

**Pulsed Fourier Transform X-band ESR spectrometer  
(Bruker ELEXSYS E580, 2010) with pulse ENDOR (E560 DICE II)  
and ELDOR (E580-400) accessories**



***Operating parameters:***

- Microwave frequency range: 9.2- 9.9 GHz (CW mode)
- RF range and power (for ENDOR measurements): 100kHz - 250 MHz; 150W
- Magnetic field range: 0.03 to 1.45 T
- Sensitivity (CW mode):  $1.2 \times 10^9$  spins/Gauss
- Pulse resolution: 1nsec
- Microwave peak power (Pulse mode only): max. 1kW
- Temperature: 3.8 – 300 K

***Available experiments:***

- CW X-band ESR measurements at various microwave powers and magnetic field sweeping ranges.
- Fourier Transform and electron spin relaxation time measurements by Electron Spin Echo (ESE) and Free Induction Decay (FID) techniques.
- ESEEM and 2D-HYSCORE measurements.
- SECSY and EXSY measurements of the correlations and exchange rates.
- Pulse ENDOR (Electron Nuclear Double Resonance) experiments to measure the hyperfine interaction between nuclear spins and paramagnetic electrons.
- Pulse ELDOR (Electron Double Resonance) and DEER experiments to measure long range distances by electron-electron spin dipolar coupling.