Abstract

The simultaneous detection of Toxic Aryl Amines in complex matrices such as Textile, Leather, and Dyes are still a changeling task in Chromatography in particularly with respect of separation, efficiency, sensitivity and cost of analysis.

In our study the GC-MASS study of 20 Toxic Aryl Amines were optimised. The run time could be reduced by 48 minute to less than 30 minute by improving separation efficiency at the same time.

It could be seen that not only the separation of Toxic Aryl Amines can be improved but also separation of o, m, p-Chloraniline and o,m, p-Touliidine was achieved.

This concept can be incorporated for much kind application.

In the recent years the awareness of safe environment has been increased. Synthetic dyestuff, which are releasing toxic aryl amines. The toxic aryl amines are carcinogenic in nature.

Many empirical studies have been carried out on development for test method for toxic aryl amines. The studies have been carried out on Natural Dyes as a possible substitute of Synthetic dyes.

The thesis is an attempt to develop the test method, which is easy, economical and rapid, and develop various dyes from Natural resources.

India is holding 60% of the world textile market, but due to less awareness of chemical properties of dyestuff and pigment, it is going to be decreased. In this thesis is an attempt to develop a rapid, easy & economical test method which can be used at any dye industries, whether small, medium or big for preliminary and final screening of the production the study of natural dye, various plant material have been taken for study. The mechanism of dyeing with various type of natural dye, standardizing the method of extraction of natural dye from plant material and purification of coloring matter and comprehensive review of their application.

The main attempt of this thesis in Natural dye part to optimize the extraction condition parameter to obtain pure dye or coloring matter.