Short Communication

The Qualitative Electrochemical Determination of Multiple Components in Seaweed Fertilizer

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Seaweed fertilizer refers to fertilizer created by extracting the active ingredients from raw seaweed that is then applied to plants as a nutrient source to promote growth and increase yield. A quick method of analysing seaweed fertilizer quality has practical value. In this work, we established a simple electrochemical method for analysing commercial seaweed fertilizer by comparing the contributions of each electro-active ingredient. The electrochemical profiles of 3-hydroxyphenylacetic acid, gibberellin, lycine, abscisic acid, indole-3-acetic acid and zeatin were first recorded in a database. Then, the electrochemical profiles of four commercial seaweed fertilizers were recorded and examined to analyse the contribution of each ingredient.

Keywords: Seaweed fertilizer; Electrochemical analysis; Differential pulse voltammetry; Electrochemical sensor; Fingerprint

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