



Abstract:

Every year arson cases hit the vast economy of Pakistan. I try to explore the arson investigation by using the fire debris samples from Lahore city. A specific type of mettle can be used to collect and store the fire debris samples for further analysis. The analytical analysis of these samples is carried out on Gas Chromatography Mass Spectrometer in Chemistry department of Government College University Lahore. The vapors of accelerants from fire debris are collected by using direct headspace method, in which the vapors are collected by a syringe directly from heated Can containing fire debris. The collected vapors are inserted in Gas Chromatograph with the help of a specific syringe. The separation of accelerants is carried out in heated column on the bases of their retention times, which are later detected by Mass Spectrometer. The following accelerants are detected in my research work;

Toluene, 2,2,4- Trimethyl pentanol, Ethyl benzene, Xylene (o, p, m), 1,2,4- Trimethyl benzene, 1,2,3- Trimethyl benzene, Undecane, Dodecane, Pentadecane, Eicosane, Tetradecane, Hexadecane, Heneicosane, Isopropyl Alcohol and Methyl Alcohol.