



EPR Quantification Package: SpinCount and SpinFit

- High Precision and Reference Free

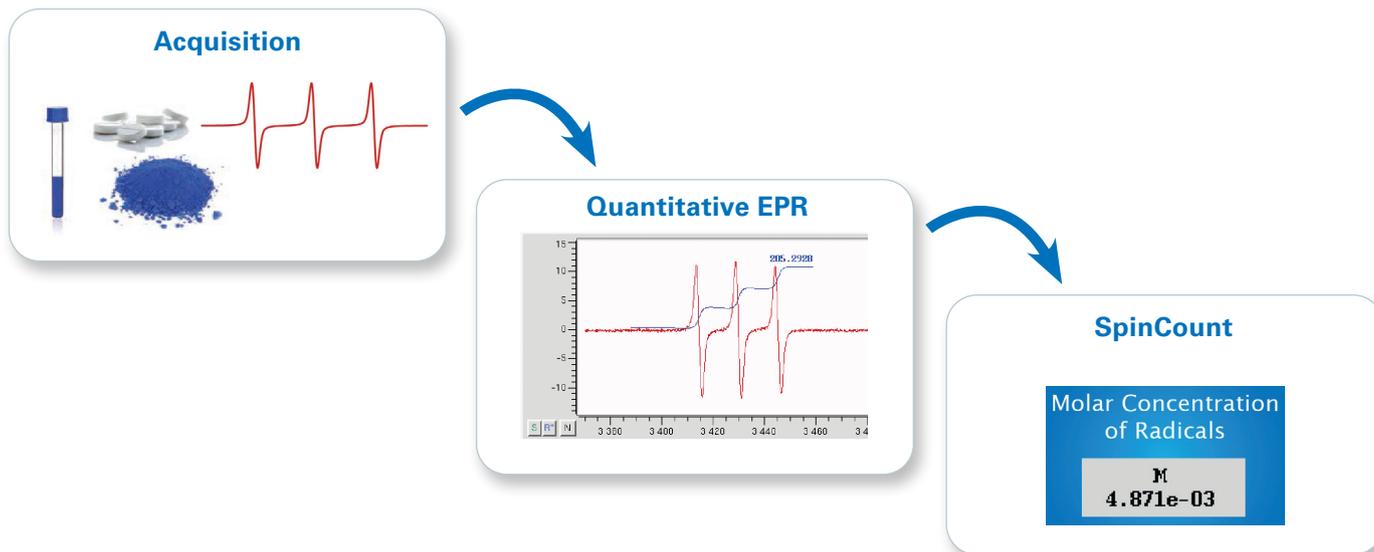
Identification and quantification of the EPR active species (free radicals and transition metals) is a critical aspect in research, development and process/quality control. These species play an important role in many processes such as photosynthesis, oxidation/reduction, catalysis, and polymerization. Additionally these species can act as redox agents that cause damage to tissues, cells, pharmaceutical products and materials such as solar cells and polymers.

With the EPR Quantification Package: SpinCount and SpinFit, the task of identifying and quantifying EPR species is both straightforward and precise.

The EPR Quantification Package is available for Bruker's EPR spectrometers running Xepr, Xenon, and ESRStudio software.

EPR Quantification Package includes:

- SpinCount with an easy to use interface allows direct conversion of the measured EPR signal to the concentration of radicals or transition metals in the sample.
- SpinFit facilitates identification of the EPR-active species even in a multicomponent signal providing concentrations of individual components.
- Fast identification is made easier with the SpinFit library of commonly encountered EPR-active species.



SpinCount and SpinFit: Dedicated full analysis software

Experiment

Radical 1
Concentration = 6 μM

Radical 2
Concentration = 2 μM

Field / G

3440 3460 3480 3500 3520 3540

Quantitative EPR ...

SpinFit

SpinCount ...

Spin Fitting

Load Report Options

Radical: Add Remove DMPO-hydroxyethyl

Name	Rad1	Rad2
g Factor	2.00523	2.00525
Line Width	0.50626	0.6158
Line Shape	0.941933	0.97152
	0.6037	2.626

Spin/2 Mult HPS[0]

2	1	15.8766
1	1	22.921

Fit Line Positions
 Fit Line Width/Shape
 Show Residual
 Fit All Slices

Show Fit Close Help

Absolute Spins Report

REPORT

M

2.003e-06

END_REPORT

Close Save

- Multi-component identification
- Quantification of individual components
- Quantify changes during the course of an experiment
- Automated multi-dimensional experiments

Time

Magnetic Field

Concentration / μM

Time / h

- Alkoxy
- Peroxyl
- Alkyl

- One-time factory calibration of the spectrometer
- Automatic storage of all experimental parameters
- No calibration curve required
- Reference-free conversion of the EPR signal to the concentration