

Application of GO/Co/chitosan mediator the film type of enzymatic fuel cell

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Enzyme based bioelectronics have attracted interesting in recent years because of their applications on implantable biomedical devices. Glucose oxidase (GOx) and Laccase (Lac) were immobilized by covalent binding to the carboxyl groups on the electrode, and the GOx, Lac immobilized electrode. The enzyme electrodes were used as an anode and cathode in a glucose fuel cell. On the previous work, the enzyme fuel cell (EFC) was improved based on GO/Co/chitosan mediator. In this study, the electrochemical EFC system was developed with a thin film structure. A large surface area of the EFC was considered to afford effective environment for the enzyme reaction and electron transfer. The thin film type EFC was established with the aluminum carbon (AlC) and gold (Au) electrode.