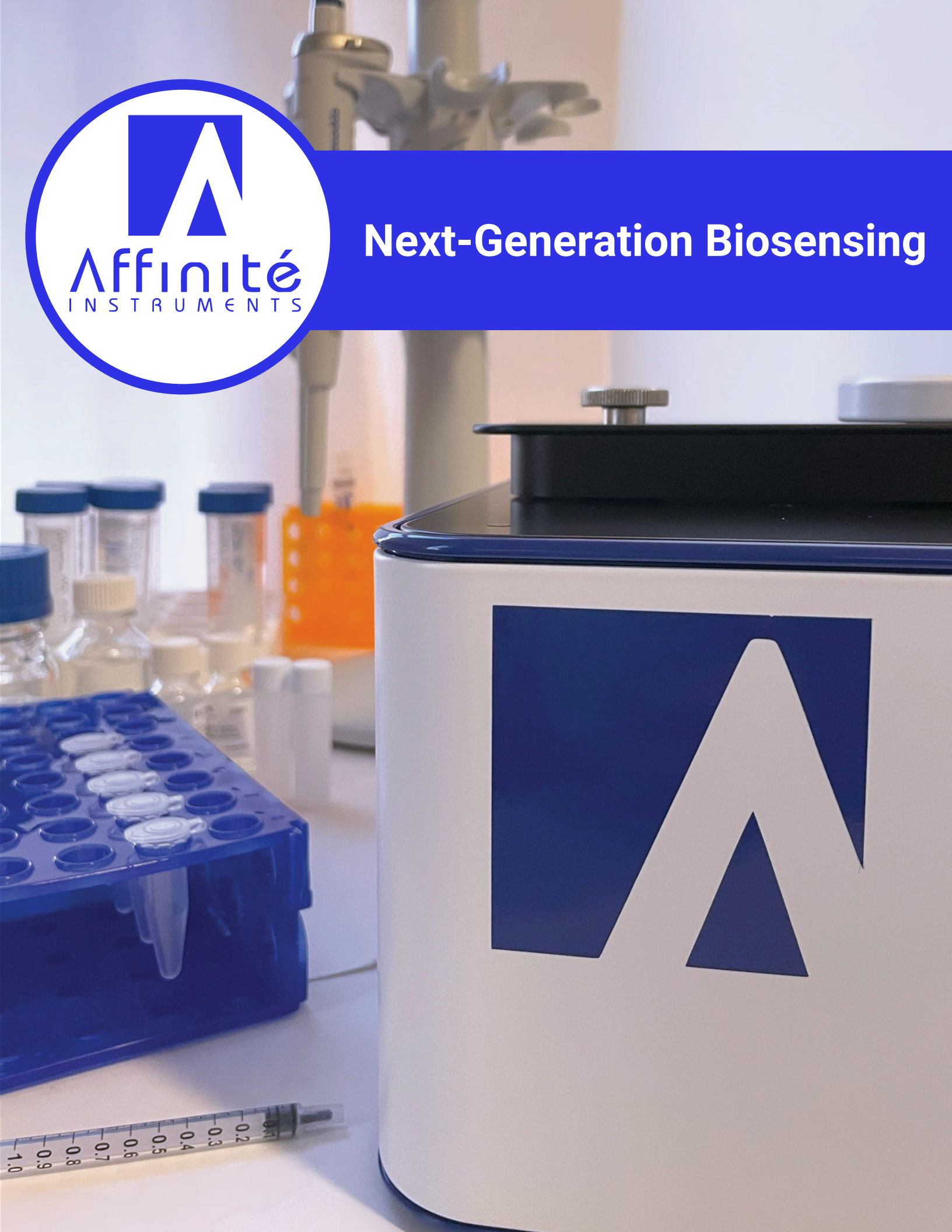




# Next-Generation Biosensing



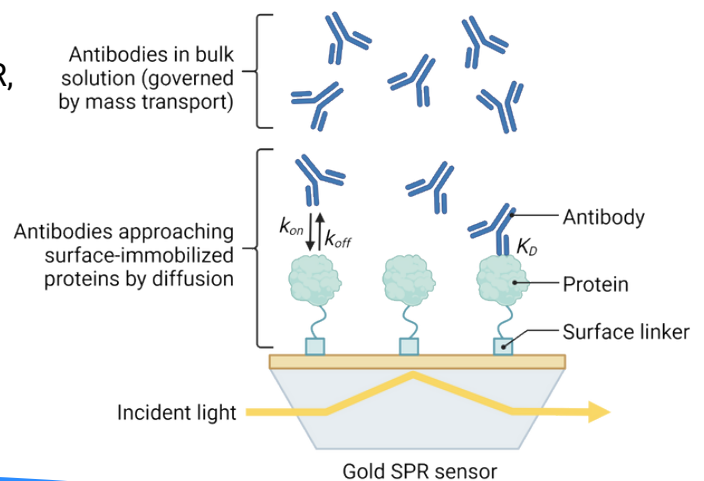
# Revolutionizing Surface Plasmon Resonance: Introducing Lensless SPR Technology

Our innovative biosensing instruments feature a compact and flexible design, integrating our proprietary Lensless SPR technology with advanced microfluidics.

