ASCLD FRC Lightning Talks

Novel Analysis of Latent Fingerprints

Thursday April 1st, 2021, 1:00 EST, WebEx

Register at: https://www.ascld.org/lightning-talks-registration/

Mass Spectrometry Applied to Fingerprints : Enhancing More Prints and Determination of Drug Use

Melanie Bailey, Research Scientist, University of Surrey

It is becoming increasingly evident that a fingerprint can convey more than just its ridge detail. We have been working with drug users in hospital rehabilitation clinics and forensics providers to explore whether a fingerprint can be used to establish whether a suspect has used or touched illicit drugs. We will also show how imaging mass spectrometry tools can help to solve the puzzle. We will also show how these tools can be applied to the analysis of fingerprints that cannot be successfully developed using traditional methods.

2D + 3D Optical Approaches to Latent Fingermark Aging Studies

Josep De Alcaraz-Fossoul, Assistant Professor, University of New Haven

In this presentation, a combined approach of 2D and 3D optical approaches to latent fingermark age studies will be discussed. It will include quantitative and qualitative data analyses and tentative crime scene applications of the models designed.

MALDI-MS Analysis of Fingerprint Triacylglycerols for Forensic Evidence

Young-Jin Lee, Professor, Iowa State University

Triacylglycerols are compounds that are abundant in fingerprints and can readily be detected by MALDI-MS. In this presentation, the potential forensic usefulness of triacylglycerol analysis in determining fingerprint age and individual health, exercise, and/or diet will be discussed and demonstrated.