Spectroelectrochemistry within everyone's reach

When combining two techniques became the perfect solution for your research

3 year instrument warranty

Advanced instruments for getting the most of your experiments through a dedicated and easy to use software. A complete solution for obtaining synchronized optical and electrochemical data. Spectra are obtained while electrochemical processes are taken place in the system under study.

Typical applications

- Identify and check chemical structures
- Surface characterization of new materials in photovoltaics, batteries, …
- Determine oxidation states in organic and inorganic compounds
- Follow electrocatalysis reactions optically
- Improve the limit of detection thanks to surface enhanced RAMAN spectroscopy (SERS)

Key benefits

- Integrated solutions
- Outstanding results quicker and easier thanks to intuitive DropView SPELEC dedicated software
- Complete knowledge of your sample
- Results validated by two techniques
- Work with any kind of electrochemical, optical and spectroelectrochemical cell

Metrohm DropSens
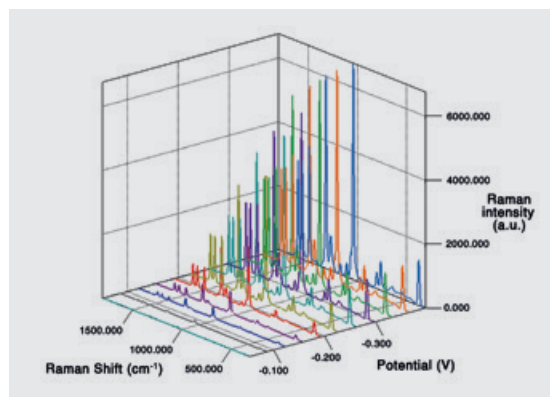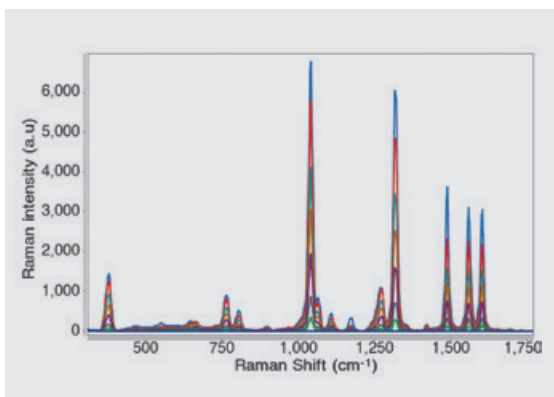
RAMAN Spectroelectrochemistry

Fingerprint technique allowing qualitative and quantitative results using SPELEC RAMAN instrument:

- Versatile wavelength allows you to work with any kind of system under study, minimizing the fluorescence and sample damage.
- Enhancement of Raman signal thanks to SERS and electrochemical SERS (EC-SERS) effects.

UV-VIS and NIR Spectroelectrochemistry

Specially recommended for characterization of electroactive materials and their optical properties. New methodology development through hybrid techniques.

- SPELEC fully integrated solution for the UV-VIS and NIR regions. Three different wavelength ranges available: 200–900 nm (SPELEC), 300–1050 nm (SPELEC 1050), 900–2200 nm (SPELEC NIR)

DropView SPELEC Software

Dedicated with specific features for spectroelectro-chemical experiments. Just one software for:

- Simultaneous acquisition of electrochemical and spectroscopic data
- Real time information of your system during the whole experiment
- Easy comparison of electrochemical and optical data in the same window
- Data treatment (smooth, derivative, baseline correction, etc. for spectra and EC curves)
- Data analysis (automeasurements, spectra vs EC curve or vs time, spectra at EC point…)
- Save the electrochemical, optical or both responses simultaneously as a video file

SPELEC compact and fully integrated solution available in RAMAN, UV-VIS, and NIR ranges.

www.metrohm.com