

The measurements were performed through the kind assistance of the Hungarian Council for Natural Science.

Institute for Experimental Physics,  
University of Budapest,  
Budapest.  
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M. FORRÓ.

<sup>1</sup> Barnóthy, J., and Forro, M., *Z. Phys.*, **104**, 534 (1937).

<sup>2</sup> Priebisch, J., *Wiener Ber.*, **145**, 101 (1936).

#### Potential Constants of Tetrachlorethylene

IN my recent letter to NATURE on this subject<sup>1</sup>, the values of  $f$  and  $\gamma$  which I have deduced from Delfosse's theory are erroneous. They should be re-

placed by the following:  $f = 4.48 \times 10^5$  dynes/cm.;  $\gamma = 0.65 \times 10^5$  dynes/cm.

It should be noted that  $f$  is greater than  $\gamma$ , which is in accord with ordinary chemical conceptions.

Finally, the values of  $\nu_4$  and  $\nu_8$  and of  $\nu_4^*$  and  $\nu_8^*$  should be interchanged.

These values will then read as follows:

$$\nu_4 = 236 \text{ cm.}^{-1}; \quad \nu_8 = 1569 \text{ cm.}^{-1}.$$

$$\nu_4^* = 230 \text{ cm.}^{-1}; \quad \nu_8^* = 1569 \text{ cm.}^{-1}.$$

The conclusions reached in the letter are, however, unchanged.

JULES DUCHESNE.

Department of Physical Chemistry,  
University, Liège.

<sup>1</sup> NATURE, **139**, 288 (1937).

#### Points from Foregoing Letters

Commenting on the effects, observed by Harkins and Myers, of minute traces of metallic ions upon monomolecular films, Dr. J. S. Mitchell, Prof. E. K. Rideal and Dr. J. H. Schulman point out that minor traces of metallic ions 'sensitize' chemical processes in monolayers and affect the electrical potential at phase boundaries. This fact may be related to the biological action of the metals. Dr. C. Robinson describes the lowering of the interfacial tension between oil and water, in presence of salts of long-chain acids, due to calcium ions present as impurities in distilled water.

H. Christensen, M. Krogh and M. Nielsen suggest that symptoms of mercury poisoning may result from the presence of mercury spilled on the floor in poorly ventilated rooms.

The formation of ammonia in a series of stages, in shed blood, is described by Prof. E. J. Conway and R. Cooke. The authors also find that the blood (both plasma and red corpuscles) contains a powerful enzyme capable of splitting off ammonia from adenosine.

A phenol derived from the essential oil of anethole (*p*-hydroxy propenyl benzene) is found by Prof. E. C. Dodds and W. Lawson to possess an oestrogenic activity approaching that of the sex hormone oestrone. The authors give a table showing the activity of several other compounds, proving that the phenanthrene nucleus is not an essential part in the molecule of an oestrogenic substance.

B. C. J. G. Knight reports that one of the 'growth factors' present in the high-vacuum distillate of yeast, which enables *Staphylococcus aureus* to be grown on a special 'basal medium', can be replaced by nicotinic acid or its amide.

The formation of visible mesomorphic fibres in clarified, expressed juice of mosaic-diseased tobacco plants is reported by R. J. Best. The fact that infectivity is associated with the fibres, together with the fact that the fibres collapse at the temperature of the thermal inactivation point of the virus, and other properties, lead to the conclusion that the fibres are the virus, or at least that the virus forms an essential constituent of the fibres. It is considered that the fibres consist of long chains of virus particles linked together by relatively feeble bonds.

A technique for the concentration of capillary active substances from composite liquids by the

use of foam is described by Dr. Franz Schütz. A difference in the degree of adsorption of certain ions on foam is shown to take place and with it a change of pH and surface tension in the liquid formed by the settling of the foam and in the original solution. Other phenomena, including a new physical temperature effect in connexion with foam, are discussed.

A device for increasing the sensitivity of the 'spoon gauge' for measuring pressure differences, the essential feature of which is a special form of bifilar suspension, is described by A. Lewis and Dr. D. W. G. Style. This enables a pressure difference  $4 \times 10^{-5}$  mm. of Hg. to be read on the scale.

By the application of spectrographic, ultra-microscopic and streaming birefringence methods to the study of dispersions of 1:1'-diethyl- $\psi$ -cyanine chloride, in sodium chloride solutions, Dr. E. E. Jelley has found that the dye passes from the dissociated state through a molecular phase of very brief duration to form very thin threads. From a study of the optical properties of these threads, and of very thin needle crystals of the dye, he has deduced that the threads are crystalline in the direction of their length only, and correspond to the nematic type of liquid crystal.

The apparently haphazard distribution of certain plant species over a small area may really reflect very exactly the variations in the conditions of the habitat. This was observed by J. F. Hope Simpson to be the case with *Mercurialis perennis* (dog's mercury) in a wood the soil of which showed marked variations in hydrogen ion concentration.

An experiment showing that the stimulus produced by an alternating current in a saline-filled ear can be combined with that produced by a vibrating tuning fork to give 'beats', is described by E. Bárány. This, the author states, shows that the electric stimulus and the bone-conducted stimulus travel along a common pathway before they enter any all-or-none-mechanism.

Unlike the intensity of cosmic rays themselves, the number and intensity of showers produced by the cosmic rays at different times of the day is not related to the intensity of the horizontal component of the earth's magnetic field. This, Dr. M. Forró states, may indicate that the primary shower producing radiation is not composed of electrically charged particles.