



Criminalistics Section – 2006

B22 Multiplexed Forensic Biomarker Analysis of Body Fluids and Stains

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After attending this presentation, attendees will gain an awareness of new biotechnology applied to forensics.

This presentation will impact the forensic community and/or humanity by demonstrating the increased efficiency and quality of evidentiary body fluid/stain analysis and characterization.

Efficient characterization of biological stains, with instrumentation tailored for automation, is of interest to the forensic community. While technology to analyze DNA from a stain cutting has progressed remarkably in the last decade, body fluid stain identification/characterization still relies on technology pre-dating the development of PCR based analysis or recently developed immunological methods, requiring relatively large amounts of evidentiary material and labor intensive techniques. Results from a pilot study investigating the feasibility of applying Surface Plasmon Resonance (SPR) to multiplex forensic biomarker analysis will be presented. Minimal amounts of evidentiary material are necessary to identify common body fluids of forensic importance with this approach.

SPR, Immunoassay, Body Fluid