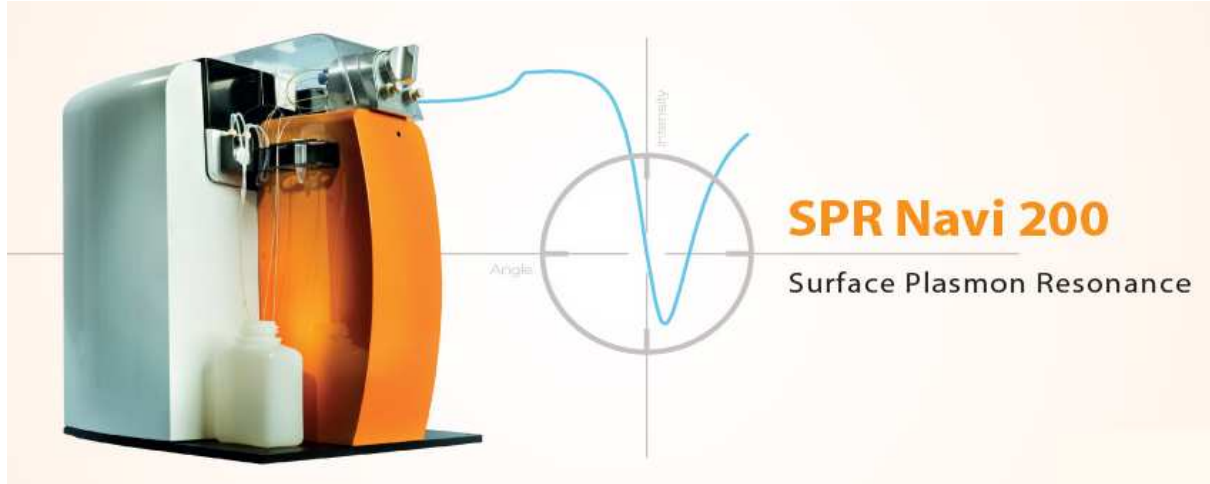


SPR NAVI™ 200

Semi-Automatic MP-SPR



SPR NAVI™ 200 - THE MODULAR MP-SPR

SPR Navi™ 200 is the core measurement unit in our product range. Choose SPR Navi™ 200, if you want to connect MP-SPR to other measurement instruments or if you want to start with a lite version of MP-SPR and upgrade it later on with our range of stand-alone accessories.

Key Features of SPR Navi™ 200:

Modularity

SPR Navi™ 200 allows you to connect other stand-alone instruments or tune it to your specific application needs. As shown in the comparison, it is semi-automatic by default, but can be automated using our stand-alone autosampler. Also here, to fully enjoy the MP-SPR, we recommend the additional set of lasers.

True Goniometric SPR

Unlike most SPR systems, SPR Navi™ 200 is a true goniometric SPR. This enables a wide angular scan range (= 40–78°) that produces a complete SPR curve with absolute angle information. The true goniometric SPR configuration confers great advantages as it widens the range of refractive indexes at which you can measure, allowing you to characterize surfaces in gas and/or liquid. It also allows you to check the quality of user-defined surfaces before sample injection, providing you with additional evidences. In other words, the wide angular scan range makes SPR Navi 200 an extremely sensitive and versatile characterization instrument.

Customizable flow cell

SPR Navi™ 200 comes with dual measurement channels for in-line referencing or duplicate measurements. In addition, the easily accessible flow-cell can be customized for user-specific experiments, thus broadening your experimental capabilities. For instance, BioNavis can provide electrochemical flow cells or flow cells equipped with optical fibers for surface illumination. The flow cell shape can also be customized to tailor the flow dynamics to your needs.

Flexible sensor-slide system

With the SPR Navi™ 200 System, you can use the innovative sensor-slide holder for easy “drop-in” placement of your sensor-slide into the instrument. It allows users to change surfaces within seconds, making SPR Navi™ 200 an extremely convenient instrument to work with. The sensor-slide holders can be labeled and used for long-term storage of your custom-modified surfaces. Sensor-slides can be modified outside the instrument, with a great number and combination of layers, prior to the actual analysis. This unique removable sensor system provides additional flexibility. It allows you to combine SPR data with other widely used techniques to provide supporting information, including surface topography, surface wettability, chemical composition, photochemical processes, swelling, adsorption...

Contamination free MP-SPR & open design

The proprietary optical elastomer in the SPR Navi™ 200 finally does away with the need for messy and potentially contaminating index-matching oil. In addition, SPR Navi™ 200 open design enables convenient access to the easily removable flow cell, as well as to tubing, pump and injection valve. The result is a contamination-free environment for your measurements as well as an open platform for easy cleaning and customizations. The optional immobilizer, a horizontally oriented stand-alone flow cell, can be used for in-situ functionalization of SPR slides. This further minimizes the risk of cross-contamination and enables minimal sample depositions.



EASY OPERATION



1) Insert sensor slide into a sensor-slide holder.



2) Insert sensor slide into the instrument



3) Load the injection loop(s)

LIQUID HANDLING SPR NAVI™ 200 Specification:

Pump: Integrated 2-channel peristaltic pump, software controlled, 10-400 $\mu\text{L}/\text{min}$

Sample loading: Manual

Loop volume: 100 μL (50 μL , 250 μL and others available)

Injection: 12-port injector (manual switch)

For experiments with liquids, we strongly recommend a degasser.

The instrument can be equipped with a syringe pump or upgraded into SPR Navi 210A or 220A.

Wetted parts:

- Instrument: PEEK
- Flow-cell: PDMS/PEEK/titanium