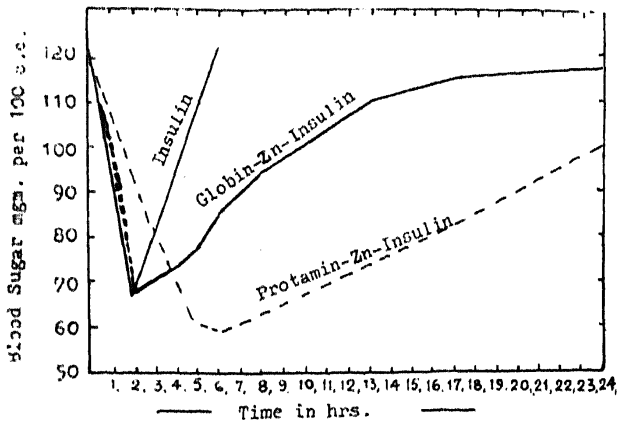
Globin-Insulin can be considered satisfactory for use.

Reiner *et al.*[1] have suggested a comparison of the Globin-Insulin with regular Insulin, the



latter being injected in two portions five hours apart, keeping the total dosage in both cases the same. This method does not appear to have been followed and worked out in detail yet.

We had to test a large number of Globin-Insulin preparations recently and, therefore, had the opportunity of giving this method extensive trials. A comparative study of the hypoglycæmic effect at different intervals with one dose of Globin-Insulin, given at one time and the same dose of regular Insulin in two portions five hours apart has been made in Table I.

TABLE I

	Number of Rabbits	Average Blood Sugar (mgm. per cent.) 0	2 hrs.	4 hrs.	7 hrs.	Average. B.S. red
Globin-Insulin 0·5 units/kgm.	20	104·0	68·2	68·0	72·0	33·2%
Regular Insulin given in 2 doses at 5 hrs. interval ·2×0·25 Units/kgm.	20	105·0	64·0	85·2	60·0	30·4%

The average hypoglycæmic effect of Globin-Insulin in seven hours is approximately equal to that of regular Insulin during the same period provided the latter is given in two doses of five hours apart. If, however, the average hourly hypoglycæmic effect of Insulin over a period of five hours is compared with that of an identical dose of Insulin given at the same time, the effect of Globin-Insulin (35 per cent.) has been found to be significantly more than that of Insulin (31 per cent.).

While the hypoglycæmic effect of Globin-Insulin starts early (almost at about the same time as Insulin), and the effect is sustained even at the end of five hours, the effect of regular Insulin would have almost disappeared by this time. This accounts for the higher average with the former.

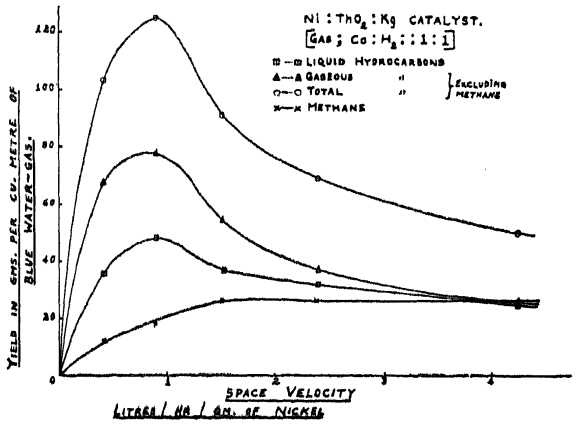
Central Drugs Laboratory, H. BISWAS.
Government of India, B. MUKERJI.
110, Chittaranjan Avenue, N. K. IYENGAR.
Calcutta,
September 23, 1947.

1. Reiner, L., Searle, D. S., and Lang, E. H., *Proc. Soc. Exper. Biol. and Med.*, 1939, **40**, 171.

NI-ThO$_2$-KIESELGUHR (100 : 18 : 100) CATALYST FOR THE FISCHER-TROPSCH REACTION. PART II

IN continuation of our previous work[1] we have carried out experiments with the nickel catalyst but with blue water gas ($CO : H_2 :: 1 : 1$) instead of the synthesis gas ($CO : H_2 :: 1 : 2$) previously used.

It was felt that it would be more economical if water gas produced by the reaction of steam and coal, after purification, could directly be fed to the converters instead of enriching the gas with an additional volume of hydrogen. In these experiments it has been found that (*a*) water gas also gives yields of hydrocarbons comparable to those given by the synthesis gas, (*b*) gaseous hydro-carbons preponderate over the liquid hydrocarbons and (*c*) the yield of methane which is much less than what was obtained with 1 : 2 gas, remains almost constant with increasing space velocity which is indeed a desirable feature. It has also been noticed that the maximum yield (about 125 gms. per cu. metre of gas) is obatined with a space velocity of 0·9 litres per gm. of nickel and these findings are in accordance with results obtained by workers in Germany and elsewhere. The yields are plotted against the space velocity in the graph.



The experiments are carried out at atmospheric pressure at 195° C. and the catalyst is found to be very steady.

Dept. of Pure & Applied Chemistry,
General Chemistry Section, J. C. GHOSH.
Indian Institute of Science, N. G. BASAK.
Bangalore, G. N. BADAMI.
November 1, 1947.

1. Ghosh, Basak and Badami, *Curr. Sci.*, 1947, **16**, 318.