B138 Deep UV Microspectroscopy of Textile Fibers

Paul C. Martin, MS, PhD*, CRAIC Technologies, 2400 North Lincoln Avenue, Altadena, CA

This presentation is a tutorial of the unique identifiers found in the deep UV spectra of textile fibers associated with trace evidence.

The ultraviolet region of the spectrum has some of the most distinguishing characteristics for textile fibers. This includes absorbance from the additives, brighteners, colorants, and the fiber itself. The purpose of this paper is to show the results of a novel analysis of a series of commonly occurring textile fibers. The deep UV spectra of samples as small as 4 microns are analyzed by measuring the transmission of several undyed fibers. The results are compared and discussed.

Microspectroscopy, UV, Fiber