

- 1178 An Improved Method for the Determination of the Total Lead Content of Gasoline. R. Moss and K. Campbell. *J. Inst. Petrol.* 53, 89-93 (February, 1967).

A rapid method for the determination of lead in gasoline is described. The determination is based upon a cold extraction of the tetraalkyl lead compound from the gasoline by means of aqueous iodine monochloride solution, followed by volumetric determination of the lead. Specialized equipment is unnecessary and the precision and accuracy obtained are considerably better than those quoted for existing standard methods. -- Authors' summary, APCA Absts

- 1179 The Determination of Trace Amounts of Lead in Crude Oil and Petroleum Products. K. Campbell and R. Moss. *J. Inst. Petrol.* 53, 194-198 (May, 1967).

A method is given for determining trace lead concentrations in petroleum products. The lead, in whatever form it is present, is extracted from the organic material with aqueous iodine monochloride solution and determined colorimetrically as the dithizonate. Lead concentrations ranging from ppm to ppb can be determined by this method, which can be applied to a wide variety of petroleum products. No special apparatus is required. Traces of tetraalkyl lead present in crude oil can be determined rapidly after preliminary distillation of the crude.

-- Authors' summary, APCA Absts.

- 1180 Screening Lead Workers for the Presence of Stippled Erythrocytes. R. L. Clark, J. H. Jones and J. F. Jones. *J. Clin. Pathol.* 20 (2), 166-169 (1967).

The possibility of false low results from the technique of counting the number of red cells showing basophilic stippling to detect lead intoxication is investigated. The number of the stippled erythrocytes in the blood of lead workers showed a marked fall when the blood is taken into an anticoagulant. The affected erythrocytes probably became altered in some way as the result of contact with anticoagulants so that their stippling was lost or was no longer demonstrable. While urinary coproporphyrin estimations have been suggested as a more sensitive index of excessive lead absorption, enumeration of the stippled cells is still widely used for screening lead workers. Although the nature of the reaction of lead in the erythrocytes is by no means clear, it is generally accepted that stippled cells are reticulocytes in which the basophilic material has been modified in some way. It has been shown that more stippled cells are found in the marrow than in the peripheral blood, which suggests that lead has its main effect on the red cell precursors than on the circulating erythrocytes.

-- APCA Absts.

Editor's Note: Also see Industrial Hygiene Digest Abstract 371, April, 1966 on "Concentration of Lead in Bone in Plumbism".

- 1181 Lead Poisoning From Drinking Soft Water. A. P. C. Bacon, et al. *Lancet* 1, 264-266 (February 4, 1967).

Three cases of lead poisoning are described: in one, the diagnosis had been missed for 12 years. In each instance the cause was long-term ingestion of soft water that had eroded lead from the inside of lead pipes bringing water to their houses. There are 9 references.

-- Authors' abst., Public Health Eng. Absts.

- 1182 Toxic Liver Damage From Ethionamide. E. Kuntz, H. Liehr, and W. Pfingst. *Deut. med. Wochschr.* 92, 1718-1722 (September 22, 1967).

Two personal cases suggested that ethionamide is an indirectly hepatotoxic substance. It may cause both hepatocellular damage (toxic hepatitis or toxic hepatitis) and hepatocanalicular jaundice with intrahepatic cholestasis. Pre-existing liver damage apparently increases the hepatotoxic effect of ethionamide, but in a given case the good tuberculostatic effect of this drug should not be dispensed with. Careful control with suitable liver function tests is urgently recommended.

-- J. Am. Med. Assn. References & Reviews

- 1183 Two Cases of Acro-Osteolysis Occurring in Men Engaged in the Polymerization of Vinyl Chloride D.K. Harris and W.G.F. Adams. *Brit. Med. J.* 3, 712-714 (September 16, 1967).

Acro-osteolysis occurred in two men engaged in the polymerization of vinyl chloride. The bones affected are the terminal phalanges of the fingers and the sacro-iliac joints, but in one case the patella and in the other the phalanges of the feet are involved. The condition is accompanied by Raynaud's phenomenon and skin lesions, sections of which are shown. The condition may be related to scleroderma.

-- J. Am. Med. Assn. References & Reviews