

*Citation:*

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The formula of COHEN, as well as ROSA's method give too small values for the self-inductance.

An example of the extreme accuracy, obtained with the very simple formula (16) in computing the self-inductance of a cylindrical current sheet, as compared with the value calculated by the exact formula of LORENZ<sup>1)</sup> with elliptic integrals, may be given here:

Example 2.

$$l = 50 \text{ cm.} \quad a = 5 \text{ cm.} \quad n = 10$$

calculated

$$\begin{array}{ll} \text{by formula (16)} & L_s = 4.540489 \text{ millihenry.} \\ \text{,, LORENZ's formula} & L_s = 4.540486 \quad \text{,,} \end{array}$$

**Physiology.** — *“On the permeability of red bloodcorpuscles in physiological conditions, more especially to Alkali and Earth-alkalimetals”*. By Prof. H. J. HAMBURGER and Dr. F. BUBANOVIĆ.

Mr. G. GRYS has published a short article in this paper<sup>2)</sup>, in which on the ground of some calculations he thinks it desirable to object to some of the conclusions we drew from our experiments on the subject mentioned above. (Proceedings of June 25<sup>th</sup>, 1910).

We feel convinced that his remarks would not have been published, if he had waited for our more explicit communications on this subject, in the “Archives Internationales de Physiologie”. As appears from a note on the first page of our paper we had promised these, and they indeed appeared shortly after<sup>3)</sup>.

In this treatise a detailed account is given of the experimental method and moreover by way of example a lengthy report is added in an appendix, containing full particulars of one of the series of experiments. In these proceedings it is hardly possible to enter into details, especially when, as in this case, extensive investigations are concerned. A detailed description is better in its place in a physiological periodical.

This remark might suffice, but it is perhaps of some use that those who cannot immediately consult the “Archives Internationales” are made acquainted with the mistake of Dr. GRYS.

<sup>1)</sup> Bull. of the Bur. of St. V, 41.

<sup>2)</sup> These Proceedings of October 29, 1910.

<sup>3)</sup> La perméabilité physiologique des globules rouges, spécialement vis-à-vis des cations. Archives Internationales de Physiologie. Vol. X. p. 1. Appeared September 24<sup>th</sup> 1910.

An example taken at random may serve to illustrate this mistake.

We wish to determine the effect of an addition of some water, for instance, on the interchange of the component parts of blood-corpuscles and serum

For this purpose we took a certain volume of blood. Let us for the reader's convenience assume that this volume amounted to 100 c.c. Let us suppose these to contain 40 c.c. of red blood-corpuscles, and 60 c.c. of serum. From these 60 c.c. of serum we take 20 c.c., and dilute them with  $7\frac{1}{2}$  c.c. of water, but now we do *not* add these  $27\frac{1}{2}$  c.c. of fluid to the rest of the blood, but only 20 c.c., so that the volume of the blood becomes 100 c.c. again. Now it is obvious that it cannot be expected, as Mr. GRYNs does, that the blood treated, will contain the same absolute amount of substances as the original blood, since serum has been kept back. *This GRYNs overlooked*, and a similar mistake he made in the calculation of the experiments, in which the serum was made hyperisotonic by the addition of NaCl.

If Mr. GRYNs, avoiding the mistake made by him, repeats the calculation, he will no longer arrive at the conclusion that "the mistakes in our analyses are much greater than the differences upon which our conclusions are based", nor will these calculations afford him grounds for opposing our views as to the permeability of blood-corpuscles.

**Physiology.** — "*A tumour in the pulvinar thalami optici. A contribution to the knowledge of the vision of forms.*" By Prof. C. WINKLER.

(Communicated in the meeting of 28 January 1911).

The case, which supplied the material for this paper was the following:

F. t. B., aged 22, who entered the hospital on February 25<sup>th</sup> 1909, was born from healthy parents and did not suffer from any illness before, neither traumata, nor venereal infection. He partook of alcohol and tobacco in a moderate way.

Since Dec. 1908 there was a stiffness of the right leg, followed afterwards by unsteadiness in the movements of the right hand. The commissure of the lips on the right side began to drop. By and by the patient became aware of a peculiar sensation in the right half of the body, a certain numbness, and he commenced to stammer. All these symptoms gradually grew worse without any aching of head or limbs, without dizziness, without disturbances of vision or hearing, as far as the patient knows. Only his memory was impaired.

During March and April notes have been taken about the case. The patient, a very intelligent individual, takes an interest in his surroundings and has right notions as to space and time; the pulse is feeble, 92 per minute, and regular.