

Interpretation of EPR spectra of spin labeled membranes

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Spin labeling became in last years one of the most popular and valuable spectroscopic techniques used in biophysics and especially in membrane research. The electron paramagnetic resonance spectra of nitroxide spin labels have provided novel information about kinetic and structural properties of biological membranes and model system (phospholipid bilayers). In this review paper the theoretical background to EPR spectra of spin labels in membranes is given. Various methods allowing for qualitative and quantitative interpretation of such spectra are described. Computer simulation of EPR spectra in effective spin hamiltonian approximation is also discussed.