Current Topics in Biophysics (Zagadnienia Biofizyki Współczesnej) vol. 18 (1), 1994, 54-58

Membrane elektroporation: EPR estimation of pore resealing time

Łukasz Salwiński, Wojciech Froncisz

It is possible to record electric field induced changes in permeability of an erythrocyte membrane upon modification of the EPR flat cell. The use of spin labels with different linewidths allows for separation of chromium oxalate diffusion and changes of erythrocyte volume. The time required for pores to shrink to the size needed to stop permeation of chromium oxalate was estimated to be 1.5-2 ms.