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## Police Science Technical Abstracts and Notes

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## POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

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**Determination of Additive Elements in Lubricating Oils by Emission Spectrographic Methods**—E. L. Gunn, *Analytical Chemistry*, 26 (12): 1895 (December, 1954). The author describes a spectrographic method applicable to both new and used lubricating oils with particular emphasis on additives such as barium, calcium, and phosphorus. A carbon matrix method with a high voltage spark is used for the calcium and barium with an accuracy of 5 percent to 8 percent, and a porous cup method for phosphorus with an accuracy of 6 percent. (JFW)

**X-Ray Diffraction Identification of Alcohols by Ether Xanthate Derivatives**—G. G. Warren and F. W. Matthews, *Analytical Chemistry*, 26 (12): 1985 (December, 1954). Potassium xanthate derivatives of some of the common alcohols have been prepared, and tables of their x-ray diffraction powder data are given as a means of identification. (JFW)

**Spectrographic Analysis of Petroleum Products and Related Materials**—L. L. Gent, C. P. Miller, and R. C. Pomatti, *Analytical Chem-*

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*istry*, 27 (1): 15 (January, 1955). The authors describe a new method for the preparation of samples in the spectrographic determination of relatively large quantities of metals and phosphorus in various materials. A small amount of sample is burned on a relatively large bed of graphite powder containing copper oxide as an additional buffer and internal standard. After mixing, portions of this powder are tamped into a shallow cratered graphite electrode and arced for 60 seconds in a direct current arc. Analytical curves are constructed using the same technique on samples of known composition. Used and unused lubricating oils, additive concentrates, greases, sludges, and deposits can be analyzed using this technique. (JFW)

**Colorimetric Determination of Trace Quantities of Boric Acid in Biological Materials**—W. C. Smith, Jr., A. J. Goudie, and J. N. Sivertson, *Analytical Chemistry*, 27 (2): 295 (February, 1955). The authors describe a method for the determination of trace quantities of boric acid in small amounts of biological materials such as blood, urine, and animal tissue. Organic matter is destroyed by fusion of the sample with lithium carbonate. The fusion mixture is dissolved in hydrochloric acid; the sulfuric acid is added, followed by a solution of carminic acid. The color develops within five minutes. Inorganic materials that are normally found in blood, urine, and animal tissue do not appear to interfere appreciably. Accuracy of  $\pm 1.0 \gamma$  is claimed for quantities of from 2 to 15  $\gamma$  of boron using the Beckman DU Spectrophotometer. (JFW)

**Scientific Evaluation of the Lie Detector**—Eugene E. Levitt, *Iowa Law Review* (Spring 1955). An interesting and objective evaluation of the lie detector technique is based upon a study of the author who at that time was Research Assistant Professor, Child Welfare Research Station of the State University of Iowa. The article is one which all persons interested in the field of lie detection can read with considerable interest and profit. Copies of this number of the *Iowa Law Review* may be obtained from the College of Law, University of Iowa, Iowa City, Iowa, at a cost of \$1.00. (FEI)

**The X-Ray Investigation of Postage Stamps**—H. C. Pollack, C. F. Bridgman, and H. R. Spletstosser, *Medical Radiography and Photography*, 31 (No. 2): 74-8 (1955). Three different radiographic technics were used to study postage stamps. These methods might be used for the solution of some document problems, such as the removal of a bank stamp imprinted over a signature. Low voltage (6 kv) radiography, x-ray autoradiography (200 kvcp, Cu filter), and x-ray electronography (200 kvcp, lead foil) were employed. (JDN)

**Bullet Recovery**—J. A. Churchman, *International Criminal Police Review*, Number 87: 109-19 (April, 1955). A discussion of the recovery of test projectiles from oiled sawdust, waste, and water. Water is not recommended for rifle projectiles having velocities of 2000 fps. or higher. Instead, oiled sawdust may be employed. Diagrams of the water recovery box accompany article. (JDN)

