

Luminol-dependent chemiluminescence emitted in reactions of haemoglobins with T-butyl hydroperoxide

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The process of free radicals generation in the reaction of t-BOOH with oxyhaemoglobin and methaemoglobin has been detected by the luminol-dependent chemiluminescence. The radical generating processes are different in case of oxyHb but the rate of radicals formation is higher for metHb. Reduced glutathione (GSH) inhibits radical generation in both cases. For metHb, absorption spectra reveal the existence of intermediates between substrates and products, similar to hemichromes.