

Reichert® SPR | FLEXIBILITY. PERFORMANCE. VALUE. | 2, 3, and 4-Channel Surface Plasmon Resonance Systems



DISCOVER THE DIFFERENCE OF REICHERT® SPR!

Reichert has a long history of innovation in scientific instruments, dating back to the first American-made microscope in 1838. This legacy continues with their Surface Plasmon Resonance (SPR) systems. Since entering the label-free biosensor market in 1997, Reichert has partnered with XanTec bioanalytics to deliver affordable, user-friendly SPR solutions for researchers in both academic and industrial sectors. Their systems, combined with innovative consumables, are recognized for generating high-quality data and offering flexible functionality, making them indispensable tools for studying biomolecular interactions.



WHAT IS SPR?

SPR is a proven, label-free biosensor technique for studying interactions between all classes of biomolecules to understand biochemical mechanisms in real-time, providing unmatched versatility and data quality.

With Reichert SPR, you can answer the following questions:

- How quickly do molecules interact?
- How strong is the interaction?
- How specific is the interaction?
- What are the concentrations of the interactants?
- Are environmental factors involved?

WHY IS SPR IMPORTANT?

SPR provides richer, more accurate data about biomolecular interactions compared to other biosensing techniques. It offers a single platform to measure interaction rates, affinity, and can answer other diverse questions.

Reichert SPR is the gold standard for analyzing biomolecules, providing:

- Measurement of high-quality kinetic parameters.
- Real-time data acquisition.
- Label-free analysis.
- Faster, automated experiments.

WHAT ARE THE APPLICATIONS FOR SPR?

From Drug Molecules to Whole Cells.

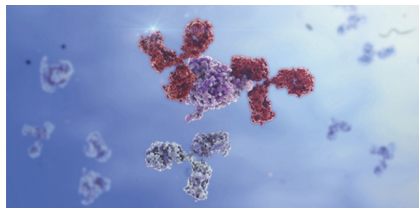
Our systems study interactions across a vast spectrum of scientific fields and tackle even crude samples and undiluted serum with ease. This flexibility, coupled with high sensitivity and stability, makes Reichert SPR a powerhouse in the life sciences and materials research disciplines.



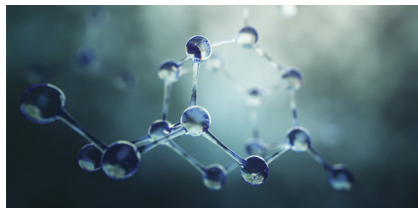
ANTIBODY DEVELOPMENT



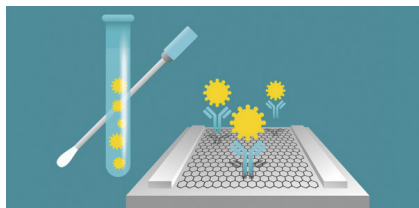
BIOPHARMACEUTICALS



BIOMOLECULAR INTERACTIONS



DRUG DISCOVERY



BIOSENSORS



MATERIAL CHARACTERIZATION

WHAT IS THE REICHERT SPR ADVANTAGE?

Focus on Research, Not Equipment Costs.

Breakthrough research deserves efficient tools. Reichert systems deliver exceptional performance with significantly lower operating costs. Invest more in your science and achieve groundbreaking results. Choose Reichert and free up valuable resources for your lab.

Lower Equipment Costs.

Reichert SPR Systems advertise their systems as costing 20-30% less than leading competitors for similar capabilities. This translates to significant savings, especially for labs with tighter budgets.

Lower Operating Costs.

Don't let ongoing costs chip away at your research budget. Every SPR system requires sensor chips for protein coupling, and labs typically use 75-200 chips annually. That's why Reichert SPR Systems prioritize affordability. Our high-quality chips are significantly less expensive as compared to the equivalent competitor offering, allowing you to run more experiments and maximize your research output.

Designed for User-Friendly Maintenance.

Unlike our competitors who lock you into expensive service contracts costing up to \$150,000 over five years, Reichert SPR Systems empower you with self-service. Our systems are designed for user-friendly maintenance. Commonly maintained parts are easily accessible, so you can handle routine upkeep yourself and save money. Of course, we understand that some may prefer professional care. That's why we also offer optional service contracts for your peace of mind.

