

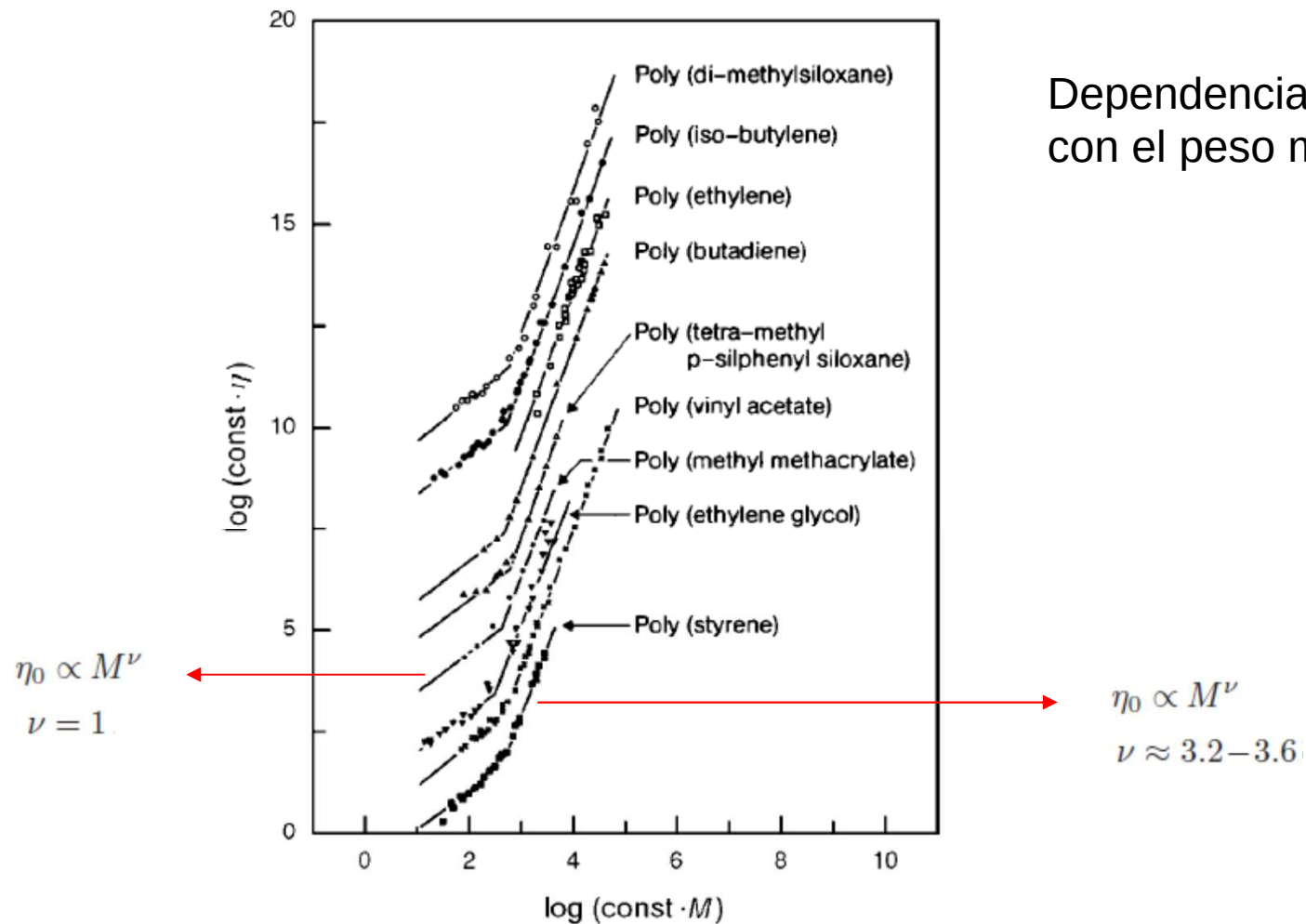


Fig. 6.13. Molecular weight dependence of the viscosity as observed for the indicated polymers. For better comparison curves are suitably shifted in horizontal and vertical directions. Data from Berry and Fox [71]

