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Police Science Technical Abstracts and Notes

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POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

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Heredity in Fingerprints—Gaye Shahan, *Identification News*, 20(4): 1 (April 1970) Genetics play a definite role in fingerprint pattern development. This study shows certain reoccurrences in successive generations which can be attributed to heredity. (GDM)

Radar Bullet Tracer—George E. Toles, *Guns*, 15(9-9): 48-49 (September 1969). An experimental radar technique has been devised which may offer a means of sniper detection to police agencies. Using Doppler radar techniques, the system detects incoming projectiles of high velocity and provides range and trajectory information. (GDM)

The Polygraph Revisited: An Argument for Admissibility—Albert S. Dabrowski, *Criminal Law Bulletin*, 6(2): 63-80 (March 1970). The author presents his case for the admissibility of polygraph results in criminal cases. Included are the criteria under which he feels such evidence should be used. (GDM)

Police Academies Can Teach the Recognition and Preservation of Trace Evidence—James W. Osterburg, *Police*, 14(4): 54-55 (March-April 1970). A course outline is offered which the author feels will result in an awareness of trace evidence

by the criminal investigator resulting in a greater degree of professionalism. (GDM)

The National Institute of Police Laboratory Operations—Henry L. Guttentplan, *Police*, 14(4): 39-49 (March-April 1970). A meeting of laboratory administrators in the fall of 1968 resulted in a series of recommendations directed toward the improvement of laboratory operations. These recommendations as well as details of the John Jay Study are presented. (GDM)

Applied Thin-Layer Chromatography in Document Examination—Joseph Tholl, *Police*, 14(4): 6-16 (March-April 1970). TLC has become a most useful method of ink analysis in document cases. Presented are a series of methods and TLC systems useful in the examination of inks. Included are typewriter inks and pencil pigments. (GDM)

Identification of Pills—S. J. Kirby, *R.C.M.P. Gazette*, 32(2): 18-19 (February 1970). This brief article discusses the use of tool and die marks on tables as a means of identifying the source of illicit drugs. (GDM)

New System for Sub-Classification of the 10 Loop Group—Parduman Singh, *International Criminal Police Review*, 233: 281-283 (December 1969). The author outlines a method of sub-classification which expands the 16 combinations of the Henry System to a total of 4096 combinations. This extension greatly reduces the number of cards now found in many files using the Henry System. (GDM)

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Drug Evidence and Fingerprints—Robert D. Olsen, Sr., *Identification News*, 20(3): 1 (March 1970). Emphasis is placed on the value of latent fingerprint evidence in drug cases. This form of evidence may be the most important should the defendant deny possession of the drug evidence involved. (GDM)

Voiceprint Identification and Application—L. G. Kersta, *Fingerprint and Identification*, 51(11): 3-8 (May 1970). The father of voiceprint identification discusses the technique and theory as well as presenting possible applications and selected cases where it has already been utilized. (GDM)

The Practical Range of Small Arms—G. L. M. Kjellgren, *The American Rifleman*, 118(3): 40-44 (March 1970). Diagrams and graphs illustrate the effects of aiming error, wind deflection, projectile energy, and range on four common cartridges. An optimum design for military cartridges is suggested. (MJK)

The Value of Spectacles in Identification—M. H. Wallace, *The Police Journal*, 42(9): 392-395 (September 1969). The importance of lost eyeglasses at a crime scene is discussed. Steps in identifying the glasses and the odds of another pair of glasses existing exactly as the evidence pair are given. A pair of glasses can almost be individualized. (MJK)

The Flexible Thermic Cutter—R. H. Boddy, *The Police Journal*, 42(11): 501-502 (November 1969). A multi-stranded cable covered with a plastic cover operates on the same principle as a burning bar, only flexible. The author claims the device can be used successfully to open small safes. (MJK)

Identi-Lock, First Electronic Identifying and Controlling Lock—*The Locksmith Ledger*, 31(4): 37-41 (April 1970). A new electronic lock and key system identifies up to four different keys used in the lock and can be easily programmed to accept or reject the key. Such a lock could be used to admit certain keys only during authorized times. (MJK)

Computerized Searching of Inverted Files—F. E. Lytle, *Analytical Chemistry*, 42(3): 355-357 (Marcy 1970). This article describes a computer-

ized method for inverted file searching of IR spectra. (PJC)

