



## Criminalistics Section – 2010

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### A3 Traceable Standards to Ensure National Uniformity in Analysis Results

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After attending this presentation, attendees will be able to evaluate their laboratory methodology or protocols relative to, implementation of material standards, identifying existing gaps in their use, and NIST standard reference material production.

This presentation will impact the forensic science community by demonstrating the application of the National Institute of Standards and Technology (NIST) standard reference materials (SRMs) to forensic examinations.

This presentation will provoke the forensic community to re-evaluate their respective analysis process and determine if a material standard should be in place. The first step requires understanding of standards, the difference between paper and material, and how these standards are perceived by the community. Standards Development Organizations (SDOs) will briefly be discussed to provide a framework of understanding between this type of activity and the development of material standards. NIST's foresight created several projects that identified critical material standards and their placement in the laboratory process. Details on these projects will be provided offering insight into two forensic disciplines' methodology, meddlesome human factors, and the respective changes that dramatically improved test results and national uniformity.

The National Academy of Sciences (NAS) Report, *Strengthening Forensic Science in the United States: A Path Forward* released on February 18, 2009, offers several recommendations to improve accuracy, reliability, and validity in the advancement of forensic science. As a result, NIST's involvement in these recommendations relative to standards, validation, and proficiency testing will increase providing an opportunity for information sharing at this presentation. It is recommended that the forensic science community be familiar with the NAS Report.

**Standards, SDO, NIST**