

National Institute of Justice

Award Title: Validation of Forensic Characterization and Chemical Identification of Dyes Extracted from Millimeter-length Fibers

Award Description:

The objective of this proposal is to validate analytical methods for the forensic chemical characterization of dyes extracted from trace evidence fibers, thereby enhancing discrimination for comparison of known and questioned casework fibers. Separation and detection of individual dye components provides a qualitative and semi-quantitative fiber dye "fingerprint". Determining the number and relative amounts of dyes present, and characterizing those dyes at the molecular level by mass spectrometry, offers an entirely new level of discrimination. This research will directly aid in the understanding the scientific basis, establishing the validity of new discriminating methods for forensic fiber examinations, and translating those methods in forensic laboratory practice.

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Awardee Name: University of South Carolina
Research Foundation

Award Number: 2010-DN-BX-K245

Solicitation Title: NIJ FY 10 Research and
Development on Instrumental Analysis for Forensic
Science Applications

Fiscal Year: 2010

Amount: \$451,336.00

Earmark: No

Recovery Act: No

State/Territory: SC

County: Richland

Congressional District: 06

Award Status: Open