Isolation and Identification of Lysergic Acid Amide and Isolysergic Acid Amide as the Principal Ergoline Alkaloid in *Argyrea Nervosa*, a Tropical Wood Rose—Michael D. Miller, *Journal of the A.O.A.C.*, 53(1): 123-127 (January 1970). Lysergic acid amide and isolysergic acid amide have been extracted and isolated from the seed of Hawaiian baby wood rose. The ergoline alkaloids were identified by TLC, melting point determination, and UV and IR. (PJC)

GLC Determination of the Optical Isomers of Amphetamine—Clyde E. Wells, *Journal of the A.O.A.C.*, 53(1): 113-115 (January 1970). A method is described for the quantitative determination of the ratio of d- and l-amphetamine stereoisomers by GLC. (PJC)

A Rapid Non-Destructive Technique for Infrared Identification of Crude Oils by Internal Reflection Spectrometry—James S. Mattson, et al. *Analytical Chemistry*, 42(2): 234-238 (February 1970). A qualitative internal reflection spectroscopic technique requiring no sample pretreatment for the identification and differentiation of crude oils and tars is presented. (PJC)

Blood Alcohol Maxima and Absorption Times for Very Small Alcohol Dosages—O. Richter and R. Hilgerman, *Archiv fur Kriminologie*, (1, 2): 42-49 (January-February 1970). Experiments with 100 participants have shown that small dosages of alcohol (0.3 g/kg) are nearly completely absorbed in blood within 25 minutes. Peak concentrations in most cases (92%) were reached before 45 minutes. (ER)

A Serious Error Possibility in Spectrographic Firing Distance Determinations—Dr. Burkert and A. Schontag, *Archiv fur Kriminologie*, (1, 2): 17-34 (January-February 1970). The inverse firearm residue-distance relationship does not hold below 1 cm. At very close firing ranges the amount of deposit decreases with decreasing distance, and the penetration of the wound by the firearm residue increases. When close range firing is suspected, a sample should be taken from within the wound. In cases where multilayer fabric (clothing) had covered the skin, examination of all layers is sug-

gested. The text is illustrated by 17 photographs. (ER)

A Difference in CO-Haemoglobin Concentration between Entrance and Exit Wounds as Means for Determination of Firing Direction and Distance?—F. Bakonyi, E. Farago, and R. Tomcsanyi, *Archiv fur Kriminologie*, (1, 2): 37-41 (January-February 1970). The authors discuss several cases where the question is answered in affirmative. Close distance firing results in a markedly higher CO concentration of the blood of the entrance wound. (ER)

Determination of Firing Distances by X-Ray Fluorescence and Emission Spectrographic Techniques—H. Burger and H. Neuning, *Archiv fur Kriminologie*, (1, 2): 11-16 (January-February 1970). Utilization of optimum detection ranges of both techniques improves the precision of the determination of firing distances. Lead was found to be the most useful trace element of firearms residues, both for x-ray fluorescence ($\lambda = 1175.1\text{\AA}$) and emission spectroscopy ($\lambda = 2833.1$ and 2873.3\AA). Fluorescence analysis utilizes a sample (skin, fabric) of 20 mm. diameter, which is subsequently ashed for emission spectral analysis. Calibration with known weapon-ammunition-target combinations yields $\pm 15\%$ precision in distance determinations (30 cm. = 1 ft.) for the following calibers and distance ranges:

Caliber	Fluorescence	Emission
6.35 mm.	5-40 cm.	20-200 cm.
7.35 mm.	5-60 cm.	30-300 cm.
9 mm.	5-200 cm.	40-500 cm.

(ER)

Computer Evaluation of Fingerprints—P. Grob and E. Angst, *Kriminalistik*, 24(4): 173-175 (April 1970). Fingerprints from a burglary case were classified according to the EDV System and submitted to an IBM 360/40 for comparison with a library file. As a result of a search and comparison program, "Dakty Program", the computer submitted fifteen suspects with varying degrees of confidence levels. A visual examination of the computer suggested fingerprints led to the positive identification of the suspect. The computer based evaluation resulted in three-fold time saving as compared with visual ten fingerprint evaluation and a seven-fold time saving as compared with single fingerprint evaluation. (ER)

