



Questioned Documents Section – 2008

J3 Micro-Spectroscopic Examination of Writing Inks

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The goal of this presentation is to inform the audience of new techniques for the examination of writing ink.

The availability of new technology or the availability of technology of which one is unaware will impact the forensic community by increasing the efficiency and/or completeness of forensic examinations.

Forensic science practitioners are always faced with the problem of "trace" amounts of materials upon which their analysis relies. With the advent of micro-spectroscopic techniques based on fiber optic instrumentation, it is prudent to investigate the applicability of these techniques to the examination of materials commonly found in forensic matters. One such class of materials is writing inks. Previous work that reported the characterization of writing inks and measured changes in the writing ink due to the age of the writing have used spectroscopic methodologies. This work will investigate the use of micro-spectroscopic methodologies as a replacement or improvement of the reported techniques that are presently in use. Adherence to spectroscopic principles, determination of detection limits and examples of practical applications will be reported on a wide range of different writing ink types and formulations. Clear applicability is demonstrated for the use of these types of instrumentation for the examination of writing ink.

Ink Analysis, Micro-Spectroscopy, Ink Dating