

## **Abstract**

The work presented here describes a novel and efficient method of electrode modification for the purpose of detection of pesticide in an organic solvent. A platinum electrode was resealed using an epoxy resin as the bonding material so that it can be immersed for a longer duration in an organic solvent. The enzyme acetylcholinesterase was electroimmobilized onto this electrode using polypyrrole as the support matrix. The epoxy resin was found to be an excellent bonding material for platinum electrode and it showed a very high degree of resistance towards electrochemical and organic solvent induced corrosion. The enzyme electrode was then applied for detection and quantification of an organo-carbamate pesticide carbofuran in 5% acetonitrile. Carbofuran concentration down to 10 ppb was successfully determined.