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A 'opium' 'cannabinoid' hashish comp. 'LSD' benzphetamine 'amphetamine' 'ephedrine' 'atropine' methamphetamine etc. quant.det. by high-pressure liquid 'chromatography' congress /V/ /XXVI/ /XXXII/

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Wheals B B /London,U.K./

Forensic Applications of Liquid Chromatography.

Some HPLC methods of analysis of illicit drug samples for forensic purposes are reviewed.

The sensitivities and operating conditions of the columns were discussed and amplified by the Authors' own work. Raw opium samples could be analyzed and when a column of Partisil 5 modified with octadeyltrichlorosilane was used with a MeOH-H_2SO_4 mobile phase at a flow rate of 2 ml/min and pressure of 3000 psi and UV detector of 254 nm cannabidolic acid, cannabinol, Δ^9-THC, cannabinolic acid and its Δ^8 -analog and cannabichromenic acid were detected in two cannabis resin samples. The presence of LSD in microdots could be confirmed by HPLC of a MeOH extract using MeOH-$NH_4(CO_3)_2$ eluant. LSD could be separated from ergot alkaloids on a silica column and Chinese Heroin analyzed similarly using MeOH-NH_3-NH_4NO_3 solvent. Phenethylamines could be detected on Partisil 5 columns with MeOH-NH_3-NH_4NO_3 eluant and benzphetamine, amphetamine, ephedrine, atropine and methylamphetamine were detected in illicit preparations.

Applications to analysis of soil, engine oil and bitumen paint samples were also discussed.

5 Fig. 8 Ref.

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