



D58 The Characterization of Heroin Drugs Seized in Taiwan

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After attending this presentation, attendees will gain knowledge on the different regions, seasons, and planting schemes for opium cultivation bringing about basic changes of the ratio of codeine to morphine, so it is practicable to trace back to illicit heroin origins including planting origins, smuggling origins or black market origins.

This presentation will impact the forensic science community by discussing the probative value to determine the origins of different heroin seizures, even if there is no information about real opium planting or possessing origins.

Eighty heroin seizures of over 100 gram in Taiwan during the period of 2006-2008 were analyzed by gas chromatography with a flame ionization detector (GC-FID). In contrast to the methods of trace impurities identification by GC-FID, the ratio of total morphine content to total codeine content were calculated for each heroin seizure. The total morphine content refers to the amount of heroin and morphine related impurities converted back to morphine, and the total codeine content refers to the amount of codeine and 6-acetylcodeine. Different region, season, and planting schemes for opium cultivation bring about basic changes of the ratio of codeine to morphine, so it is practicable to trace back to illicit heroin origins including planting origins, smuggling origins or black market origins. Even if there are no information about real opium planting or possessing origins, the probative value to determine the origins of different heroin seizures is very valuable in suit pending.

Forensic Science, Heroin, Characterization