



Electrochemical cell for CW-EPR

- For bench-top and floor-standing spectrometers

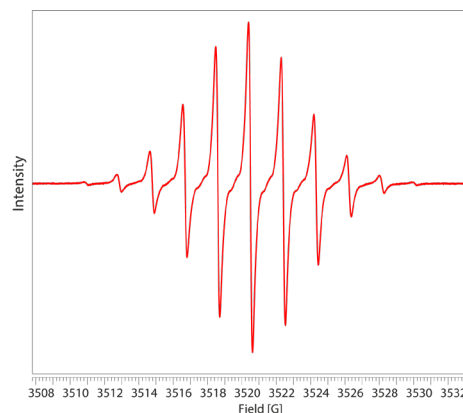
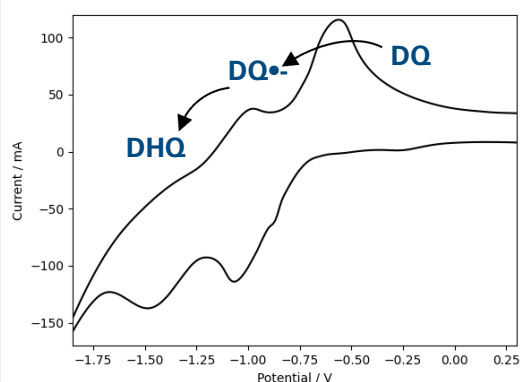
EPR is a powerful technique to investigate electron transfer reactions that often involve EPR-active species. With the new electrochemical cell for CW-EPR, redox reactions involving paramagnetic compounds can be easily monitored and studied in situ at X-band. EPR sheds light on the reaction mechanisms and interactions involving the generated radicals.

The EPR cell for electrochemical reactions is an accessory for Bruker's Magnettech ESR5000 benchtop spectrometer and the floor-standing EMX and Elexsys spectrometers in combination with the SHQE and HS resonator.

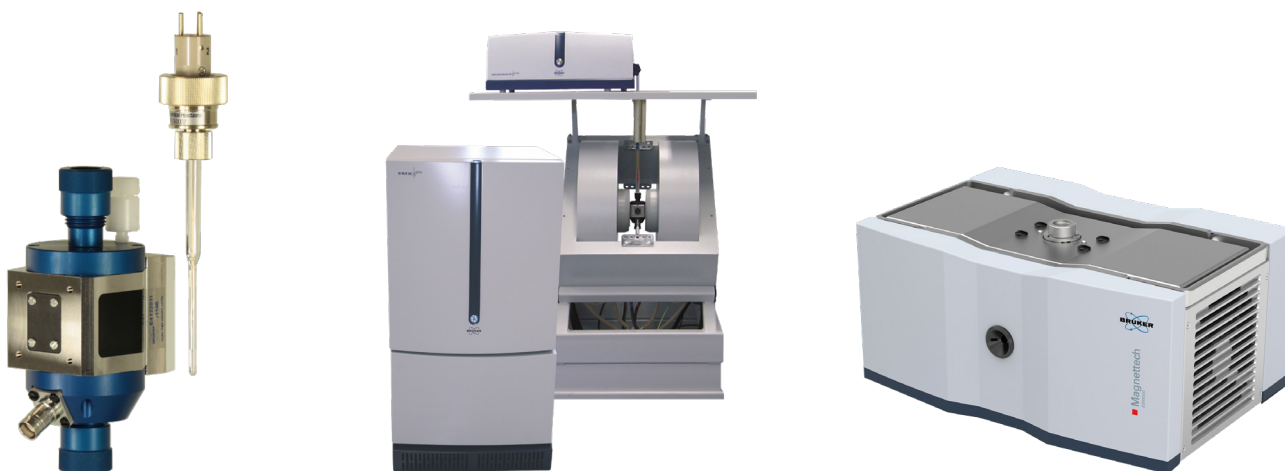
Features of the EPR cell for electrochemical reactions:

- In situ Cyclic Voltammetry
- Convenient three-electrode design: working and counter platinum electrodes, silver reference electrode
- Modular design for quick sample loading, user-friendly replacement and cleaning of electrodes
- Easy connection to potentiostat with alligator clips
- Compatible with the Magnettech ESR5000 bench-top spectrometer, and ER4119HS and ER4122SHQE resonators of floor-standing spectrometers

Cyclic voltammetry and CW-EPR of Durosemiquinone radical anion



Left: In-situ cyclic voltammetry of 2 mM Duroquinone (DQ) in acetonitrile and 100 mM TBAF in the electrochemical cell. DQ is reduced via the radical anion (DQ $\bullet^-$) to durohydroquinone (DHQ). Right: CW-EPR spectrum of the Durosemiquinone radical anion (DQ $\bullet^-$) recorded at -1.2 V. Right:



The electrochemical cell for CW-EPR is compatible with the Magerettech ESR5000 and with the ER4119HS and ER4122SHQE resonators for the EMX and ELEXSYS series spectrometers. An external potentiostat is required for operation.