Valery Kochev. BIOSENSORS WITH ELECTROCHEMICAL TRANSDUCTION. AMPERO-METRIC SENSORS

This work is devoted to biosensors with amperometric signal transduction. In the previous first part, the attention was focused on the potentiometric sensors. Here some basic elements and concepts of operation of amperometric biosensors are regarded. The reactions of most commonly used enzymes are clarified from biochemical and electrochemical viewpoint. The evolution of the detecting schemes toward a generation of sensors with direct electron transfer is pointed out. Some features concerning construction and future implementation are discussed.

Keywords: amperometric biosensors, redox reactions, voltammetry, enzyme electrode, heterogeneous electron transfer, mediators

***PACS numbers*:** 87.90.+y