

Abstracts

Volume 13, Number 1

Decipherment of Counterfeit Traveler's Checks

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Traveler's checks are popular among visitors to Saudi Arabia during pilgrimage (Hajj) time because they are more secure than cash and easy to exchange with local money at local banks. This paper reveals the decipherment of 3 groups of fraudulent traveler's checks that were caught in local banks during Hajj.

Evaluation of Loss of Phenoxyethanol from a Ballpoint Pen Ink over Time by GC-MS Depending on the Location of the Signature on the Document

Magdalena Ezcurra G., Juan M. G. Góngora, Itxaso Maguregui, and Rosa Alonso

Quantification of the loss of phenoxyethanol (PE) once an ink is deposited on the paper is 1 of the methods currently used to determine the relative ages of inks on paper. This work reports an in-depth study on differences in the aging curves, based on the loss of PE, between an ink placed on the 1st page or an ink placed on an internal page of the document. A possible cross-contamination in the values of PE has been also studied, taking into account the amount of PE absorbed and retained by the paper fibres in the pages preceding the page on which the signature is placed. Gas chromatography-mass spectrometry has been used to evaluate the PE.

Using Adobe Photomerge™ for Demonstrative Evidence

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Demonstrative evidence is of utmost importance to forensic document examiners. This paper describes the use of Adobe Photomerge™ as a means of producing large charts from a combination of smaller images. The paper gives a step-by-step description, including caveats, and gives a case example where the technique was used in court.

Fracture Match: A Validation Study of Paper Tears, Part 1

Todd W. Welch, Charles R. Bacon PhD, Mary K. Bacon MS, Sarah A. Bohn

Forensic document examiners are frequently asked to analyze evidence that requires the identification of a torn document by reconstruction. The reconstruction and identification of a rip or tear is also known as a fracture match. Fracture match examinations have important forensic applications in that they may establish a relationship between 1) the suspect and the crime scene, 2) the victim and the crime scene, or 3) the suspect and victim. Be it a ransom note torn from a pad of paper, pieces of a gum wrapper containing drugs, or a spent paper match, these products are often forwarded to the forensic document examiner, who endeavors to determine if the separated items are associated.

In this study, the authors examined single sheets of paper torn under controlled conditions to investigate the uniqueness of their torn edges. The results of the study showed that the fractured edges of single sheets of paper torn under controlled conditions were unique. A 4-point measurement methodology, used to determine the tear profile, was validated statistically.