

Current Topics in Biophysics (Zagadnienia Biofizyki Współczesnej) vol. 20 (supplement), 1996, 60-65

Nitroxide reduction in human red blood cells

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The rate of the reduction of different types of nitroxides: piperidine, pyrroline and pyrrolidine series was investigated. The effects of temperature and thiol group inhibitors on the rate of nitroxide reduction in red blood cells were studied. The activation energies for Tempo and Tempol were estimated. Thiol group inhibitors (N-ethylmaleimide and *p*-chloromercuribenzoate) decreased the rate of the reduction of unchanged molecules, Tempo and Tempol, in red blood cells.