REICHERT® SPR SYSTEMS

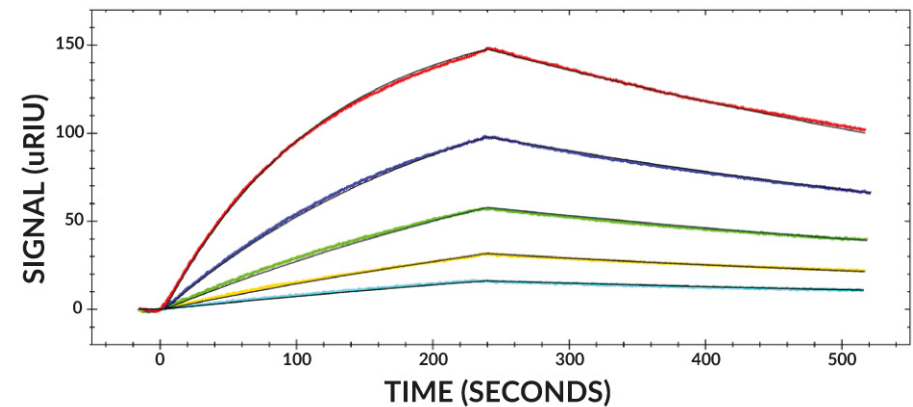
Flexibility. Performance. Value.

Reichert's SPR systems deliver unmatched sensitivity and detection limits for label-free, real-time analysis of biomolecular interactions, all at a significantly lower cost than the competition.

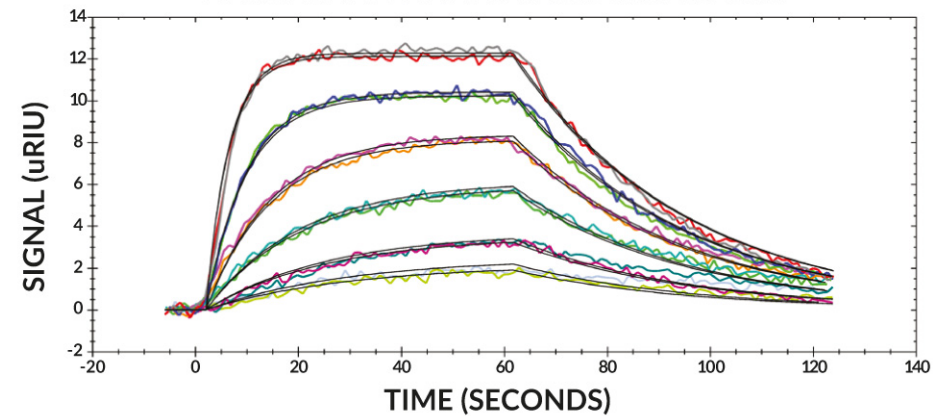
Choose Reichert SPR for:

- High-quality, publication-ready data.
- Unmatched flexibility.
- Lower equipment costs.
- Lower operating costs.
- No service contract required.
- The best performance-to-cost ratio for individual labs.
- A proven SPR leader since 1997.

