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On January 11th 2006, Albert Hofmann celebrated his 100th birthday. On this occasion the largest conference ever held on psychedelic drugs took place in Basel. Newspapers, radio and television brought hallucinogens into the limelight. This contribution presents a brief overview regarding history, properties and use of LSD, Peyote and Magic Mushrooms. The cultivation of magic mushrooms appears to be relatively simple. Cases of importation of mycelium or spores are known. There is evidence of user scenes of psilocybe mushrooms in Switzerland. Therefore there is a need for reliable forensic chemical analyses. In this contribution the analytical methods used in our laboratory are also reviewed: Dried mushroom samples and LSD trips are subjected to screening analysis by ion mobility spectrometry (IMS) without any sample preparation. For LSD, confirmation and quantitative analyses are performed by instrumental thin layer chromatography with fluorescence detection (densitometry) and for psilocin and psilocybin by high performance liquid chromatography with diode array detection (HPLC-DAD). Screening and confirmation for mescaline after liquid/liquid extraction of the dried cacti is performed by gas chromatography-mass spectrometry (GC-MS).

KEYWORDS: *Albert Hofmann, Hallucinogens, LSD, Lysergic acid diethylamide, Mescaline, Psilocybin, Psilocin, Magic mushrooms, Peyote, Ion mobility spectrometry, Instrumental thin layer chromatography.*

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