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Voltammetric determination of the components of biospecific deoxyribonucleic acid (DNA)-DNA antibody interaction as their Pt(II) complexes

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Abstract

A biochemical sensor based on a stationary mercury film electrode and a cellulose nitrate film containing either DNA molecules or molecules of antibodies to DNA was developed to determine the concentration of DNA (antibodies to DNA) and to diagnose autoimmune diseases. The peak currents of catalytic hydrogen liberation upon the formation of Pt(II)-DNA (antibodies to DNA) complexes were used as the analytical signal. The detection limits were 0.075 and 10 $\mu\text{g/mL}$ for antibodies and DNA, respectively. © 1998 MAEe Cyrillic signK Hayka/Interperiodica Publishing.
