

## QUANTIFICATION OF ORGANOPHOSPHORUS PESTICIDE AZAMETHIPHOS USING ELECTROANALYTICAL APPROACH

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### ABSTRACT

In this work, for the first time, we proposed electrochemical behavior and development of analytical procedure for quantification of pesticide azamethiphos, using boron doped diamond (BDD) electrode. It was found that azamethiphos electrochemical behavior is irreversible oxidation at potential of around 1.70 V, in 1M nitric acid. Square wave voltammetric technique was most appropriate for azamethiphos quantification. Under optimized experimental conditions linear working range from 2 to 100  $\mu\text{M}$  was estimated with detection limit of 1.38  $\mu\text{M}$ . Negligible effect of possible interfering compound was observed. Obtained results clearly show that developed analytical methodology can be adequate replacement for the, up to date, used methods for detection of organophosphorous pesticide.