

1953

Police Science Technical Abstracts and Notes

Follow this and additional works at: <https://scholarlycommons.law.northwestern.edu/jclc>

 Part of the [Criminal Law Commons](#), [Criminology Commons](#), and the [Criminology and Criminal Justice Commons](#)

Recommended Citation

Police Science Technical Abstracts and Notes, 44 J. Crim. L. Criminology & Police Sci. 128 (1953-1954)

This Criminology is brought to you for free and open access by Northwestern University School of Law Scholarly Commons. It has been accepted for inclusion in Journal of Criminal Law and Criminology by an authorized editor of Northwestern University School of Law Scholarly Commons.

POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

Joseph D. Nicol*

Suggestions on How to Obtain Confessions—Rene Lechat, *International Criminal Police Review*, 7th year: (No. 61) 246-50 (Oct., 1952). A review of criminal interrogation. Lechat summarizes as follows: (1) Preliminary contact, (2) Creating a suitable atmosphere, (3) Obtaining admissions and confessions, and (4) Checking admissions. A thorough knowledge of the case is necessary before the interrogator should proceed. A superior attitude is to be avoided; the interrogator should be dignified and free from brutality. No attempt should be made to boast or place the subject on the defensive. Admissions are not to be pleaded for nor should refusal be met with threats. Observe the demeanor of the subject; make no promises which cannot be kept. The crime should be treated as a normal event of everyday life; the vanity of the subject might even be flattered by stressing the ability necessary to commit such a crime. Use of terms which might be upsetting should be avoided.

The Rapid Estimation of the Alcohol Content of Organic Liquids—O. A. Guagnini, *International Criminal Police Review*, 7th year: (No. 61) 268-70 (Oct., 1952). A method which is sensitive and accurate and applicable to putrified material is described. It consists of four test-tubes joined in a train. The first tube contains a 1cc. sample to be tested plus 4cc. of a saturated solution of picric acid. Tube two contains 5cc. of a 10% solution of sodium carbonate. The third tube contains 5cc. of 10% solution of picric acid, and number four contains exactly 5cc. of standardized 0.33% potassium dichromate in 50% sulfuric acid. The train is pumped at a rate of one bubble per second, and the entire operation is conducted in a boiling water bath. The color of the fourth tube is then compared against a standard series.

Blood-Breath Ratio—Anon., *Test Talks*, 5:3 (Feb., 1953). The report of the special technical subcommittee of the National Safety Council's Committee on Tests for Intoxication indicates that the alveolar air-blood ratio is 1:2100. It is further, the opinion of the subcommittee that the Alcometer, Intoximeter, and the Drunkometer give comparable and reliable results for estimating the concentration of alcohol in the blood.

X-ray Diffraction Used in the Identification of Drugs—R. H. Pinker, *Annals of Western Medicine and Surgery*, 6:595-9 (Sept., 1952). Some of the problems of purification of pharmaceutical preparations for x-ray diffraction studies of the active principles (alkaloid, barbiturate, or synthetic morphine-like substances) are discussed. Charts of some of the principal drugs are included.

Scientific Evidence in Establishing the Time of Death—A. R. Moritz, *Annals of Western Medicine and Surgery*, 6:362-4 (May, 1952). The misconception as to the accuracy with which the time of death can be established is pointed out by Moritz. Certain tests which can be applied to show when death has occurred are suggested. The rate method (cooling of body, lividity, rigor

* Technician, Dade County CBI Laboratory, Miami, Fla.

mortis, chemical changes, putrefaction, and insects) and the association method (condition of lights, plant life, household activities indicated, accumulation of deliveries of milk, paper, mail, etc.), the latter being the more reliable, are treated by Moritz in this article.

The Polygraph in Crime Investigation—O. K. Burger, *Annals of Western Medicine and Surgery*, 6:300-1 (May, 1952). A review.

Necessity for a Model Medicolegal Investigative System—S. R. Gerber, *Annals of Western Medicine and Surgery*, 6:597-601 (Sept., 1952). Gerber urges a thorough study of problems and elevations of modes of operation within existing coroner's offices.