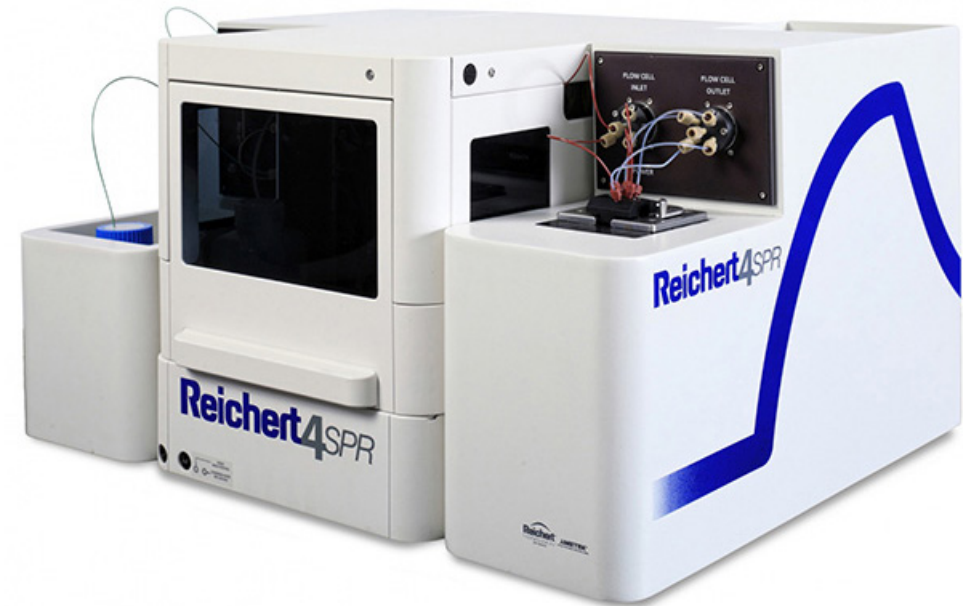
DATA EXAMPLE 1: anti-HSA BINDING TO HSA



DATA EXAMPLE 2: 4-CBS BINDING TO CAII



REICHERT® 4SPR



4-CHANNEL SURFACE PLASMON RESONANCE SYSTEM

More Flexible, More Powerful, and More Affordable.

Unleash groundbreaking research with exceptional value. **Reichert 4SPR** combines unmatched data quality with a dramatically lower cost of ownership. Save 30-70% over 5 years compared to similar systems and reinvest in your scientific breakthroughs.

Reichert 4SPR Advantages:

- Analyze crude samples and seamlessly integrate with other techniques for a comprehensive workflow.
- Intuitive software with guided workflows simplifies operation for researchers of all experience levels.
- The best performance-to-cost ratio for individual labs.
- 4 channels for greater efficiency and throughput.
- Ideal choice for biotech labs and core facilities.

REICHERT® 3SPR



3-CHANNEL SURFACE PLASMON RESONANCE SYSTEM

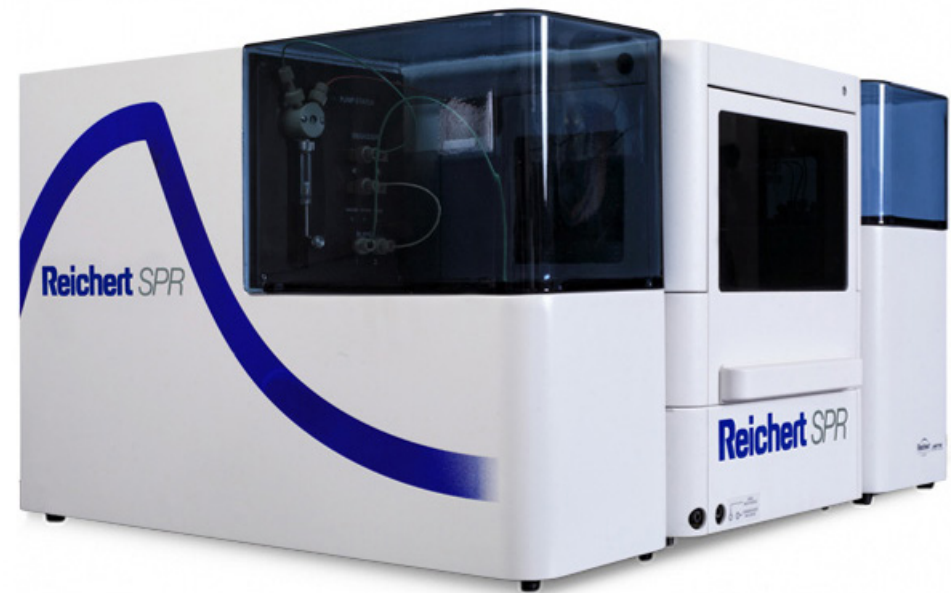
The Best Compromise Between Throughput and Cost.

The *Reichert 3SPR* streamlines your workflow and maximizes research output. This innovative system boasts a dual analysis and reference channel design, allowing you to immobilize different molecules for more data while saving 20% compared to competitor systems with lower throughput.

Reichert 3SPR Advantages:

- Robust fluidics - handle crude samples and whole cells.
- 3 channels for expedited method development and data output.
- Increased sensitivity with the best performance-to-cost ratio for individual labs and core facilities.

REICHERT® 2SPR



2-CHANNEL SURFACE PLASMON RESONANCE SYSTEM

The Most Affordable High-Performance 2-Channel SPR.

The powerful **Reichert 2SPR** delivers industry-leading sensitivity and detection, helping you achieve groundbreaking results. Trusted by leading universities and institutions worldwide, Reichert 2SPR empowers researchers like you to unlock the secrets of biomolecular interactions with exceptional performance and affordability.

Reichert 2SPR Advantages:

- Enhanced Flexibility - run crude samples and integrate to other techniques.
- The most sensitive, flexible, and affordable 2-channel available.
- The best performance-to-cost ratio for academic labs.
- Ideal choice for biotech labs and core facilities.

