

**TABLE 2.4****Effect of the Shape of a Diffusing Molecule on Diffusion in a Polymer<sup>a</sup>**

Diffusant	Diffusion Coefficient ( <i>D</i> ) × 10 <sup>9</sup> (cm <sup>2</sup> sec <sup>-1</sup> )
Propane	4.81
<i>n</i> -Butane	3.24
<i>n</i> -Pentane	2.64
<i>n</i> -Heptane	3.04
<i>n</i> -Octane	3.16
Isobutane	1.45
Isopentane	1.32
Neopentane	0.62

<sup>a</sup> Values for diffusion in polyisobutylene at 35°C (extrapolated to zero diffusant concentration) from Prager and Long (1951) and Blyholder and Prager (1960).