kernels were ground in a Waring blender for two 1-min periods at full speed, mixed with a spatula, and then reground for an additional ½ min. Then, about 9 g of the material were transferred directly to a 500-ml grinding container of the Sorvall Omni-Mixer and ground for ½ min, mixed with a spatula, and ground for an additional ½ min. The oil contents of ground peanut samples were determined as in Method Ab3-49 except the extractions were conducted for 4 *continuous hours.*

Peanut kernels (50 g) were initially ground in a Waring blender, then 9-g portions were transferred to the Omni-Mixer to obtain smaller particle size (100% passing through a 20 mesh and 91% passing through a 60 mesh screen). Grinding in the blender alone gave comparable results, however, the extraction had to be stopped after 2 hr and sample ground with a mortar and pestle as in the AOCS method. The Henry Nut Slicer was tried for slicing of peanuts but was not satisfactory with low moisture roasted peanuts because oil was expressed within a few seconds due to heat generation. The Wiley mill and the Raymond Hammer mill were also unsatisfactory for grinding because of the high oil content of peanuts.

The oil content of four samples of raw peanuts by the improved method was 49.7% ± 0.06 and by the AOCS Official Method Ab3-49 was 49.6% ± 0.11. The values obtained on the individual samples by both methods are in relatively close agreement ranging from 0.02 to 0.27%. The coefficient of variation for the AOCS method is slightly higher than with the improved method (0.22% vs. 0.12%), and the average deviation is -0.13% for the AOCS method.

Table I shows that the improved method is very reproducible for analysis of oil from different peanut products (standard deviation, ± 0.05).

These analyses on several types of peanut products using the improved new method demonstrate that a minimum of oil is lost (less than by the AOCS method) and that the extraction is complete in a simple operation, thereby eliminating the possibility of error caused by interruptions in the refluxing process. This improved method is quantitative and uniform and can be employed to determine oil content of raw or roasted, fresh or rancid peanuts, peanut butter, and other peanut products.

JAMES C. KUCK
A.J. ST. ANGELO
Southern Regional Research Center
Science and Education Administration
U.S. Department of Agriculture
New Orleans, LA 70179

REFERENCES

1. "Official and Tentative Methods of the American Oil Chemists' Society," 3rd Edition, Revised to 1976, AOCS, Champaign, IL, Method Ab3-49.

[Received September 25, 1979]

# Errata

In "Quantitative Analysis of Food Fatty Acids by Capillary Gas Chromatography", JAOCS 56:933, the captions for Figures 4, 5, 6 and 7 are incorrect. They should read:

**FIG. 4. Correction factors for saturated fatty acids vs chain length.**

**FIG. 5. Correction factors for fatty acids vs corrected retention ratios.**

**FIG. 6. Separation of FAME derived from beef lipid, temperature programmed with no internal standard. Column, see Table I; temperature program: 150 C - 170 C at 0.5 C/min, then 0.2 C/min for 16 min, then 1 C/min to 200 C, hold at 200 C until all FAME eluted. Numbers on peaks refer to identities given in Table II.**

**FIG. 7. Temperature programmed separation of FAME derived from lipid extracted from Zweiback Toast (Nabisco). Column, see Table I; temperature program: 150 C - 170 C at 0.5 C/min, then 0.2 C/min for 16 min, then 1 C/min to 200 C, hold at 200 C until all FAME eluted. Numbers on peaks refer to identities given in Table II.**