

Taking butter fat (Mol. wt. = 230) and horse fat (Mol. wt. = 280) as typical examples, errors of 6.9 and 5.8% respectively are calculated.

The program may be corrected according to eqns. 3 and 2 by changing statement numbers 76 and 77 (ref. 1, p. 128, lines 6 and 10):

C GLCW = WEIGHT OF FAT DERIVED FROM 100 GM OF FATTY ACIDS

(75) GLMT = GLCM + GLMN

(76) GLCW = GLMT * 38.049

C

C COGL = PERCENT GLYCEROL RESIDUES IN FAT

(77) COGL = GLMT * 89.071 * 100 / (100 + GLCW)

As part of graduate training in fat analysis², students of the faculty have to check "theoretical iodine values", calculated from gas chromatograms, against the values obtained by direct titrimetry of the fat³. We have found that for dry fats there is generally close agreement between the experimental and calculated iodine values. However, significantly lower "theoretical iodine values" than titrimetric values are calculated if higher unsaturated fatty acids are missing from the chromatogram.

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1 J. W. Aston, *J. Chromatogr.*, 131 (1977) 121.

2 R. Verbeke, *Scheikundige analyse der eetwaren van dierlijke oorsprong*, Graduate course, Veterinary Faculty, Univ. Ghent, 1973.

3 H. Pardun, *Handbuch der Lebensmittelchemie, Bd. IV, Lipids*, Springer, Berlin, 1969, p. 573.

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Reply

Sir,

The alteration to the equation for the calculation of the theoretical iodine value in the above paper by Drs. De Brabander and Verbeke is correct. The failure to account for the loss of water of esterification was an oversight on my part. I will enclose correction notes with all future reprint requests.

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