

Bruker BioSpin



EMX Plus

● The New EPR Philosophy

think forward

EPR Solutions

Form follows Function



The EMXplus™ is the next generation of the successful Bruker BioSpin EMX spectrometer line. The EMX is well-known for its premium performance in routine EPR research. The new design of the EMXplus reflects the Bruker BioSpin dedication to the heart of an EPR spectrometer's purpose: The analysis of the sample. Simply power-on the EMXplus to start your EPR endeavour. Following self-validation of the devices, the EMXplus is controlled by an up-to-date version of the well-known WinEPR™ user interface platform.

Simply Complete

The new EMXplus Console houses newly developed devices interfaced via Ethernet.

The Perfect Duo I

The new Signal Channel and Field Controller work together seamlessly. They provide practically unlimited resolution in both axes: field and signal intensity.

The Perfect Duo II

For the first time, the EMXplus Signal Channel offers two detection channels in one. Simultaneous dual detection schemes (0° and 90° modulation phase, 1st and 2nd harmonic) are just a mouse click away.

The Perfect Duo III

The next generation EMXplusX™ microwave bridge and the High Sensitivity Resonator are optimally matched for maximum performance.

Selected Key Specifications

The EMXplus provides top-notch sensitivity not only according to the international Weak-Pitch protocol but for virtually every application.

Sensitivity

- S/N up to 2000:1 (PremiumX)
- Nanomolar range aqueous nitroxide detection

Resolution

- Digital Resolution (Field) : 24 bit
- Digital Resolution (Signal): 24 bit

...And More

- Microwave Frequency Counter: standard
- High-Sensitivity Resonator with irradiation window
- Wide range of highly sophisticated options and accessories
- DHCP/Ethernet network

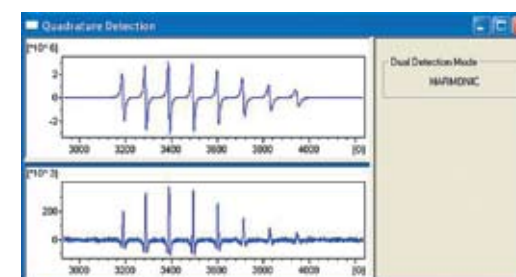
Selected Software Features

GainGuard™

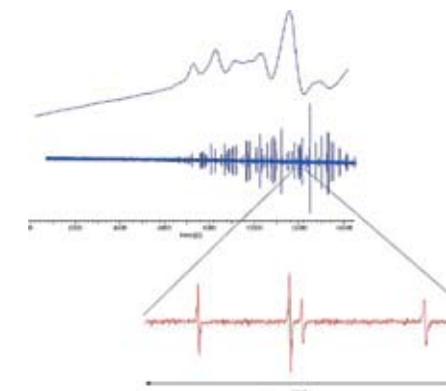
GainGuard will automatically optimize the receiver gain of the EPR spectrum.

g2adjust

Most radicals exhibit a g-factor of around $g = 2$. WinACQ will take care of always setting the magnetic field to the resonance position given by the microwave frequency.



Dual detection (1st & 2nd harmonic) CW-EPR spectra of vanadyl ion with one gain setting.



High resolution, molecular oxygen EPR spectra at high pressure (upper) and low pressure (middle). Zoomed (lower) area of low pressure spectrum shows individual EPR lines.

Boost your System with Accessories from Bruker BioSpin

The interior of the EMX*plus* console is already prepared for your future application demands.

Variable Temperature Control

A newly developed temperature control unit (VTU) can be incorporated into the new EMX*plus* console.

Pulse NMR Teslameter

For precise g-factor determination in combination with the PremiumX microwave counter.

EMX-ENDOR with the EMX*plus*

For the first time, CW-ENDOR experiments can be utilized on EMX Systems.

Service & Support by Bruker BioSpin

The Bruker BioSpin instruments are intended to provide years of trouble-free operation, but should a problem occur, a world-wide network of Service and Application support is ready to respond to your needs. Bruker BioSpin's EPR division offers direct access to Application and Service specialists. In addition, customer training courses are provided on a regular basis.

EMX*Plus* System



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