273 Determination of Methanol in Body Fluids. F. Stratton. Tech. Bull. Registry Med. Technologists 25, 179-183 (1955); Am. J. Clin. Pathol. 25, 1071-1075 (1955).

A preliminary isolation by steam distillation is followed by permanganate oxidation. A color reaction is then carried out with reduced fuchsin for a qualitative test, or chromotropic acid for a quantitative determination. Ethanol does not interfere with the methanol determination. -- Chem. Absts.

274 Determination of Trichloroethylene in Air by the Rayleigh Interferometer. R. E. Jahn. Analyst 80, 700-704 (1955).

The Rayleigh interferometer was used to determine the refractive index of samples of air containing 0 to 3% trichloroethylene vapor. The readings are not linearly related to the difference of refractivity between the two gases which are compared, but a simple calculation gives a value which is related. The interferometer is a very convenient instrument when a large number of determinations are to be made, but the high accuracy of the instrument is not fully utilized. -- Chem. Absts.

275 A Method for Removing Insecticide Residues of Wettable Powders from Sprayed Surfaces. F. Barlow. Bull. World Health Organization 12, 359-364 (1955).

Sample surfaces of glass, unpainted plywood, and mud bricks were sprayed with a 75% DDT wettable powder. Adhesive tape carefully applied, removed, and analyzed for labile chlorine gave recoveries considered suitable for field studies for evaluation of residual DDT on sprayed surfaces. -- Chem. Absts.

276 Some Principles of Airborne Dust Sampling. J. G. Dawes, B. A. Maguire, and D. L. Tye. Research Report No. 102, Safety in Mines Research Establishment, Portobello St., Sheffield, England. 16 pp. (1954). $1.00.

In this report the authors bring together the information they have collected concerning the behavior of dust clouds in coal mines, in order that dust sampling may be economically performed and that the scope and limitations of the data it furnishes may be appreciated. At distances greater than ten roadway diameters from the source of dust the airborne concentration is substantially uniform over the cross-section of the roadway, and particles within the respirable range (0.5-5 microns) do not deposit appreciably over distances up to 100 yards from the source. Short-term fluctuations are less important at a greater distance from the source. Fluctuations in dust concentration are large, and either large numbers of short-period samples or a continuous sample are required to give a reliable mean. The relation between the shift mean and the mean of peaks, the differences of dust concentrations between shifts, and the correlation between thermal precipitator and P.R.U. hand pump results are discussed. -- Bull. Hyg.

277 Sampling and Analysis of Industrial Process Dust. K. Westlin and L. J. Czerwonka. Am. Ind. Hyg. Assn. Quart. 16, 283-292 (Dec. 1955).

A technique is described for collecting a dust sample suitable for both concentration determination and analysis. The most suitable filter medium was found to be a type AA fiber-glass, of given size, density and pad thickness, heated to about 600°F to remove bonding material. The apparatus is described and illustrated. A null-balance type of sampling tube maintained sufficiently constant air velocity, which is essential. Sieving followed by elutriation was used in the size separations. Procedure for washing filter pads, sieve procedure, dust dispersion, and pipette procedure are described. Other methods for special purposes including dusts not suitable for wet recovery, and particles of very small size, are described and evaluated. A typical dust sampling and analysis problem is described. For most practical purposes the results obtained are apparently accurate. In some portions of the procedures, particularly in the size analysis, the methods become an art and not merely a mechanical procedure, and the skill and patience of the analyst play a large part in the final accuracy of the results.

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