"to them" [1]). Whereas in November 1659 the inhabitants, warned by trembling of the ground, could fly in due time to Nila and Damar, they were in February 1660 unexpectedly overtaken by the eruption, so that nearly all of them lost their lives.

During the seventeenth century two more eruptions follow. About the first, that of 18th January 1660 the then governor of Banda JOHAN VAN DAM reported only briefly that Teeuw was "blown up" [2]).

The second in 1693 was likewise reported only incidentally by NICOLAAS WITSEN who, in addition to a report of an eruption in the island of Serua, says: "others have begun to open themselves and to cast out Fire, as in the Isle Chiaus" [3]).

It is true that LEOPOLD VON BUCH was of opinion that this report must refer to the island of Siau [Sijau] [4]) belonging to the Sangi islands. But it is evident that Tjau or Tijau (Téon) can be transcribed in English as Chau, but Siau cannot. Besides in the mentioned report there was only question of islands in the Banda Sea.

During the 18th and the 19th century nothing whatever is heard about volcanic activity of the island. Only on the 3rd of June 1904 a new eruption took place on which occasion, as the short report says, the gardens of the village of Mèsah, situated on the westside were destroyed [5]).

The name of the volcano of Téon is said to be Vunuweri (read Funuweri) [6]).

Physiology. — *"The permeability of red blood-corpuscles in physiological conditions, especially to alkali- and earth-alkali metals."* By Dr. G. GRYNS.

(Communicated in the Meeting of September 24, 1910).

In the meeting of the Kon. Akademie van Wetenschappen of 25 June 1910 (proceedings p. 258) H. J. HAMBURGER, also in the name of F. BUBANOVIĆ, communicated about the above subject and came to the conclusion, that the red blood-corpuscles in physiological

[1]) P. A. LEUPE. Uitbarsting van den brandenden berg op het eiland Teeuw Bijdr. t. de T. L. en Vk. (3) VI. 1871, p. 231.

[2]) W. E. VAN DAM VAN ISSELT. Mr. JOHAN VAN DAM, Gouverneur van Banda 1661 en van Amboina 1665. De Indische Gids. XXX. 1. Amsterdam, 1908, p 137.

[3]) Account of the sad Misschief befallen the Inhabitants of the Isle of Sorea. Philosoph. Transact. XIX. London, 1695, p. 51.

[4]) Physicalische Beschreibung der Canarischen Inseln. Berlin, 1825, p. 376, also Gesammelte Schriften III. Berlin, 1877, p. 580.

[5]) Nieuwe Rotterdamsche Courant, Dinsdag 17 Januari 1905, Tweede Blad p. 3.

[6]) J. G F. RIEDEL. De sluik- en kroesharige rassen tusschen Selebes en Papoea. 's-Gravenhage, 1886, p. 466. — Zeemansgids voor den Oost-Indischen Archipel V. 's-Gravenhage, 1908, p. 14.

conditions are permeable to kations and anions, or if one does not wish to place oneself on the standpoint of the doctrine of ions, to metals and acidradicals.

This conclusion, as HAMBURGER remarks himself on page 269, being opposed to the current view, should be founded on very sound bases. Now HAMBURGER communicates, as usually in the "Proceedings", for every ion but one experiment, so that only for those experiments in which both in the serum and in the blood-corpuscles, the quantity of the investigated ion was ascertained, the accuracy of the analysis can be controlled.

If we do this for Table I and for Table IV, we come to peculiar results.

Table I Permeability to Kalium and Natrium.

In the first experiment (*b*) 0,2% NaCl is added to the serum, and the latter is afterwards united again with the blood-corpuscles. The percentage of KCl in the mixture must consequently have remained constant.

In the second experiment *c* 10% of water (according to the text; in the table stands 0,2% which is evidently an error) is added to the serum. The serum amounted to 60% of the blood, the quantity of water added was consequently 6% of the blood; therefore in 900,00 of the diluted blood there must be found 1,5358 : 1,06 or 1,496 Gr. KCl.

H. found however:

	in the serum	in the bloodcorp.	total
normal	0,3479	1,2379	1,5858
with 0,2% NaCl	0,4438	1,0761	1,5199
with 10% H_2O	0,4006	1,2132	1,6138

Still more peculiar are the results with natrium chloride.

H. found here:

	in the serum	in the bloodcorp.	total
normal	4,6323	0,4198	5,0524
with 0,2% NaCl	4,4885	0,6905	5,1790
with 10% H_2O	4,5164	0,5623	5,0787

The quantity of serum was 594,00; 0,2% of it is 1.188 Gr. Of these 1,188 Gr. NaCl added only

$$5.1790 - 5.0524 = 0.127 \text{ Gr.}$$

was found back again.

In the second experiment (*c*), as we saw, 6% of water was added to the blood. The total amount of common salt in 900 cc. of the

mixture should consequently be 5,0524 : 1,06 or 4,766 Gr., i. e. 0,292 Gr. less than was found.

Table IV. Permeability to Chlorine.

Quantity of 1/10 n. $AgNO_3$ solution as measure for the percentage of chloride in:

	the serum	the bloodcorp.	total
normal	110,06	33,34	143,40
with 0,2% NaCl.	110,34	34,16	144,50
with 10% H_2O	112,20	31,18	143,38

In experiment *b* 0,2% of NaCl was added to the serum. The quantity of serum was 189 cc., consequently 0,378 Gr. NaCl was added. Out of this 63 cc. 1/10 normal salt solution could have been made, equivalent to as much 1/10 normal $AgNO_3$ solution. For the blood-corpuscles and the serum together consequently also 63 cc. solution more would have been required, H finds however only 1,1 cc. more.

In experiment *c* 10 % of water was added to the serum or 18,9 cc. For 300 cc. of the diluted blood 143,40 cc. $AgNO_3$ solution were required. For 300 cc. of the diluted blood consequently 300 : 318,9 times 143,40 or 134,9 cc. are required i.e. 8,5 less than H found.

Consequently we see that in three of the four experiments that can be controlled the errors in the analysis are much greater than the differences on which the conclusions are based.

We do not doubt but both investigators have made more than one experiment with regard to each ion, but we may likewise admit that an investigator who in his publication communicates only one single experiment out of a series, will certainly choose such a one as he classes with those that have offered the best result. Consequently there is no reason to suppose a priori, that the experiments that are not mentioned, had more exact results.

Therefore, in my opinion, one will act wisely by not modifying one's views about the permeability of the red blood-corpuscles on the authority of the investigations discussed above.

E R R A T A.

In the Proceedings of the Meeting of April 29, 1910:

Vol. XII. p. 813 l. 2 and 9 from the top: for 61°.9 read 64°.9.
„ „ „ 832 l. 14 from the top: for 5 read 0.5.
l. 10 from the bottom: for 1.3 read amply 1.3.
„ XIII. „ 382 plate: to interchange the subscripts Fig. 4 and Fig. 5.

(November 24, 1910).