The groundbreaking Lensless SPR technology represents a game-changing leap in the world of SPR instruments. By streamlining the traditional complexities, we have achieved a more compact and efficient design, making it easier than ever to harness the power of SPR. With its patented features, such as the integration of a Dove prism and the strategic use of broad-spectrum LEDs, our Lensless SPR technology promises to transform the way you conduct your analysis.

## Understanding SPR

Surface Plasmon Resonance, commonly known as SPR, is an optical, surface-sensitive technique that has been traditionally used for screening, characterization, and bio- and chemical sensing purposes. In a typical SPR experiment, the interaction between an analyte and a ligand is characterized by kinetic and affinity data, as well as the number of bound analytes, which is displayed on a sensorgram.



**Baseline:** The initial phase is the baseline. A running buffer is used to condition the sensor surface and check for any sensor system instability



**Association:** The second phase is where analytes begin to bind to immobilized ligands. It is indicated by the initial sharp rise of the SPR signal in the sensorgram and it is ideally a single exponential curve



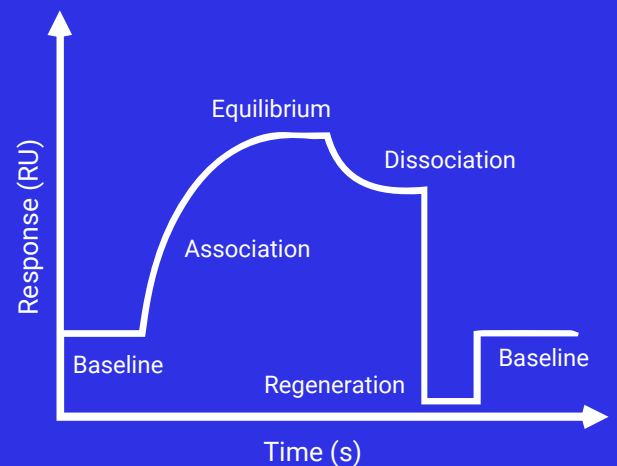
**Steady state:** This phase occurs at the top flat portion of the sensorgram where the net rate of bound analytes is zero



**Dissociation:** This phase begins when the analyte solution is replaced by a wash buffer, which causes the specific interactions between the analytes and ligands to break



**Regeneration:** Finally, a low pH buffer such as glycine is flowed to reset the SPR baseline signal as the beginning of the experiment

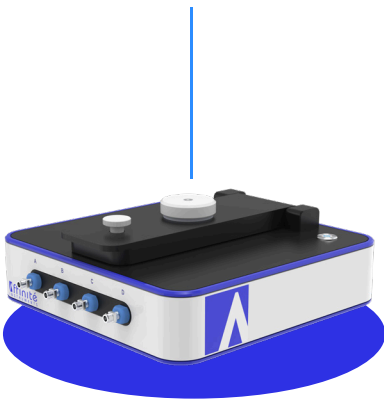


# Product Line

## Unleash the Power of Biosensing: Affinité's Compact and Innovative Solutions

At Affinité, we understand the challenges that scientists face when working with techniques such as ELISA. That's where our next-generation SPR devices become the solution. With Lensless SPR, you can optimize and validate your surface chemistry preparations in real-time, saving you hours of troubleshooting and enabling faster, more efficient research. Our products stand out for their exceptional quality and performance, boasting a unique, ultra-compact SPR module powered by proprietary Lensless SPR technology.

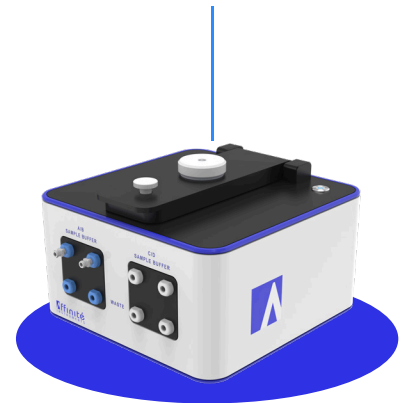
P4SPR 2.0



P4PRO  
and Affipump



P4PRO+



### Lensless SPR Technology:

Our unique, ultra-compact SPR module is powered by proprietary Lensless SPR technology, ensuring precise and reliable results for your biosensing needs.

### Integrated Microfluidics:

Paired seamlessly with advanced microfluidics, our SPR module enhances performance and accuracy, allowing for a comprehensive understanding of molecular interactions.

### Compact and Flexible Instruments:

Our compact design allows you to conduct experiments with ease, making it an ideal solution for various laboratory settings.

### One Instrument, Infinite Possibilities:

From protein-protein interactions to small molecule binding studies, our instruments cover a broad spectrum of applications.

### Lower Operating Costs

Achieve more with less, without compromising on the quality of your analysis or research.

