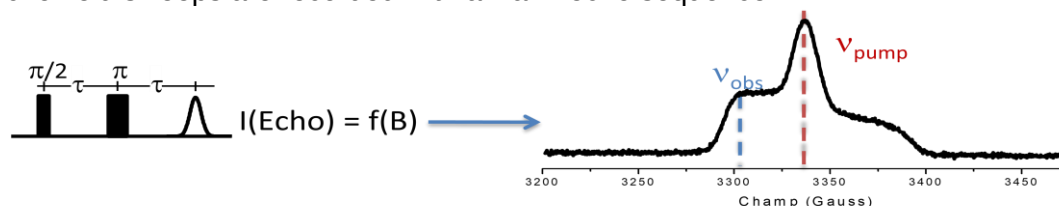


P3 Introduction to pulsed-EPR

Pulsed EPR experiments (Echo field sweep, relaxation time measurements (T_1 and T_2) and nitroxide-nitroxide distance distribution measurements) are recorded on a BRUKER ELEXSYS E580 spectrometer using a standard SQFT Q-band dielectric resonator on a model sample.

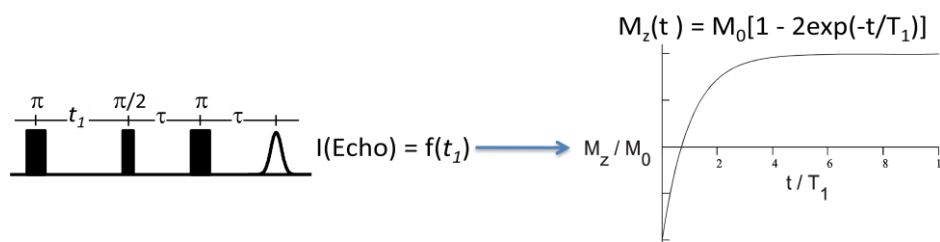
I. Echo field sweep:

Echo field sweeps are recorded with a Hahn echo sequence



II. T_1 measurement (optional):

Curves given access to T_1 are recorded using an Inversion-Recovery sequence where the t_1 time is incremented. Experimental curves are adjusted using a “growing” mono-exponential.



III. T_m (contains T_2) measurement:

Curves given access to T_m are recorded using a spin echo sequence by incrementing the τ time. Experimental curves were adjusted using a “decreasing” mono-exponential.

IV. DEER experiments:

The DEER experiments are performed with the classical four-pulse sequence (Panier & al., JMR, 142, 331–340 (2000) doi:10.1006/jmre.1999.1944). The signal processing is done using the DeerAnalysis software (Jeschke & al., Appl. Magn. Reson. 2006, 30, 473–498) under Matlab to obtain the distance distribution.