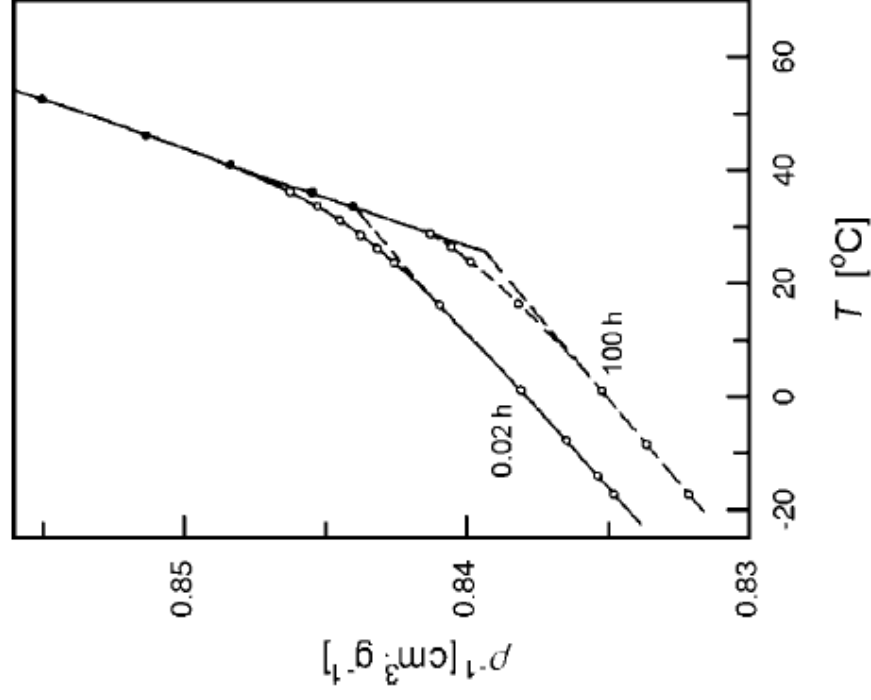


Fig. 6.25. Temperature dependence of the specific volume of PVA, measured during heating. Dilatometric results obtained after a quench to -20°C , followed by 0.02 or 100 h of storage. Data from Kovacs [79]