Lifting of Poroscopically Detectable Fingerprints—H. Jordan and H. Fritz, *Kriminalistik*, 24(2): 70-72 (February 1970). In instances where ridge patterns are unclear it is necessary to obtain the patterns of sweat pore outlets. The authors utilize a simple method which yields a well developed sweat pore pattern. The method consists of covering the source with a homogeneous layer of soot by burning a polyester stick. A slight heating of the fingerprint source improves fixation. After wiping the excess soot off, the print is transferred to adhesive transparent tape for microscopic examination. The article contains eleven references. (ER)

Identification of Earprints—F. Hirschi, *Kriminalistik*, 24(2): 75-79 (February 1970). Earprints are often left on doors in burglary cases (in Dusseldorf, Germany ten prints were obtained during a recent six month period). The techniques of lifting are similar to that of fingerprints. The author describes and illustrates a case where earprints have led to conviction. Persons interested in developing an identification system for earprinting are urged to contact the author. The address: Erkennungs Dienst der Kantons Polizei, Bern, Switzerland. (ER)

The Art of Forensic Pathology—Keith Simpson, *Journal of the Forensic Science Society*, 9(3 & 4): 199-204 (December 1969). The advantages of a forensic pathologist are discussed. The author also discusses the value of evidence and semantics. (SID)

The Rate of Deflation of Car Tyres—R. J. Grogan and C. S. Murray, *Journal of the Forensic Science Society*, 9(3 & 4): 157-164 (December 1969). Tests with tires containing penetrations of various sizes to establish the rate of deflation are described. A simple law is deduced which may be used to calculate the deflation rate of tires of different sizes. The article suggests a method by which a damaged tire can be adapted to give a figure for deflation rate. (SID)

The Use of Body Temperature in Estimating the Time of Death and Its Limitations—Thomas K. Marshall, *Medicine, Science and the Law*, 9(3): 178-182 (July 1969). A method is described by which the cooling curve of any human corpse can be drawn and an estimate made of when death

took place. Mention is made of the variable factors of which no account can be taken, which might affect the accuracy of the result. These make the timing of death by any temperature method no better than an investigational guide. (SID)

The Problems of the Defense Expert—Julius Grant, *Journal of the Forensic Science Society*, 9(3 & 4): 191–198 (December 1969). The author discusses the problem facing an expert for the defense. These include communication in the courtroom which also affects prosecution experts, competence, time, equipment and facilities, and training. (SID)

Physical Properties of Safety Glass—Jill S. Crockett and M. E. Taylor, *Journal of the Forensic Science Society*, 9(3 & 4): 119–122 (December 1969). A survey of 100 samples of safety glass was carried out in order to determine the evidential value of the safety glass of a particular vehicle being at a particular incident scene. The survey included refractive index, specific gravity and thickness. Results suggested that the thickness of particles is a valuable measurement and that refractive index and specific gravity together with thickness enabled the 100 samples to be divided into 86 groups. (SID)

The Identification of Paint Resins and Other Polymeric Materials from the Infrared Spectra of their Pyrolysis Products—K. W. Smalldon, *Journal of the Forensic Science Society*, 9(3 & 4): 135–140 (December 1969). Describes a rapid method for the identification of milligram quantities of resinous materials based on the IR examination of their pyrolysis products. The author emphasizes both advantages and limitations. Uses of the method are also demonstrated with case examples. (SID)

Heavy Mineral Studies as Evidence in a Murder Case in Outback Australia—D. Smale and N. A. Trueman, *Journal of the Forensic Science Society*, 9(3 & 4): 123–128 (December 1969). Soils collected from clothing found in the possession of a suspect and from the scene of a murder in the Northern Territory, Australia, showed heavy mineral assemblage. The soil was taken from blood stained sections of clothing and compared to soil from the scene and soil samples from other geographical areas. Similarities in the heavy mineral assemblages

from the clothing and scene were similar showing that they had a common origin while differences were noted between these samples and the soil from other areas. (SID)

Improved Technique for the Typing of Haptoglobins in Bloodstains—P. H. Whitehead and P. A. Morris, *Journal of the Forensic Science Society*, 9(3 & 4): 129–130 (December 1969). The authors present a modified method of typing bloodstains for haptoglobins based on consideration of the factors influencing the length of precipitin arcs obtained during immunoelectrophoresis. (SID)

