

**DEVELOPMENT OF AN ELECTROCHEMICAL SENSOR
FOR COPPER (II) ANALYSIS**

A PROJECT REPORT PRESENTED BY

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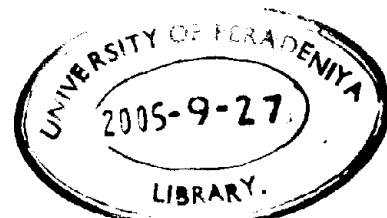
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DEVELOPMENT OF AN ELECTROCHEMICAL SENSOR FOR COPPER (II) ANALYSIS

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Copper is one of the most useful and common metals in existence. Unfortunately, it has also become environmentally hazardous in the latter decades of the 20th century. Copper is a common pollutant in several industrial and laboratory discharges and in plumbing systems, where copper pipes, fittings and other components are found. Unlike many other pollutants, copper is very difficult to detect without sophisticated lab equipments. The conventional methods used for the determination of copper (II) fail at trace levels. Recently developed methods that are adapted for this purpose depend entirely upon stripping voltammetry (SV). This requires a preconcentration step followed by an electrochemical detection. Alizarin as a cyclic voltammetric sensor has shown a good selectivity and sensitivity at sub-micromolar concentration range in the detection of copper (II).