

Analysis Methods and Qualitative Diagnosis Chromatographic for Mixture of Narcotic Substances in Seized Materials

Abstract

In summary, the process of analysis involved in the detection and qualitative assessment of Narcotic substances includes three stages, as the first detection using the spot color under the Microscope using (20% $\text{HC}_2\text{H}_3\text{O}_2$ and Platinic Chloride) as detector where it interacts with the molecule and gives a specific color of that molecule which can be detected clearly by an Optical Microscope with strength Zoom 20 Mega pixels and comparing the obtained images with photos of standard models. This method is important in the detection of the first Narcotic substances. The other detection involves HPLC-UV technique using the (Arcus EP-C18; $5\mu\text{m}$, 4.5×250 mm) column with a flow rate 1 ml/min at 25°C and wavelength 275 nm where the number of samples in the mixture of Narcotics is isolated and diagnosis of the initial detection is confirmed by the number of peaks in this chromatogram So, the number of peaks in this method is five peaks indicating clearly the number of materials in the mix. The third detection was conducted by GC-Mass technology and included the separation of chromatography in the first phase and then estimate the mass spectrum of each material in the mix using the Instrument (Gas Chromatography-mass, MSDCHEM\1\METHODS\MUAFAQ.M) for the determination of (M/Z Negative Ions) at range Temperature ($70-325$) $^\circ\text{C}$. The results showed the emergence of five clear peaks with the values of the molecular mass of each compound as indicated by the time of the warming of each appearance peak, also compare the results that obtained with the values of the reference library of the Instrument, where found a recovery by 91-95%.