The Use of Microspectrophotometry in the Examination of Paints

REFERENCE: Cousins DR: The use of microspectrophotometry in the examination of paints; *Forensic Sci Rev* 1:141; 1989.

ABSTRACT: With a brief introduction to paint, pigments, colour measurement and microspectrophotometers, this article reviews some of the early applications of microspectrophotometric techniques in forensic science. Practical problems involved in making colour measurements are considered together with the experimental procedures which have been used. The uses which forensic scientists have made of both visible reflectance spectra and colour measurements in casework are discussed, and the advantages over visual comparisons are illustrated. Emphasis is also placed on the use of colour measurements on paint samples recovered from the scene for identifying vehicles involved in hit-and-run accidents. This approach shows advantages in speed as well as specificity over visual comparison. Areas which are likely to prove valuable in the future are identified. It seems likely that the use of microtomed thin sections will extend the range of applications of microspectrophotometric techniques for paint examination.

Key Words: Colour, microspectrophotometry, paint.