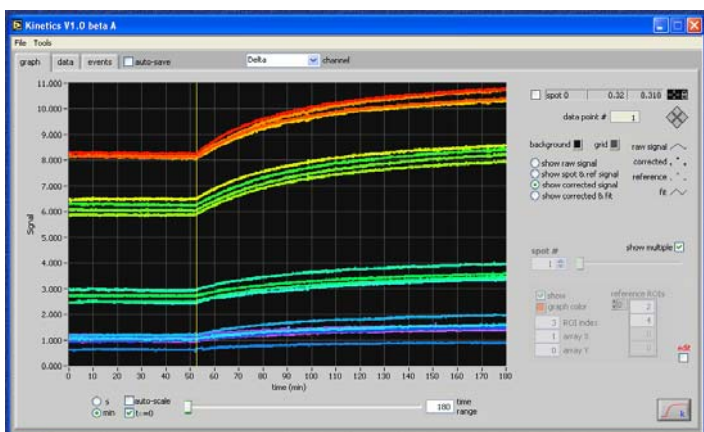
OptiSlide MicroArrays

	Glass slide	Standard OptiSlide	High Sensitive OptiSlide
<b>Throughput</b>	16 channels + reference channels	20 channels + reference channels	28 channels + reference channels
<b>Field of view (2x objective)</b>	2,1 x 2,1 mm <sup>2</sup>	2.1 x 2.7 mm <sup>2</sup>	2.1 x 3.4 mm <sup>2</sup>
<b>Sensitivity for end-point-detection (antigene-antibody assay)</b>	20 kDa	8 kDa	2 kDa
<b>Sensitivity for time resolved Measurement</b>	60 kDa	20 kDa	8 kDa
<b>Sensitivity (mass)</b>	> 210 pg/mm <sup>2</sup>	90 pg/mm <sup>2</sup>	30 pg/mm <sup>2</sup>
<b>Dynamic range</b>	a new monolayer is partly or fully established on the surface 0-20 nm	1-15 molecule layers like established in "sandwich assay" 0-100 nm	a new monolayer is partly or fully established on the surface 0-20 nm

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### Example

For a typical protein-protein interaction experiment OptiSlides are covered with an immobilization layer (e.g. from Chimera), spotted with proteins and blocked with small molecules like ethanolamine. Finally, the binding reaction can be performed in the Kinetic / SPR-cell.



Kinetics interaction for several channels displayed with Kinetics AddOn Software

### Recommended equipment for kinetic measurements with OptiSlides

- EP<sup>3</sup> - SW with 532 nm or 633 nm laser
- Maximum field-of-view mode: 2x objective and beam expander
- Kinetic / SPR cell
- 60° prism (BK7)
- Liquid Handling system

### Order information

- OptiSlides are included in Kinetics / SPR Solution package
- Standard Optislices and High Sensitive OptiSlides are available in packages á 5 pieces each