



Comparative Glyceride Structures of Indian and Western Animal Fats

would hold; the low palmitic content of the buffalo milk fat (19.0) of Bhattacharya and Hilditch⁶ and of the sacred baboon fat of Hilditch, Sime and Maddison¹¹ is no doubt due in the former case to unknown dietary factors, possibly cottonseed meal (cf. Achaya and Banerjee⁵), and in the latter to the high unsaturation of the fat and low content of total saturated acids. The reverse reason might also explain the high figure of 45.6 obtained by Achaya and Banerjee⁹ in a buffalo depot fat of I.V. 23.8.

We wish to thank Prof. V. Subrahmanyan for his encouragement in the course of these investigations, which will be published elsewhere in full.

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ON THE PREPARATION AND COMPOSITION OF NEGATIVELY CHARGED FERRIC PHOSPHATE SOL AND GEL

THE sols and gels of various ferric salts have been described in previous communications to this *Journal*.¹ This paper records my results on the composition of negatively charged ferric phosphate sol and the preparation of the hydro-gel.

When potassium di-hydrogen phosphate is added to ferric chloride solution a yellowish white precipitate is obtained. It is observed that this precipitate of ferric phosphate can be dispersed by caustic soda or ammonia to give a bright red sol of ferric phosphate which bears a negative charge. The peptisation is greatly facilitated by the addition of glucose and glycerine. In a paper Mushran and Prakash² have studied the detailed conditions of the preparation of this sol.

The sol under investigation was prepared by mixing 40 c.c. of ferric chloride (corresponding to 30.36 gms. of Fe_2O_3 per litre), 40 c.c. of 10 per cent. potassium dihydrogen phosphate solution, 20 c.c. of glycerine and 80 c.c. N-NaOH solution. The total volume was raised to 200 c.c. The sol was dialysed for fifteen days.

The analysis of the coagulum of the sol obtained by the cataphoretic method indicated that the empirical formula of the suspension was $5 Fe_2O_3 \cdot 2 FePO_4 \cdot 11 H_2O$.

The coagulum obtained from this sol by the use of electrolytes is gelatinous, but it could not set to a gel. I have obtained the gel, however, by the desiccation method. About 20 c.c. of the sol was allowed to evaporate slowly over concentrated sulphuric acid in a desiccator. After a week the sol was found to set to a transparent stiff jelly.

Further work on this sol and gel is in progress.

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STUDY OF THE COMPOSITION OF CHLOROMERCURIC ACIDS BY THE ELECTRICAL CONDUCTIVITY METHOD

THE electrical conductivity method of Dey and Bhattacharya¹ has been applied to the study of the chloromercuric acids and their potassium salts and the results are recorded in this note. The method consists in the measurement of the electrical conductivity of the individual solutions of chlorides and also of the mixtures of the mercuric chloride solution with varying concentrations of the hydrogen or potassium chloride solution. It was found that the mixture was more conducting than either constituent and the conductivity values were even greater than the sum of the conductivities of the constituents. In a graph the percentage