

December 15, 1931

Mr. Wm. P. Yant,
U. S. Bureau of Mines,
Experiment Station,
4800 Forbes St.,
Pittsburg, Pa.

Dear Mr. Yant:

Allow me to thank you very much for the list of your publications which you sent me some time ago.

In the matter of lead analyses, we have published a very complete description of the methods of lead analysis which are now in use in the laboratory. You will find these in reports which I have sent you. The most complete description is found in an article which appeared in the Journal of the American Medical Association, Volume 92, 1929.

Some further notes on the digestion processes were published in a paper entitled "The Behavior of Lead in the Animal Organism, II. Tetraethyl Lead", American Journal of Hygiene, Volume 13 #2, March 1931.

Only one modification of the analysis of urine has been made since the publication of the 1929 article in the J. A. M. A. We feared slight losses of lead as a consequence of the addition of ammonium hydroxide. There was reason for believing that under certain conditions not all of the lead would be thus precipitated. We have therefore carried out that step by different technique, as follows:

To each liter of urine we add 100 c.c. of nitric acid (sp. gr. 1.42), and 10 c.c. sulphuric acid (1:10). The addition must be done with great care if the sample has been standing long enough to develop ammonia. The sulphuric acid is added to prevent too great alkalinity of ash. The sample is evaporated to dryness on a hot plate, at 105° C. It is then transferred to a 500 c.c. Pyrex dish and evaporated to dryness at 105° C. From this point on the analysis is as previously described.

I hope you will find this satisfactory for your purposes. With kindest regards.

Sincerely,

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