**Police Science Instructors**—The Department of Police Administration, Indiana University, is expanding its law enforcement training

courses and is interested in obtaining the services of additional instructors who have a good academic background and considerable practical experience, preferably in the municipal police field. The program of law enforcement training has been continuous since 1936 and at present includes two four-year courses leading to A.B. degrees in police administration and traffic safety, a combined six-year course leading to an A.B. degree in police administration and a LL.B., as well as a combined accounting and police administration program. An increase in in-service training in all branches of law enforcement is contemplated. Interested parties should contact Don L. Kooken, Chairman, Department of Police Administration. (DLK)

**Chinese Immigration and Blood Tests**—Sidney B. Schatkin, Leon N. Sussman, and Dorris Edward Yarborough, *Criminal Law Review*, Spring Issue, 1955. The authors discuss the problem of segregating fraudulent claims for Chinese entries into the United States under derivative citizenship, Chinese born sons of American born Chinese, and the introduction of blood grouping tests to detect the frauds. The first few months of tests resulted in 40% exclusions. (OH)

**Annual Business Meeting, The International Association of Arson Investigators, Inc.**—In accordance with the By-Laws of the Association the Annual Business Meeting of the members will be held on Tuesday, April 24, 1956, at 7:30 p.m. at the Purdue Memorial Union, Purdue University, West Lafayette, Indiana. The Annual Report of the Board of Directors will be presented, officers and directors elected, and other business transacted. Willis S. Peterson, Secretary-Treasurer, Richard C. Steinmetz, President.

## FOREIGN LANGAUGE PERIODICALS AND ARTICLES OF INTEREST IN THE FIELD OF POLICE SCIENCE\*

Compiled by Kurt Schwerin†

KRIMINALISTIK. Hamburg. Vol. 9, nos. 3-6, March-June, 1955.

C. Leszczynski, *Farbspuren und lacksplitter* (Traces of paint and fragments of varnish), pt. 1 (no. 3, p. 96-103).—M. Eberhart, *Die spurensicherung als wichtiger teil der aufklärungsarbeit* (The securing of traces as an important part of the investigation) (no. 4, p. 135-39).—Kurt Frieden, *Die rekonstruktion entfernter zeichen und nummern in metallen* (The reconstruction of removed signs and numbers in metals) (no. 4, p. 139-43; no. 5, p. 177-82; no. 6, p. 225-28).—Otto Martin, *Zum nachweis winzigster blutspritzer ausgebürsteter und ausgewaschener blutspuren* (The proof of most diminutive blood spatters of brushed out and washed out traces of blood) (no. 4, p. 144-47).—Rudolf Mally, *Der schreibmaschinen-erkennungsdienst* (Typewriter identification service) (no. 5, p. 182-87).

\* All periodicals listed are available in the Elbert H. Gary Library, Northwestern University, School of Law, 357 E. Chicago Ave., Chicago.

† Assistant Librarian, Elbert H. Gary Library, Northwestern University, School of Law.

DIE NEUE POLIZEI. Munich, Vol. 9, no. 3, March, 1955.

S. Oehlinger, *Philatelistische fälschungsbekämpfung* (The fight against philatelic falsifications) (p. 40-43).

NORDISK KRIMINALTEKNISK TIDSKRIFT. Stockholm. 25th year, 1955, no. 3.

Tore Sjögren, *Skriftjämförelse och sannolikhet: Ett förslag till värdering i siffror vid skriftgranskning* (Comparison of handwritings and credibility: A suggestion to evaluate the examination of handwritings in figures) (p. 29-38)

REVUE INTERNATIONALE DE CRIMINOLOGIE ET DE POLICE TECHNIQUE. Geneva. Vol. 9, no. 1, January-March, 1955.

F. Clerc, *L'examen du sang pour la détermination de l'alcoolémie devant les tribunaux suisses* (The blood examination for the determination of alcoholemia before Swiss courts) (p. 20-28).—C. Eckenstein, *Regard sur le système pénitentiaire japonais* (Notes on the Japanese penitentiary system) (p. 28-40).—Urban Thiel, *La gendarmerie nationale belge* (The national Belgian gendarmery) (p. 40-47).—Max Frei, *Relevé des traces microscopiques au moyen de bandes collantes* (Securing microscopic traces by adhesive tape) (p. 47-54).