The Use of Ammoniacal Bloodstain Extracts in ABO Groupings—S. S. Kind and Rosalyn M. Cleevely, *Journal of the Forensic Science Society*, 9(3 & 4): 131–134 (December 1969). This paper discusses the use of dilute ammonia solutions as extractants of denatured bloodstains for ABO grouping. The method overcomes the problem of heat denaturation of bloodstains in warm climates. The technique is a version of the absorption elution method having the advantages of suitability for batch working and ease in reading results. The unpopularity of the extractive method is due to difficulty in bloodstain extraction in all but the freshest of stains. (SID)

A Method for the Comparison of Tool Marks and other Surface Irregularities—P. O. Rees and K. R. Cundy, *Journal of the Forensic Science Society*, 9(3 & 4): 153–156 (December 1969). Describes a useful method of casting and comparing surface marks. (SID)

Dermatoglyphic Differences in Determination of Dizygosity Diagnosis—D. Hamilton, J. A. Boyle, W. R. Greig, M. K. Jasani, W. W. Buchanan, *Journal of the Forensic Science Society*, 9(3 & 4): 141–146 (December 1969). Investigates the usefulness of three different methods of analyses of total ridge count differences in the determination of zygosity of twins. (SID)

The Sub-Typing of Group A Bloodstains—John W. Hayward, *Journal of the Forensic Science Society*, 9(3 & 4): 147–149 (December 1969). Presents a modification of the Nickolls and Pereira technique of subgrouping A bloodstains. Dolichos lectin and trypsinized cells are used in the technique. Stress is placed on optimum

temperature. Satisfactory results were obtained with stains 12 months or older. No agglutination has been observed with A₂ or A₂B stains. (SID)

The Comparison of Ink Dyestuffs Using Minimal Quantities of Writing—K. W. Smalldon, *Journal of the Forensic Science Society*, 9(3 & 4): 151-152 (December 1969). A rapid thin-layer chromatographic technique is described for ink dyestuff comparisons which has been found useful, both in cases of document alteration, where only a few millimeters of pen stroke are available, and also where it is vital to cause minimal damage to a particular document. (SID)

Teeth Marks and their Significance in Cases of Homicide—John Furness, *Journal of the Forensic Science Society*, 9(3 & 4): 169-175 (December 1969). The author describes briefly the variations found between the bite of a victim, a sadist, self-inflicted marks and how bite marks may be compared with the teeth of the biter. The significance of teeth marks is also discussed. A procedure is given for action to be followed in cases where teeth marks are found and a method of comparison is outlined. (SID)

Thoughts on the Future Role of the Coroner—H. H. Pilling, *Medicine, Science and the Law*, 9(2): 110-115 (April 1969). Article focuses on the need for a "primus inter pares" of the medico-legal investigative team to be recruited from either profession and accept responsibilities to both disciplines. The role of the coroner over the years has been largely determined by the types of death referred to him. Prior to 1926 homicide was the main concern. Gradually after 1926 the responsibility for investigation and prosecution of homicide passed to the police. Research and prevention of death and unnecessary inquests are also discussed. (SID)

Use of Cattle Blood Groups in a Case Involving Larceny of a Calf—Dr. R. L. Spooner, *Journal of the Forensic Science Society*, 9(3 & 4): 111-114 (December 1969). Describes a case of suspected larceny of cattle which was referred for blood typing. The article gives introductory facts dealing with blood groups in cattle and then presents the test results from the larceny case. The feasibility of blood grouping of cattle in legal cases is also mentioned. (SID)

A Simple Density Gradient Technique for the Comparison of Glass Fragments—J. B. F. Lloyd, *Journal of the Forensic Science Society*, 9(3 & 4): 115-117 (December 1969). A method for the generation of a linear and stable density gradient column for the measurement of specific gravity of glass particles is described. (SID)

Stud Gun Injuries—Werner U. Spitz and Russell M. Wilhelm, *Journal of Forensic Medicine*, 17(1): 5-11 (January-March 1970). A series of descriptions and illustrations of accidental and experimental wounds caused by industrial stud guns is presented by the authors as an aid in the identification of such injuries. (FRA)

Footwear Impressions at Scenes of Crime—E. R. Mansfield—*Police Journal* 43(2): 93-96 (February 1970). As an aid to identification of footwear impressions, the author suggests establishment of an album of specimen footwear, filed according to pattern, and the posting of an "open file collection" of impressions collected from crime scenes. (FRA)

