Biosensing Instrument

# SPR Analysis Modules

Biosensing Instrument's SPR systems are module-based, designed specifically for user flexibility and versatility to maximize the research experience. The interchangeable analysis modules allow users to easily switch among fluid injection, electrochemical, and gas phase detection applications.

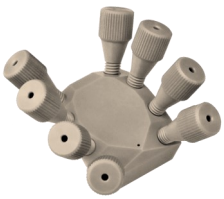
## *Key Features*

- ☑ Modular design provides users with maximum flexibility.
- ☑ Cell body and fluidic channels constructed with biocompatible materials to eliminate sample carryovers and memory effects.
- ☑ Easy usage and simple cleaning and maintenance.

## BI-DirectFlow™ Analysis Module

***Precision Sample Delivery for Ultra Fast Kinetics***

This technology delivers sample to the sensor surface with near-zero dispersion, enabling ultra-fast kinetics and high-resolution binding analysis. This unique technology enables finer observation and removal of secondary effects such as bulk refractive index shift, mass limited transport, and non-specific binding. As a result, high quality data that is more representative of true molecular binding behavior is obtained. This module is a multiple channel configuration and its small internal volume (< 1 µL) conserves expensive reagents and valuable samples.



## Flow Injection Analysis Module

***Precision Sample Delivery for Binding Analysis***

This two-channel micro-fluidic module delivers sample in a continuous flow stream to the sensor surface for the study of molecular binding interactions. It is optimized to enhance reference and background subtraction, thus reducing noise and drift.

## Gas SPR Module

***For Gas Phase and Chemical Vapor Sensing SPR***

This technology enables the high sensitivity of SPR analysis to be performed in the gas phase, permitting new capabilities for sensor development, thin film analysis, environmental and air quality research.

## EC-DualFlow™ Analysis Module

***Dual Channel Electrochemical Flow-Through SPR***

This technology provides users with capabilities to study molecular binding processes and conformational changes of biomolecules under the influence of applied electrochemical potentials at different flow rates. Its small channel volume facilitates rapid sample exchange and fast kinetic studies, and also drastically reduces consumption of valuable biological samples. The dual-channel design allows users to perform serial downstream analysis and control experiments.

## EC SPR Analysis Module

***Simultaneous Electrochemical and SPR Analysis***

The module's design facilitates simultaneous electrochemical and SPR measurements on the same sensor chip and it allows fast potential step and voltammetry measurements. It also allows users to purge dissolved oxygen from the electrolytes.

Summary of analysis modules offered in the various BI-SPR models

| | BI-DirectFlow™ | Flow injection | EC-DualFlow™ | EC SPR | Gas SPR |
|---|---|---|---|---|---|
| BI-4500 Model<br>BI-4000 Model<br>BI-3000 Model | Included | N/A | Optional | Optional | Optional |
| BI-2000 Model | N/A | Included | Optional | Optional | Optional |

Biosensing Instrument

One W Elliot Rd, Suite 111
Tempe, AZ 85284, USA
Tel: 1-480-491-2777
Fax: 1-866-897-8741
Email: Info2BI@BiosensingUSA.com
Website: www.BiosensingUSA.com


Printed in USA Mar 2015