

## BIAffinity®

- System for interaction analysis of different molecules
- Label-free detection principle (reflectometric interference spectroscopy: Rifs)
- Using of the sensor chip technology
- Real-time analysis of binding effects
- Simple sample handling and user-friendly menu driven software

### System parameter

<b>Fluidic</b>	Flow through cell, valves with smallest dead volume < 0.7 µl
<b>Flow rate</b>	5 – 200 µl/min
<b>Steps of flow rate</b>	1 µl/min
<b>Number of flow channels</b>	2 (single use of channel 1 or channel 1+2 in series)
<b>Internal reference</b>	Channel 1 – channel 2

### Samples

<b>Sample handling</b>	Automatic sample loading and injection via 5 ports
<b>Sample volume</b>	Injection volume + 20 µl
<b>Injection volume</b>	10 µl – 200 µl
<b>Analysis time per sample</b>	2 – 30 min
<b>Optional</b>	96 well standard MTP sampler

### Temperature

<b>Analysis temperature</b>	Up to 40°C ± 0.5 K
<b>Operation temperature</b>	15°C – 30°C

### Measuring parameter

<b>Measuring point registration</b>	>= 1 s
<b>SNR (RMS)</b>	0.8 IU
<b>Detection limit</b>	> 1000 Da
<b>Sensitivity</b>	1.4 pg/mm <sup>2</sup>
<b>Drift</b>	10 IU/h

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### Analysis parameter

<b>Measurement information</b>	Detection of concentration, kinetics and affinity data
<b>Association rate range (<math>k_a</math>)</b>	$10^3 - 10^6 \text{ M}^{-1} \text{ s}^{-1}$
<b>Dissociation rate range (<math>k_d</math>)</b>	$10^{-5} - 10^{-1} \text{ s}^{-1}$
<b>Affinity</b>	$10^4 - 10^9 \text{ M}^{-1}$
<b>Concentration</b>	$10^{-3} - 10^{-10} \text{ M}$

### Software

<b>Data presentation</b>	Label-free real-time monitoring of interactions with simultaneous display of interference spectrum
<b>Data handling</b>	*.csv (commata separated values) *.bin (binary data)
<b>Control software</b>	BIAM measuring program (provides manual and automatic operation mode)
<b>Analysis software</b>	WinAnalysis (optional) for data evaluation

### Other technical data

<b>Computer</b>	Pentium IV processor, Windows 2000 operation system; software instrument
<b>PC connection</b>	USB, connection of PC and detection unit via cable adapter
<b>Weight</b>	Approx. 25 kg
<b>Dimension of device</b>	(W x H x D) 515 x 300 x 370 mm
<b>Dimension of sample holder</b>	(W x H x D) 190 x 165 x 100 mm

### Guarantee

<b>Device without flow cell</b>	2 years warranty
<b>Flow cell</b>	½ year warranty



Subject to changes in design and scope of delivery as well as further technical development!