A New System for the Sub-Classification of Fingerprints—P. S. Nayer, *International Criminal Police Review*, 231: 226-228 (October 1969). The author outlines a system of sub-classification which could be useful where an extension of Henry's system of classification was needed. (FRA)

Modern Trends in Forensic Science—A. S. Curry, *The Police Journal*, 42(12): 538-546 (December 1969). The author outlines the introduction and operation of the Central Research Establishment in Britain as a national and centralized crime laboratory and information center using data processing, instrumentation and biological analysis. (FRA)

Comparison of Paints by Neutron Activation Analysis—K. B. Snow, C. M. Hoffman, R. L. Brunelle, and M. J. Pro, *International Criminal Police Review*, 231: 221-225 (October 1969). The application of neutron activation analysis for the comparison of black paints showing different trace elements is discussed. The article evaluates the potential of NAA for detecting batch to batch differences. (FRA)

Establishing the Sequence of Superimposed

Lines—Prof. Villanova, *International Criminal Police Review*, 231: 214–220 (October 1969). The article illustrates actual and experimental studies of intersecting lines and the author's interpretation of sequence. Recommendations for study of documents are made. (FRA)

Dental Identification, Possibilities and Difficulties—S. Keiser-Nielsen, *International Criminal Police Review*, 231: 206–210 (October 1969). Although usually based on antemortem data gathered from random sources, postmortem identification is gaining importance in investigation. Elimination by comparison of dental data is an efficient and time saving technique in situations of mass disaster. (FRA)

Ethical, Religious, and Legal Considerations to the Transplantation of Human Organs—Joshua A. Perper, *Journal of Forensic Sciences*, 15(1): 1–13 (January 1970). Ethical and religious considerations generally favor the transplantation of human organs, provided that specified conditions are met. The confusion concerning the legal requirements on transplantation proceedings will be removed to a large extent by U.S. legislatures as they adopt the Uniform Anatomical Gift Act. The main deficiencies of the Act are absence of provisions related to donations of human tissues from living donors, and failure to provide a legally binding definition of death. (WEK)

Collection of Pituitary Glands, Hennepin County—John I. Coe, *Journal of Forensic Sciences*, 15(1): 14–17 (January 1970). Problems encountered in connection with the collection of pituitary glands by a Medical Examiner's Office and the pathology department of a county hospital for the National Pituitary Agency are described. (WEK)

The Law of Probabilities and the Credibility of Witnesses and Evidence—Charles R. Kingston, *Journal of Forensic Sciences*, 15(1): 18–27 (January 1970). A discussion of probability and evidence. The author points out a need for continued development of objective data and methods of analysis. As long as probability plays a dominant role in reconstructing what happened during a crime and in determining who did it, every effort should be made to see that the handling of

probabilities best serves the interests of justice. (WEK)

The Value of the Necropsy in Ascertaining the True Cause of a Non-Criminal Death—Thomas K. Marshall, *Journal of Forensic Sciences*, 15(1): 28–33 (January 1970). This paper reports the errors in diagnosing the cause and category of death, whether homicide, accident, suicide or natural causes, likely to be introduced when a clinical assessment is relied upon instead of the cause and circumstances of the death being confirmed by necropsy. An analysis of 1,000 consecutive coroner's necropsies was carried out, and the diagnosis made from the history alone was found to be quite wrong in 11.3% cases when checked against the necropsy findings. This error was a minimum one, likely to have been greater if the diagnoses had been made by someone inexperienced in forensic pathology. The significance of the misdiagnoses is commented on. (WEK)

Narcotic Control and the Nalline Test: The Addict's Perspective—Stanley E. Grupp, *Journal of Forensic Sciences*, 15(1): 34–50 (January 1970). The Nalline Test is an antinarcotic testing device used to detect illicit users of opiates. Defenders of the test argue that it is an aid to the rehabilitation of addicts and a deterrent to drug use, but these claims remain largely unsubstantiated. Using the views and experiences of a sample of addicts in the Nalline program, an exploratory study was initiated to examine some of the common points made in behalf of the Nalline Test. Responses of addicts differed from those expected if there were any appreciable agreement with the champions of the test. Some differences in opinion and experience exist on the part of addicts from the areas sampled, which suggests that differences in the implementation of a given control mechanism do have a variable effect. Overall, the data do not provide substantial support for the Nalline Test as it is presently operated, either as a rehabilitative or deterrent agent. The exploratory nature of the study requires that the conclusions be considered speculative. (WEK)

