confirmation media. It should be understood that since the success of this method depends upon the formation of certain minimum amounts of gas those samples having very few organisms, or predominatingly slow lactose fermenters, must necessarily take a longer period of time for completion of the test. Speed is enhanced by using larger samples for only slightly contaminated waters.

The governing factors are: (1) concentration of organisms in inoculum; (2) size of fermentation vial which regulates the amount of liquid which will overflow into conductor tube; (3) height of limiting level mark; (4) diameter and shape of conductor tube; (5) length of time inoculum is enriched before passing into conductor tube, 4 hours found to be optimum time. All these factors are controllable.

With this method, mobile laboratories are enabled to collect a flock of samples on one day and are ready to move again the next morning when the tests are completed. Positive tests on ships' supplies may be accomplished overnight as compared with 48 to 96 hours. In a large distribution system, water leaving the reservoirs may be tested with ensuing results obtained sufficiently early to regulate the supply before it reaches the end of the distribution system.

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PERMANENT MOUNTS OF VIRUS-INFECTED CHORIOALLANTOIC MEMBRANES

THE chorioallantoic membrane of chick embryos has become an important tissue for the cultivation of viruses. The lesions produced are in many cases characteristic of the infecting virus. There is a need for an easy method of permanently mounting such membranes. A method is here described which has proven itself to be satisfactory.

The mounting material is prepared by slowly pouring, with constant stirring, 50 gm of powdered isobutyl methacrylate polymer[1] into 100 cc of xylol. The mixture is placed in the incubator and stirred at intervals until it becomes clear. This takes about an hour. A higher concentration of the plastic is less good, as air bubbles do not rise well to the surface.

The membranes are harvested in the usual manner and rinsed in physiological saline or Tyrode's solution. They are then passed through a series of dilutions of ethyl alcohol, 5, 10, 15, 20, 25, 30, 40, 50, 65, 85, 95 per cent. and, finally, absolute alcohol. They are spread out and left in each dilution for 15 minutes or longer, except for the absolute alcohol in which they are left for at least half an hour. Just before mounting they are transferred from the latter to xylol, where they are left for five minutes. About 5 cc of the solution of plastic is poured into the bottom of a Petri dish. The membranes are drained slightly and spread out in this. A paper label may be embedded beside them. This may be typewritten or marked with pencil, ink or india ink. The Petri dish is set aside to dry in a dust-free place. A second layer of plastic is added to cover all irregularities. When this has hardened, the cover of the Petri dish is put on to protect the surface from dust and injury.

When the membranes are passed through fewer dilutions of alcohol or more rapidly, the normal parts do not remain as clear and the lesions do not show as well. Other solvents were tried, but none gave better results than xylol.

No difficulty is experienced from curling of the membranes. In membranes with considerable edema there is a shrinkage of 10 to 15 per cent., but in normal ones or in those with little edema there is no shrinkage.

This method produces a solid mount which can be easily handled and examined. The areas of hyperplasia due to virus infection stand out in sharp contrast to the surrounding tissue.[2]

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[1] Manufactured by E. I. du Pont de Nemours and Company, Wilmington, Del.

[2] I wish to express my appreciation for the valuable suggestions of Dr. Maurice N. Richter. This work was conducted under a grant for virus research from the Lambert Pharmacal Company, St. Louis, Mo.

CORRECTION

IN Table 2 of the article "Prevention of Tumor Growth (Carcinoma 2163) by Intravenous Injections of Yeast and Vitamins" (SCIENCE, July 18, 1941) the per cent. figures for non-takes should read: Yeast + Riboflavin 62%, Yeast 21%, Riboflavin 14%, Yeast + Thiamin 18%, Thiamin 3%.

BOOKS RECEIVED

American Philosophical Society. *Proceedings, 1941; Commemoration of the Life and Work of Alexander Dallas Bache, and Symposium on Geomagnetism.* Pp. 125–351. Illustrated. The Society, Philadelphia.

CLAWSON, H. PHELPS. *By their Works.* Pp. xxi + 236. Illustrated. Buffalo Society of Natural Sciences. $4.00.

General Electric Company. *Abstract Bulletin of the Lamp Development Laboratory, March, 1941.* Pp. xii + 165–559. Illustrated. The Laboratory, Nela Park, Cleveland.

HARKER, ALFRED. *The West Highlands and the Hebrides; A Geologist's Guide for Amateurs.* Pp. xxiii + 127. Illustrated. Cambridge University Press, Macmillan. $2.00.

LAWRENCE, A. S. C. *The Scientific Photographer.* Pp. x + 180. 81 figures. Cambridge University Press, Macmillan. $3.75.

National Research Council. *Report of Committee on Drug Addiction, 1929–1941, and Collected Reprints.* Pp. xxx + 1581. The Council, Washington, D. C.