Guarding the Telltale Scene—Anon., *Spring 3100*, 24:4-6, 39 (March, 1953). A review, with illustrative cases. The importance of preserving the scene until technicians arrive is stressed.

Mark It!—Anon., *Spring 3100*, 24:4-5 (April, 1953). The first of a series of articles on the marking of commonly met objects. Narcotics and beverages are dealt with in this issue.

Fingerprint Evidence—Allen L. LaLande, *Identification*, 3:3 (February, 1953). The proper presentation of fingerprint evidence in order to show it in the best light requires adequate pretrial preparation. The exact location and condition of objects bearing incriminating prints must be brought out in court testimony. Fingerprint experts (this might apply in other fields) are cautioned against assuming that laymen will grasp the significance of an identification without suitable foundation and explanations.

Plastic Surgery and Criminology—George Bankoff, *Annals of Western Medicine and Surgery*, 6:448-50 (July, 1952). Where disfigurement is pronounced in a criminal offender Bankoff urges plastic surgery. Several successful cases are cited.

The Detection and Determination of Small Amounts of Inflammable Hydrocarbons in Combustible Materials—J. M. Macoun, *The Analyst*, 77:381 (July, 1952). A weighed sample of suspected material is placed in a wide-mouth flask and saturated with 95% (v/v) alcohol, with slight excess. Let stand overnight and add 3X as much water as alcohol, mix and distill through vertical condenser, collecting two 20ml. portions in 50ml. burettes. Add 15ml. of potassium dichromate (1/6 sat. sol.) and 2ml. HCl, Sp. Gr. 1.18, to each burette. Stopper, mix, and let stand overnight. The hydrocarbons will separate above olive-green aqueous layer. Volume of hydrocarbons can be measured and separated for further tests.

The Identification of a Particular Make of Firearm from a Fired Bullet—L. W. Bradford and J. W. Brackett, *Identification News*, 3:3-5, 8 (March, 1953). The system used by the author to file the rifling data on firearms is described. A table giving some of their measurements is included.

Hat Identifier—Anon. *Vox-Cop*, 9:6 (Sept.-Oct., 1952). (Clipping from New Haven Sunday Register). Frank Reeves observed the difficulty witnesses have in identifying persons when not wearing the same headgear in

identification pictures as worn at the time of the crime. A series of hat pictures on plexiglass, paired as front view and profile, was prepared and the identification pictures are then shown with hats superimposed. The size of the hat is proportioned to the head size commonly in use in the police department using the Hat Identifier.

Arson Investigation and the Crime Detection Laboratory—R. C. Steinmetz, Presented at the 1952 Annual Conference, International Association for Identification, Havana, Cuba. A survey of the aids which the Crime Detection Laboratory offers to the solution of the crime of arson. Steinmetz stresses the need for a closer relationship in the following fields:

- A. Detection by trained and alert firemen
- B. Investigation by competent authorities
- C. Identification by qualified experts
- D. Prosecution by selected individuals.

Marihuana—*The Bulletin of the New York State Bureau of Criminal Investigation*, 16: No. 3 (1951). This is an excellent article on the history, effects, and identification of marihuana. In it, however, the only chemical tests mentioned are the Alkaline Beam test and a modification of the same test. It has been found that the Beam test often fails to work, particularly on small quantities of California and Mexican grown marihuana. For some years we have been using a modification of the Duquenois test originally published in the *J. Egypt. Medical Association* 21, 224 (1938) and modified by Machete and Levine of the United States Bureau of Narcotic Enforcement. This test has been found much more satisfactory than any of the other tests for marihuana.

To make the test, a small portion of the suspected material is placed in an evaporating dish to which is added petroleum ether to dissolve the resin. The petroleum ether is evaporated, and the plant parts removed. To the resin left in the dish is added approximately equal volumes of modified Duquenois reagent and concentrated hydrochloric acid. If marihuana is present a bluish-purple color appears.

The modified Duquenois reagent consists of 1 g. vanillin dissolved in 50 ml. ethyl alcohol and .05 ml. acetaldehyde. (Submitted by David Q. Burd, California State Bureau of Criminal Identification and Investigation.)