HPTLC Detection and Identification of Heroin (Diacetyl morphine) in Forensic samples. Vaijanath G. Dongre. And Vilas W. Kamble

Dept. of Chemistry, Dr babasaheb Ambedkar Marathwada University Aurangabad. Maharastra , India.

A new spray reagent consisting of 1% (w/v) aqueous solution of Ferric Chloride and 1% (w/v) acidified alcoholic solution of 2-2'- dipyridyl has been developed for the detection and identification of Heroin (diacetyl morphine). A red colored spot was observed for heroin, when the Hptlc plate is sprayed with this reagent and heated at 100 oC .Similar spots are observed for morphine, codeine and thebaine (the opiates containing phenanthrene nucleus.) However, it did not react with the opiates containing isoquinoline nucleus, e.g. Papaverine and narcotine. The reagent is sensitive and highly specific and can be used for the detection and identification of heroin in forensic samples referred to laboratories .It may also be used for testing biological materials since metabolites of heroin are monoacetyl morphine and morphine.