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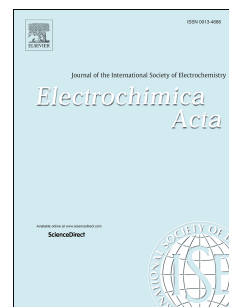
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# Coral-like Cu-Co-mixed oxide for stable electro-properties of glucose determination

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## Abstract

Nanowire-constructed coral-like spinel Cu-Co-mixed oxides were synthesized via hydrothermal reaction. Owing to the unique nanoarchitecture, the Cu-Co-O provide abundant electro-active sites and channels for ions transfer. And also because of the synergistic effect of copper and cobalt ions in the spinel crystal, the electrode modified with the Cu-Co-O material shows prominent electrocatalytic performance toward the oxidation of glucose. The rapid amperometric response to glucose was observed with a high sensitivity ( $8838.26 \mu\text{A cm}^{-2} \text{ mM}^{-1}$ ), low detection limit ( $0.5 \mu\text{mol/L}$ ) and fast response (within 1 s). The mild synthesis method and outstanding electrocatalytic performance make it promising for the reliable and durable determination of glucose.

**Key words:** Spinel, Coral-like,  $\text{CuCo}_2\text{O}_4$ , Glucose, Sensor

## 1. Introduction

From biomedical application and ecological approaches, it is urgent to develop a reliable method to detect glucose rapidly and accurately [1-3]. Despite that the

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