



Questioned Documents Section - 2015

J9 Using Video Spectral Comparator (VSC) to Examine Documents Previously Subjected to Latent Print Examination

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The goal of this presentation is to explain the use of the VSC to possibly uncover evidence from documents that have been subjected to latent print examination prior to being examined by a document examiner.

This presentation will impact the forensic science community by providing attendees with a better understanding of the illustrative view of study done in order to obtain evidence using the VSC on chemically treated papers.

In order to prevent irreparable damage to a document by other disciplines in the course of processing, forensic document examiners often request that they have access to documents prior to them being submitted for other more invasive procedures. Several other forensic disciplines use potentially destructive methods; DNA, serology, and latent print examinations all use methods that can hinder a subsequent document examination. This presentation will focus on latent print evidence examinations prior to submission for document examination. It will further explore one way to counter negative effects and still complete an efficient examination.

A common process in latent prints is the use of ninhydrin for latent print development. The chemicals contained in ninhydrin are destructive to documents in several ways, one of which is that the development of indented writing is highly unlikely once the paper has been submerged in any liquid, including ninhydrin. The paper will absorb the liquid and “puff out,” destroying any indentations that may have been present. Another way latent print processing can hinder document examination is when latent prints are developed, the purplish hue of the ninhydrin dye can hinder the forensic document examiner’s view of intricate details of the writing, such as pen lifts and striations. Ninhydrin can also cause certain types of inks to bleed. This bleeding can cause staining of the text on both sides of the document and could prevent forensic document examiners from being able to effectively and efficiently examine the document.

This presentation will focus on the process used to develop latent prints on paper, with special attention given to ninhydrin and the effects it has on ink. There will be a demonstration of both controlled samples and evidentiary documents examined in the lab with an explanation of what occurred when they were examined under various settings of the VSC. The goal of this presentation is to explore what can be done to recover evidence from a document when a questioned document examination is an afterthought. It will further raise awareness of how to use the VSC to recover evidence that may not otherwise have been observable. The inspiration for this project stems from a case that was received in the lab, after the document had already been processed with ninhydrin. The ink had run severely and it was extremely hard to read what was previously written on the document. After placing the document under the VSC and using various settings, much of the original text was able to be read and intricate details were observed.

VSC, Latents, Documents