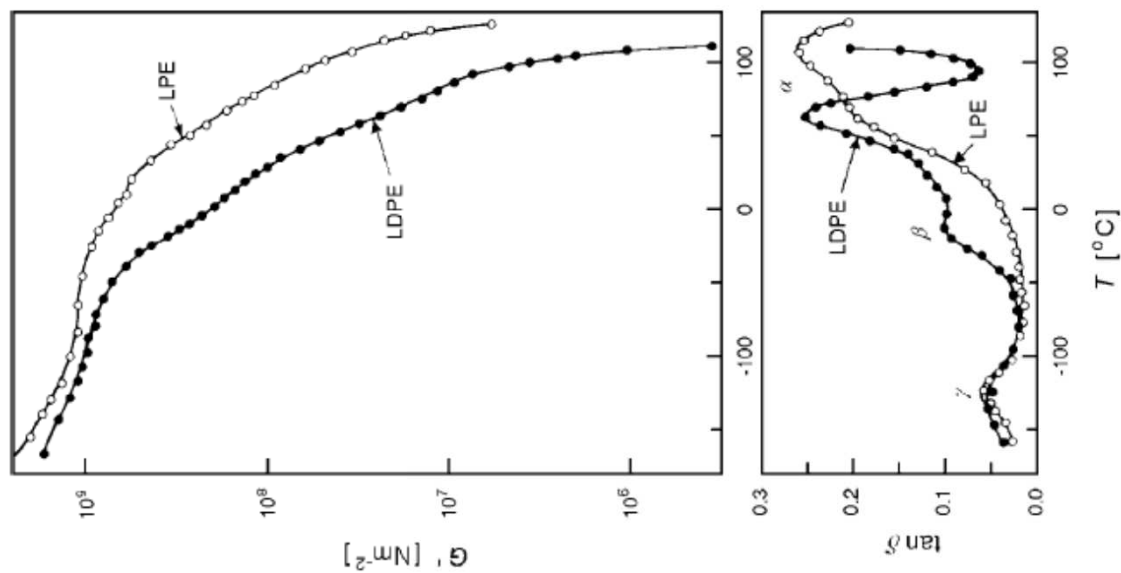


Fig. 6.28. Temperature dependence of the storage shear modulus (*top*) and the loss tangent (*bottom*) of linear (LPE) and branched polyethylene (LDPE). Data obtained by Flocke [81], using a torsion pendulum with frequencies in the order of 1 s^{-1}

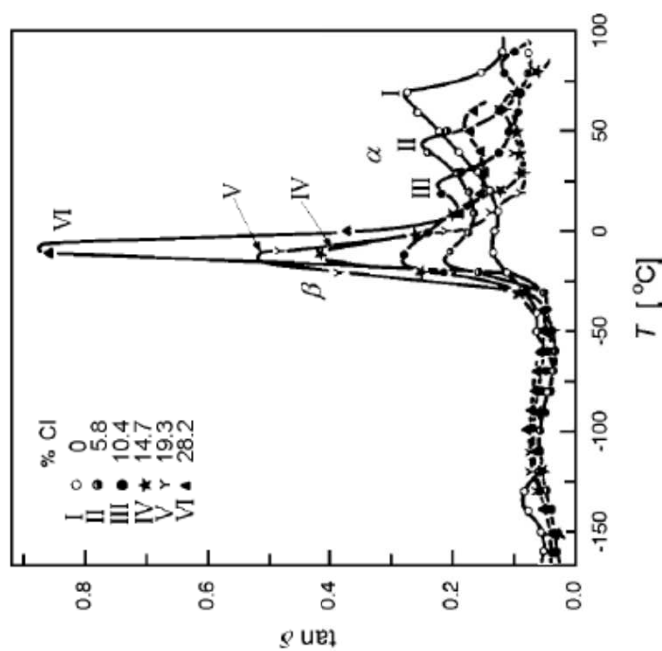


Fig. 6.29. Temperature dependence of the loss tangent of chlorinated PE, obtained for a series of different samples with chlorine contents between 0 and 28.2%. Results of a torsion pendulum measurement by Schmieder and Wolf [82]

