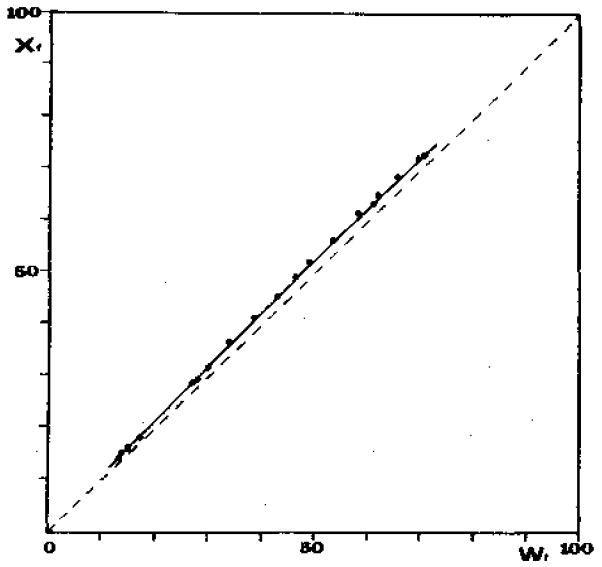

FIG. 2. Percentage of the fast decaying component in terms of hydrogen content, X_f, as obtained by NMR, vs the oil and stearic acid percentage by weight, W_f. The dotted line represents the $X_f = W_f$ function.

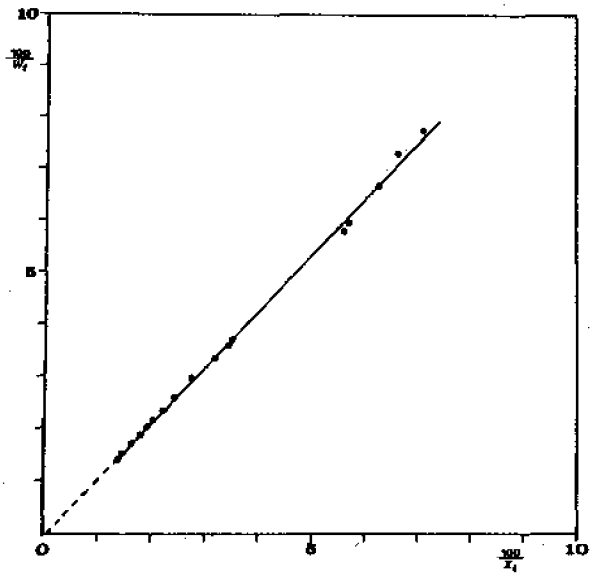

FIG. 3. $100/W_f$ vs $100/X_f$ plot.

content, X_f, is measured by the analysis of the longitudinal magnetization decay curve. On the contrary, if the h_f/h_s ratio is unknown, a correlation curve, as shown in Figure 3, must be derived and the h_f/h_s ratio must be evaluated.

In the present case, the h_f/h_s ratio of 1.085 was found by regression analysis. Assuming this h_f/h_s ratio, the fat content by weight, W_f, was calculated with Equation III and the standard deviation between these values and those given by the sample composition reported in Table I was calculated, obtaining an SD of ± 0.5.

From these results, it can be concluded that pulsed low-resolution NMR is a suitable technique for oil and water determination in emulsions. Finally, it can be noted that the time required for the analysis is about 20-30 min if 6 points, each of them obtained by the average of 10 measurements, are taken to detect the longitudinal magnetization decay.

REFERENCES

1. Shanbhag, S., M.P. Steinberg and A.I. Nelson, JAOCS 48:11 (1971).
2. Mansfield, P.B., and C.A. Horn, J. Food Technol. 7:53 (1972).
3. Hansen, J.R., J. Phys. Chem. 78:256 (1974).
4. Ben-Et, G., and D. Tatarsky, JAOCS 49:499 (1972).
5. Van Putte, K., and J. Van den Enden, Ibid. 51:316 (1974).
6. Van Putte, K., L. Vermaas, J. Van den Enden and C. den Hollander, Ibid. 52:179 (1975).
7. Madison, B.L., and R.C. Hill, Ibid. 55:328 (1978).
8. Trumbetas, J., J.A. Fioriti and R.J. Sims, Ibid. 53:722 (1976).
9. Trumbetas, J., J.A. Fioriti and R.J. Sims, Ibid. 54:433 (1977).
10. Trumbetas, J., J.A. Fioriti and R.J. Sims, Ibid. 55:248 (1978).
11. Tiwari, P.N., and W. Burk, Ibid. 57:119 (1980).
12. Balestrieri, F., E. Brosio, F. Conti, A. Di Nola and O. Scorano, J. Food Technol. (in press).

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ERRATUM

In "Effect of Degumming Conditions on Removal and Quality of Soybean Lecithin," by G.R. List, J.M. Avellaneda and T.L. Mounts (*JAOCS* 58:892, 1981), the captions to Figures 3 and 4 should be transposed to read: FIG. 3. Recovery of acetone insolubles from crude soybean oil. ● Theory, acetone-insoluble content crude oil. ⊡ Calculated from phosphorus content of degummed oil. ▵ Experimental acetone-insoluble content of hexane solubles. FIG. 4. Effects of degumming parameters on phosphorus removal and acetone-insoluble content of gums.