	P4SPR 2.0	P4PRO and Affipump	P4PRO+
Affinity characterization ( $K_D$ )	✓	✓	✓
Specificity screening/ranking	✓	✓	✓
Yes/no binding	✓	✓	✓
Concentration analysis	✓	✓	✓
Multi-step binding interactions		✓	✓
Live binding data	✓	✓	✓
Kinetics characterization ( $K_{on}$ and $K_{off}$ )		✓	✓
Simultaneous analysis of four samples	✓	✓	✓
Single and multi cycle analysis	✓	✓	✓
Higher quality flow control		✓	
All-in-one device			✓
Manual Injection	✓	✓	

## Applications

Our SPR devices have found applications in a diverse range of research fields. Their ability to provide real-time, label-free analysis of molecular interactions make them an invaluable tool for drug discovery, biomanufacturing, and fundamental research. Whether you are studying protein-ligand binding, analyzing biomarkers in clinical samples, or investigating cellular processes, Lensless SPR has the sensitivity and versatility to provide the data you need. Some of our main application fields include:

- ✓ Biosensing
- ✓ Drug Discovery
- ✓ Biomanufacturing
- ✓ Environmental Testing
- ✓ Bioanalytical Testing and More

## COMPATIBLE TARGETS



DNA



Antibody



Small molecules



Oligonucleotides



Aptamer



Peptides/other proteins



Cells



Nanoparticles



Carbohydrates



Antigen

## SOFTWARE

### Experience the Perfect Balance of Ease of Use and Functionality with ezControl Software

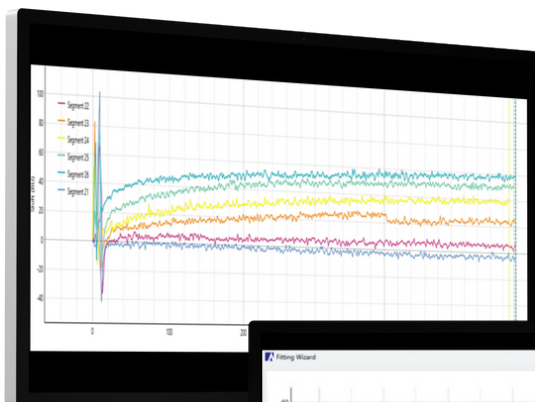
Our ezControl software is designed to streamline the analysis of data generated by your SPR experiments. Some unique features of the software include:

- Easy 5-minute setup with intuitive interface
- Real-time data processing for fast decision-making in method development
- Record tracking with timestamped details for accuracy
- Apparent KD determination and concentration analysis
- CSV export for flexible data processing, including TraceDrawer
- Flexible instrument control for diverse experiments

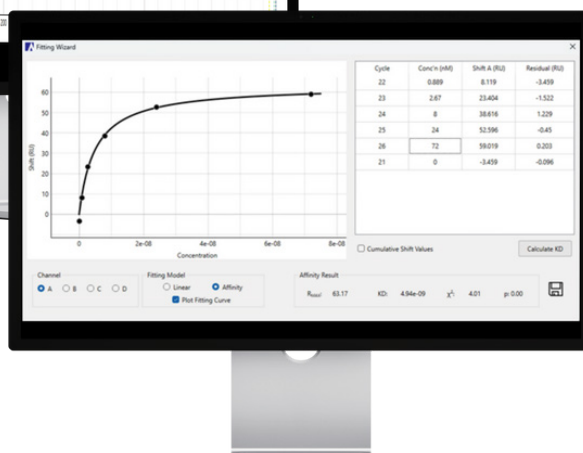
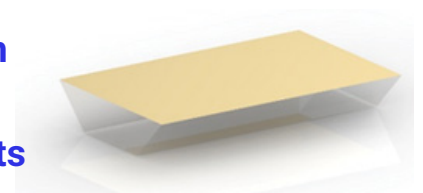
## CONSUMABLES

We offer a diverse range of sensors with tailored surface chemistries to accommodate various applications. Whether you are delving into protein-protein interactions, studying small molecule binding, or exploring nucleic acid interactions, our sensors are designed to meet your specific research needs. We also offer curated kits that include everything you need for a successful experiment, ensuring a hassle-free and streamlined workflow.

Sensor	Surface Chemistry
Gold	Thiolated ligand
Carboxyl	Amine group on ligand using EDC/NHS coupling
NTA	Histidine-tagged ligand
Streptavidin	Biotin-tagged ligand
Afficoat	Amine group on ligand using EDC/NHS coupling
Glass	Customized metallic surface



### Enhance Your Research with Customizable Surface Chemistries and Tailored Kits



## AVAILABLE KITS

- Amine coupling
- Demo test
- Starter test
- Streptavidin capture
- NTA
- DNA QC
- Streptavidin Kit A
- Mouse IgG capture
- Immobilization screening
- Regeneration scouting
- Cleaning
- Human IgG capture



# Get in touch with us

Request a demo

[info@affiniteinstruments.com](mailto:info@affiniteinstruments.com)

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