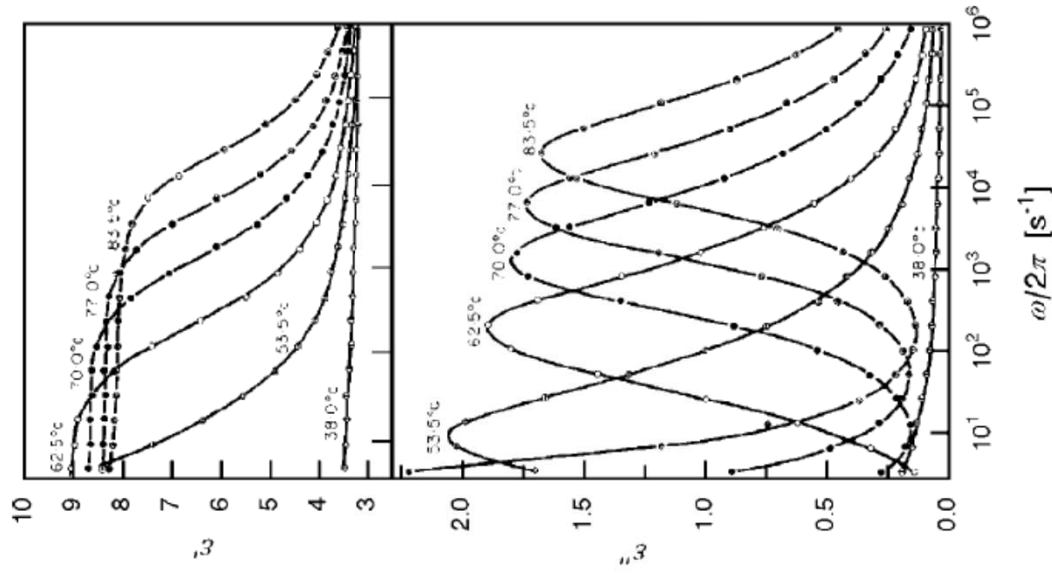


Fig. 6.18. Dielectric α -process in PVA. Data from Ishida et

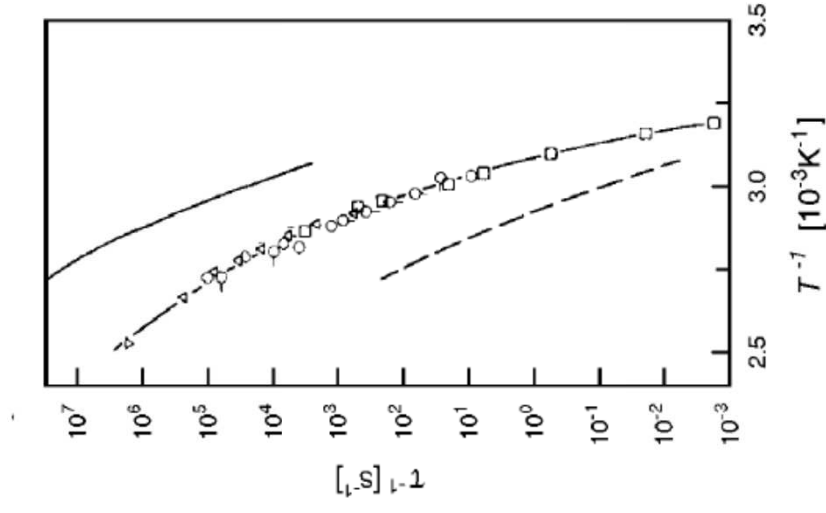
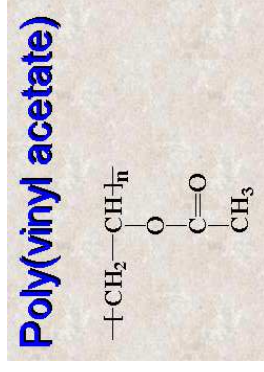


Fig. 6.19. Frequency-temperature locations of the dielectric loss maxima (*open symbols*) of PVA, compared to the maxima of G'' (*continuous line*) and J'' (*broken line*) observed in mechanical experiments. Collection of data published in [77]