Clandestine Drug Laboratories—John W. Gunn, Jr., Donald W. Johnson, and William P. Butler, *Journal of Forensic Sciences*, 15(1): 51–64 (Jan-

uary 1970). Clandestine drug laboratories, a recent innovation, may be small one or two man operations or sophisticated enterprises involving many persons and a substantial amount of money and effort. Drugs produced are of unknown quality—a danger to users. Ferreting out and raiding such laboratories is a hazardous challenge to law enforcement and must be carefully planned to protect police personnel and to make the raid at the right time to secure the greatest amount of effective evidence. The forensic chemist is an important member of the law enforcement team. (WEK)

Dissecting Aneurysms of Right and Left Coronary Arteries—Peter A. Benson, *Journal of Forensic Sciences*, 15(1): 65–70 (January 1970). The rarity of dissecting aneurysms of the coronary arteries is discussed and a unique case is presented which illustrates an extreme example of this condition and is the first case in which both right and left coronary arteries were simultaneously involved. Histochemical studies sometimes provide clues to the etiology of this rare condition which occurs in persons aged 17 to 62 years and also in postpartum females. This condition is a cause of sudden death. (WEK)

Suicidal Garroting and Manual Self-Strangulation—Joseph C. Rupp, *Journal of Forensic Sciences*, 15(1): 71–77 (January 1970). A case of suicidal garroting using bow ties was investigated and the findings reported. (WEK)

Identification of Species Origin of Tissues Found in a Sewer—Felix Milgrom and Walter A. Campbell, *Journal of Forensic Sciences*, 15(1): 78–85 (January 1970). Studies were performed to identify the species origin of a fragment of small intestine found in a sewer and submitted for investigation by the coroner's office. Saline extracts of this tissue along with extracts of intestines of known species origin were tested against rabbit antisera to human and animal tissues by means of complement fixation and double diffusion gel precipitation tests. Similar tests were performed using thermostable, ethanol-insoluble fractions of intestines and antisera prepared by immunization of rabbits with similar preparations of human and animal origin. In addition, sections of the tissues were tested by the mixed agglutination procedure against antisera

detecting human and animal species-specific antigens. The results of these tests allowed the identification of the tested specimen as porcine intestine. The respective merits of these various serological procedures in medico-legal studies of this type are discussed. (WEK)

Analysis of LSD-STP Mixtures—Albert R. Sperling, *Journal of Forensic Sciences*, 15(1): 86–91 (January 1970). Procedure for the separation, quantitation and identification of mixtures of LSD and STP (DOM), utilizing column chromatography for the separation of the two bases and ultraviolet spectrophotometry for quantitation. The identity of the substances was confirmed by thin-layer chromatography for LSD and infrared spectrophotometry for STP. Recoveries of known amounts of LSD and STP by this procedure are given. (WEK)

Gas Chromatographic Determination of Hypnotics in Biological Materials Combined with Purification Procedure Using Gel Filtration—Yoshihiko Maeba, *Journal of Forensic Sciences*, 15(1): 92–109 (January 1970). New method for determination of both barbiturate and non-barbiturate hypnotics by gas chromatography. Gel filtration using Sephadex LH-20 was applied to remove impurities from organ extracts containing hypnotics. High recoveries of hypnotics were obtained. By the combination method of the purification by gel filtration and the quantitative determination by gas chromatography the distribution of four hypnotics in blood, urine, and in other organs of fatally intoxicated rabbits was examined. (WEK)

Scanning Electron Microscopy Applications in Criminalistics—Lowell W. Bradford and John Devaney, *Journal of Forensic Sciences*, 15(1): 110–119 (January 1970). A preliminary study of the use of the scanning electron microscope in examination of specimens encountered in general criminalistics has been presented with demonstrations of resolution, focus and depth of field at both low and high magnifications. Advantages and constraints of the method are mentioned. (WEK)

A Modified Azo-Dye Method for Identification of Seminal Stains—S. Sivaram, *Journal of Forensic Sciences*, 15(1): 120–123 (January 1970). Method