

A Novel and fast method developed for analysis of Norephedrine in Forensic samples using HPTLC MS

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Abstract:-

Forensic Science Laboratories routinely analyze various Narcotic and Psychotropic substances (NDPS) in seized samples forwarded by investigating Agencies. Over the years several methods have been adopted for identification of various constituents in the seized drugs. Recently, analysis of precursor chemicals has been a major challenge for Forensic Analyst. Precursors are easily available as over the counter medicines and also in some dietary supplements. As new and new synthetic drugs are finding space in the market, so is their trade. Norephedrine falls into this category. Clandestine laboratories can effortlessly manufacture highly stimulant synthetic drug Amphetamine from precursors and hence provide easily accessibility to addicts. Gas Chromatography – Mass Spectroscopy (GC-MS) is universally used in analysis and identification of drugs but the analyst faces problem when it comes to isomeric compounds. Time consuming extraction and derivatisation process is involved in sample preparation. Hence, a study was conducted on Seized samples with the help of hyphenated technique High Performance Thin Layer Chromatography – Mass Spectroscopy (HPTLC-MS). The instrument yielded reliable and reproducible results with quick, easy sample preparation method without derivatisation. This will also aid Forensic scientist to identify even isomers with great ease.

Keywords:-Forensic Science, Precursors, synthetic drugs, Norephedrine, amphetamines, HPTLC-MS.

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