of two distinct macromolecular motions: an anisotropic motion (undoubtedly reorientation about the chain axis) and an effectively isotropic motion. Motion in the crystalline region is anisotropic to the melting point, whereas motion in the amorphous region at low temperatures is dominated by reorientation about a local "chain axis" and at higher temperatures by motions orthogonal to the chain axis which eventually lead to nearly isotropic motion near the melting point.

The chemical shift spectra of polycrystalline samples presented here conclusively demonstrate the grossly different types of motion that occur in the crystalline and amorphous fractions. Previous conventional NMR studies[8,9] of PTFE required highly oriented fiber samples to establish reorientation about the chain axis as the dominant motion in the crystalline region.

A line shape analysis of the processes responsible for the observed motional narrowing will be presented in the near future; this analysis requires the use of the proper theory.[10,11]

**Acknowledgment.** We gratefully acknowledge Dr. C. A. Sperati, Dr. J. P. Jesson, and Professor R. W. Vaughan for many valuable discussions and R. O. Balback for skilled technical assistance.

## References and Notes

(1) (a) D. Ellett, U. Haeberlen, and J. S. Waugh, *J. Polym. Sci., Polym. Lett. Ed.*, **7**, 71 (1969); (b) A. N. Garroway, D. C. Stalker, and P. Mansfield, *Polymer*, **16**, 171 (1975); (c) M. Mehring, R. G. Griffin, and J. S. Waugh, *J. Chem. Phys.*, **55**, 746 (1971).
(2) (a) J. Schaefer, E. O. Stejskal, and R. Buchdahl, *Macromolecules*, **8**, 291 (1975); (b) *ibid.*, **10**, 384 (1977).
(3) D. W. McCall, D. C. Douglass, and D. R. Falcone, *J. Phys. Chem.*, **71**, 988 (1967), and references cited therein.
(4) A. D. English and O. T. Garza, *Macromolecules*, preceding paper in this issue.
(5) W.-K. Rhim, D. D. Elleman, and R. W. Vaughan, *J. Chem. Phys.*, **59**, 3740 (1973).
(6) These samples were prepared by Dr. C. A. Sperati of Plastic Products and Resins Department, E. I. du Pont de Nemours and Co., Parkersburg, W.Va.
(7) C. A. Sperati and H. W. Starkweather, *Fortschr. Hochpolym.-Forsch., Suppl.*, 465 (1961).
(8) D. Hyndman and G. F. Origlio, *J. Appl. Phys.*, **31**, 1849 (1960).
(9) V. J. McBrierty, D. W. McCall, D. C. Douglass, and D. R. Falcone, *Macromolecules*, **4**, 584 (1971).
(10) A. J. Vega and R. W. Vaughan, *J. Chem. Phys.*, **68**, 1958 (1978).
(11) A. J. Vega and A. D. English, submitted for publication.

**A. D. English* and A. J. Vega**

*Contribution No. 2628*
*E. I. du Pont de Nemours and Company*
*Central Research and Development Department*
*Experimental Station, Wilmington, Delaware 19898*

*Received November 30, 1978*

# CORRECTIONS

**Sung Gun Chu and Petr Munk**: Thermodynamic Properties of Polystyrene in Mixed Solvents Studied by Sedimentation Equilibrium. Volume 11, Number 5, September–October 1978, page 879.

Due to typographical errors, eq 2 and 44 are stated incorrectly. The correct equations read

$$c_i = n_i M_i / \bar{V}_m \tag{2}$$

$$\frac{\omega^2 r c_3}{RT\,(dc_3/dr)} = \frac{1}{M_3(1 - \bar{v}_3{}^*\rho)} + \frac{2A_2 c_3}{1 - \bar{v}_3{}^*\rho} + \ldots \tag{44}$$

The correct equations have been used in subsequent analysis.

**Douglas S. Saunders and Mitchell A. Winnik**: Cyclization of Hydrocarbon Chains Attached to a Planar Chromophore. Volume 11, Number 1, January–February 1978, page 25.

In Tables IV and V, the titles should read ". . . Conformation of the C(1)–C(2) Bond)". On pages 31 and 32 all references to the rotational state of the C(2)–C(3) bond should be changed to refer to the C(1)–C(2) bond, and the last sentence of the body of the paper should read ". . . chains which hit at low carbon number require the bond between carbons 1 and 2 to be in the gauche conformation".