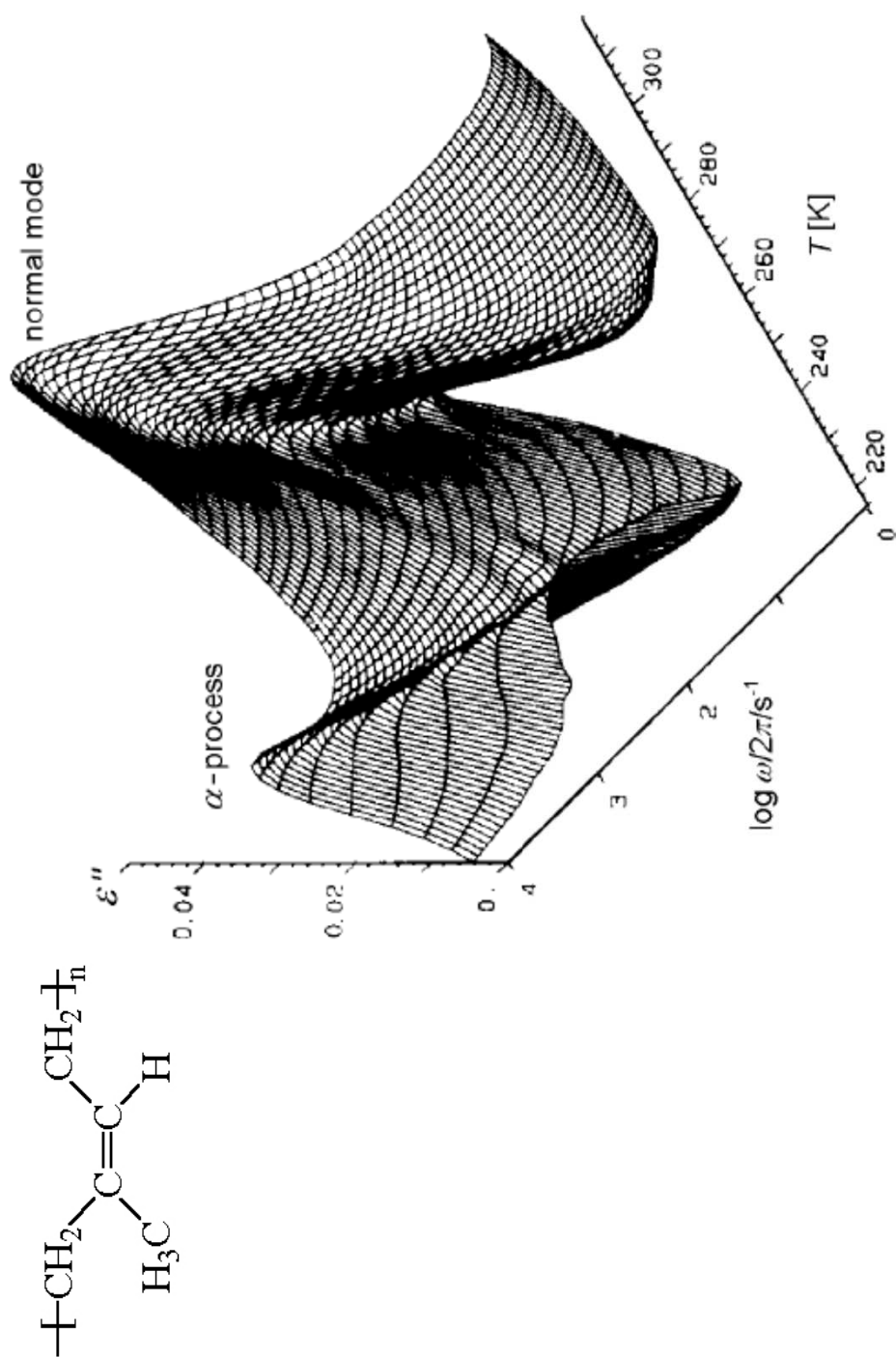


Fig. 6.20. Frequency dependence and temperature dependence of the dielectric loss in *cis*-PIP ($M = 1.2 \times 10^4 \text{ g mol}^{-1}$), indicating the activity of two groups of relaxatory modes. Spectra obtained by Boese and Kremer [78]

