

**Structure and function of myoglobin and hemoglobin. Molecular mechanism of oxygen binding - Struktura i funkcja mioglobiny i hemoglobiny. Molekularny mechanizm wiązania tlenu**

Zofia Szweda-Lewandowska

The review presents the stereochemical mechanism of oxygen binding by tetrameric hemoglobin and monomeric myoglobin molecules. The process of cooperative oxygen binding has been described with a special emphasis on the causes of low oxygen affinity of hemoglobin in the T state of its high affinity in the R state, on the effect of globin on the reactivity of heme and on the elucidation of structural mechanism of the T→R transition. The understanding of cooperative effects is facilitated by presented data on the reactivity of hemes in the absence of intersubunit interactions from model iron porphyrins and myoglobin. Structural data presented in the review are only those indispensable for the understanding of stereochemistry of oxygen binding.