ring substitution, our method of analysis (chlorine content) was not sufficiently sensitive to determine how complete these displacement reactions were. Nonetheless, based upon the proportions of spin label and chloromethylated polymer used, these resins contain <0.02% ring substitution. At these low concentrations the observed correlation times showed no significant concentration dependence.
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Erratum. Shape of Random Flight Chains

The statistical behavior of the inertial tensor for random flight chain molecules of different structures, with applications to theories of the excluded-volume effect and the osmotic second virial coefficient, has been investigated in a series of papers[1–6] by both Monte-Carlo and analytical methods. It has recently come to our attention that the representation of flexible-chain molecular shape in terms of the ellipsoid of inertia was previously used in several papers by Koyama.[7,8] Here we comment briefly on the similarities and differences between the two groups of papers.

In his first paper on the excluded volume effect,[7] Koyama calculated the exact average ellipsoidal volume of a random flight chain, and using it together with a distribution of molecular radius which is the same as that used by Flory and Fisk,[9] he constructed a distribution function of molecular radius of gyration for expanded polymer. As compared to the experimental data, the Koyama theory appears to underestimate the excluded volume effect. Our efforts on this problem[4] were somewhat similar. We also obtained an underestimation when the distribution of molecular volumes was treated by assuming a Flory–Fisk type of distribution for each principal component of the radius. In consequence, we preferred to use directly an ensemble of Monte-Carlo lattice chains to represent the distribution, and the results then showed a better agreement with experiment.

In his second paper,[8] dealing with intrinsic viscosity (a problem we have not treated by use of the inertial tensor), Koyama formulated the average principal components of the radius for an infinitely long linear random flight chain. His procedure is attractive in its simplicity, though it is restricted to the second moments of the principal-component distribution and preaverages the coefficients of the cubic equation for the three components. His values for the average second moments are in quite good agreement with ours.

A main objective of our work was the detailed investigation of the shape distribution as such, and we therefore avoided preaveraging. We investigated higher moments, and in one case[6] succeeded in obtaining analytically the shape distribution itself. We also give results for finite chain lengths and for nonlinear molecules.[2,3,6]

We offer our regrets to Dr. R. Koyama for our previous ignorance and oversight of his prior work.

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