



ASCLD FRC Lightning Talks

Fentanyl Signature Research

Thursday July 15th, 2021, 1:00 EST, WebEx

Register at: <https://www.ascld.org/forensic-research-committee/>



Chemical Attribution of Fentanyl from Biomedical Samples

Mirjam de Bruin-Hoegée, PhD Candidate, University of Amsterdam

The possibility of impurity profiling in human biological samples was explored using the potent opioid fentanyl. Synthesis-specific marker compounds were identified pre- and post-metabolism and could be detected up to levels relevant in forensic casework.



Characterization of Vaporous Targets from Non-Contact Detection of Fentanyl and Related Opioids

Lauryn DeGreeff, Research Chemist, U.S. Naval Research Laboratory

A comparative headspace analysis of fentanyl materials, including pharmaceutical-grade, confiscated and adulterated materials, and related analogs was carried out. Common vaporous compounds were identified as potential targets for future non-contact vapor detection applications.



The Influence of Chemical Modifications on the Fragmentation of Fentanyl Analogs

J. Tyler Davidson, Associate Professor, Sam Houston State University

This presentation describes an approach for the identification of the sites of modification to the core fentanyl structure for fentanyl analogs based on the observed product ion spectra using electrospray ionization tandem mass spectrometry (ESI-MS/MS).