

عنوان مقاله:

Cholesterol Biosensor Based on Immobilization of Cholesterol Oxidase on a Gold–Platinum Bimetallic Nanoparticles
Modified Glassy Carbon Electrode

محل انتشار:

سومین کنفرانس نانوساختارها (سال: 1388)

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خلاصه مقاله:

A novel cholesterol biosensor was constructed, based on the immobilization of cholesterol oxidase (COx) with cross-linking in the matrix of biopolymer chitosan (CS) on a glassy carbon electrode (GCE), which was modified with gold–platinum alloy nanoparticles (Au–Pt NPs) by electrodeposition in CS film. The properties of Au–Pt NPs/CS were characterized by scan electron microscopy (SEM), cyclic voltammetry (CV). Primary study indicated that Au–Pt NPs had a better synergistic electrocatalytic effect on the determination of cholesterol than did Au NPs/CS or Pt NPs/CS at a low applied potential window.

کلمات کلیدی:

cholesterol; Au–Pt alloy nanoparticles; Chitosan; Electrodeposition; Biosensor

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