COMPONENTS, CONSUMABLES, AND ACCESSORIES

XANTEC SENSOR CHIPS

Select What's Right for Your Experiment.

XanTec bioanalytics provides the most extensive sensor chip portfolio on the market. Maximize the performance of your Reichert SPR instrument (2, 3, or 4-channel) or take advantage of innovative immobilization chemistries that are not available elsewhere. Whether you are running a traditional biomolecular interaction analysis experiment or a more sophisticated assay, we have the sensor chips you need.

- Innovative sensor chip chemistries unlock new experimental options.
- Achieve optimal data quality—even with challenging samples.
- Affordable prices let you explore more interactions..
- Detailed protocols accompany every chip.
- Custom coatings are available to suit specific applications.



Examples of Sensor Chip Types:

- Plain Gold
- 2D and Hydrogel Carboxymethyl Dextran
- Polycarboxylate Hydrogels (various densities and charge densities)
- Streptavidin (various densities)
- NeutrAvidin on Low-Charge-Density Hydrogel
- Protein A, Protein A/G
- NTA and Drift-Free Poly-NTA Nickel
- Azide and DBCO for Click Chemistry
- Strep-Tactin XT Derivatives
- Regenerable Oligonucleotide-Derivatized Surfaces
- SpyCatcher
- And many more...

BUFFERS AND REAGENT KITS

High-quality reagents and buffers are critical to ensuring consistent data quality. XanTec bioanalytics offers a wide array of running buffers, regeneration cocktails, and immobilization kits. These reagents are carefully optimized to complement their SPR sensor chip technology, ensuring reliable performance across applications.

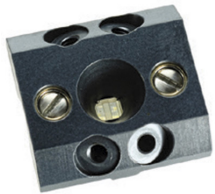
COMPONENTS, CONSUMABLES, AND ACCESSORIES

FLOW CELLS

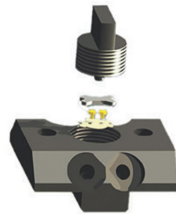
Expand or Replace.

Our open flow cell system lets you swap flow cells for diverse experiments, minimizing downtime and costs with easy cleaning and maintenance.

Specialized Flow Cells:



QUARTZ WINDOW



MALDI MASS SPECTROMETRY



ELECTROCHEMICAL

Standard Flow Cells:



2-CHANNEL



3-CHANNEL



4-CHANNEL



SR7500DC, 2SPR

PREVENTATIVE MAINTENANCE KIT

Avoid Downtime and Keep Your Instrument Running at its Best.

Maintain productivity with this convenient kit that includes the wear items that are recommended to replace after every 3 years of usage.

SPECIFICATIONS



TECHNICAL INFORMATION

MEASUREMENT CHANNELS	Two, Three, Four
SAMPLE LOADING	Autosampler, up to 768 samples
INJECTION VOLUME	10 uL to 4,500 uL (depends on installed loop volume)
BUFFER DEGASSER	Built-in
TEMPERATURE RANGE	10° below ambient to 70°
SAMPLE STORAGE	4° or ambient temperature
21 CFR PART 11	Compliant

MEASUREMENT SENSITIVITY

BASELINE NOISE	0.05 uRIU (RMS)
BASELINE DRIFT	< 0.1 uRIU/min
MINIMUM MOLECULAR WEIGHT DETECTION	< 100 Daltons

TYPICAL KINETIC & EQUILIBRIUM CONSTANT RANGES

ASSOCIATION RATE CONSTANT	10^3 to 10^8 M ⁻¹ s ⁻¹
DISSOCIATION RATE CONSTANT	10^{-3} to 10^{-6} s ⁻¹
EQUILIBRIUM DISSOCIATION CONSTANT	10^{-3} to 10^{-12} M

HIGH-QUALITY DATA, SIMPLIFIED, EVERY TIME.

Unlock the secrets of biomolecular interactions with Reichert SPR systems. Designed for affordability and ease-of-use, Reichert SPR empowers researchers of all experience levels to achieve high-quality data. Its unmatched flexibility allows you to tackle a wide range of experiments, from basic affinity measurements to complex kinetic analyses. With Reichert SPR, you gain the confidence to explore the intricate world of biomolecular interactions and make groundbreaking discoveries.

Visit us here to learn more:

www.xantec.com



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