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Development and validation of an analytical method for the determination of Fenaminophos residues in tobacco

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Abstract : A simple, quick, sensitive, accurate and precise method using gas chromatography has been developed for the determination of fenamiphos, fenamiphos sulfoxide and fenamiphos sulfone. The detection was carried out using a nitrogen-phosphorus detector. The column temperature was maintained at 230 °C while the temperature of the injection port and detector were maintained at 270 °C and 300 °C respectively. The method was validated by assessing parameters linearity, reproducibility, accuracy, recovery and repeatability. The percentage recovery for fenamiphos and its metabolites was more than 80 % with RSD values less than 2 %.

Key Words : Fenamiphos, Gas chromatography, Validation, Recovery.

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