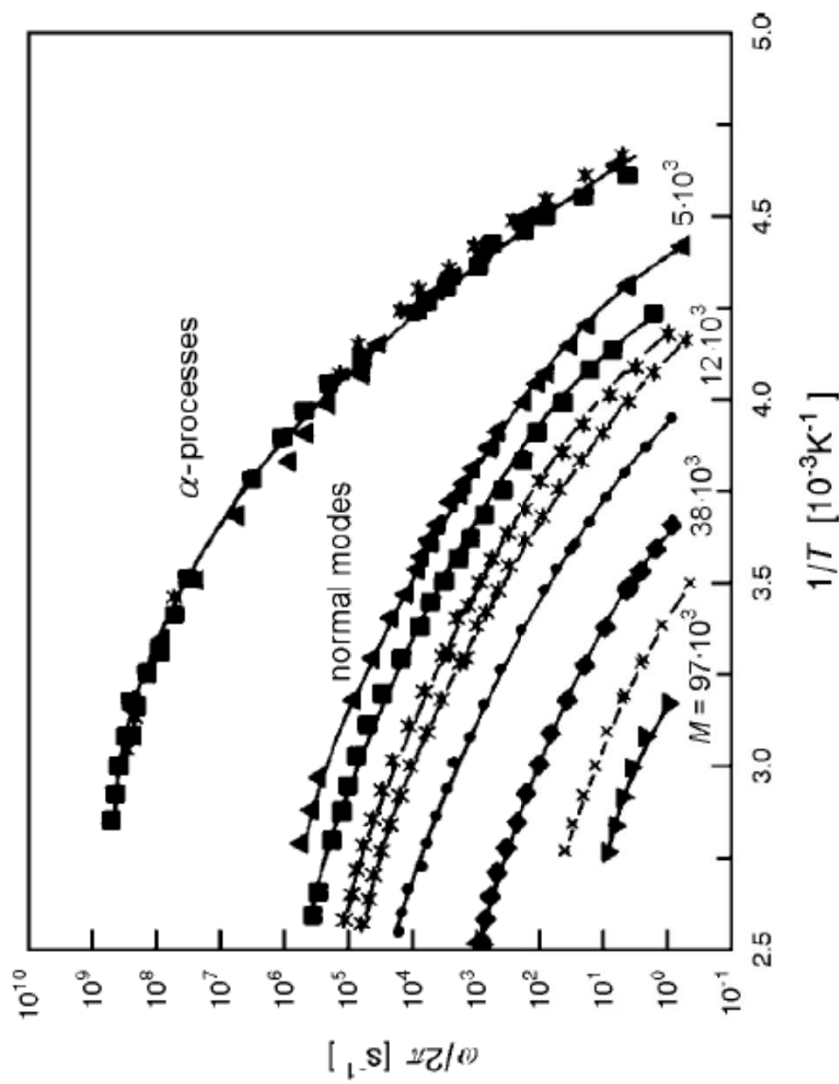


Fig. 6.21. Temperature dependence of the relaxation rates of the dielectric α -process and the normal mode, observed for samples of *cis*-PIP with different molar mass (four values are indicated). The solid lines are fits based on the WLF equation. Data from Boese and Kremer [78]

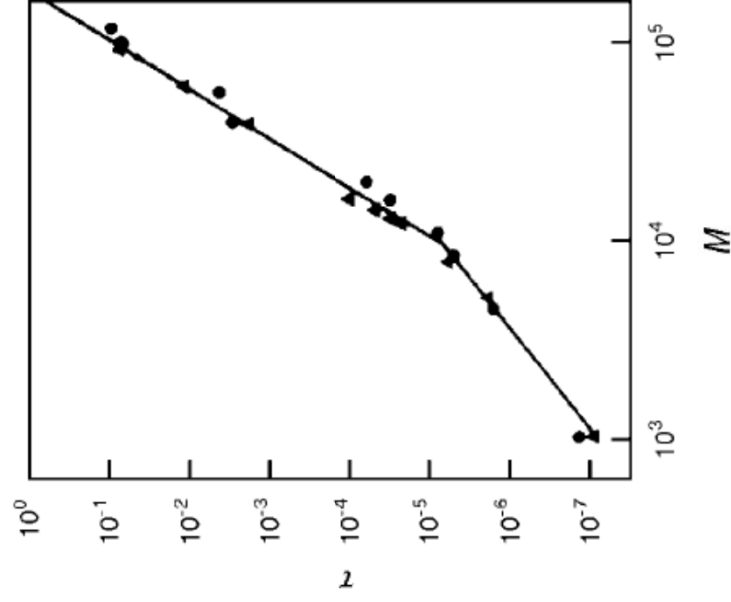
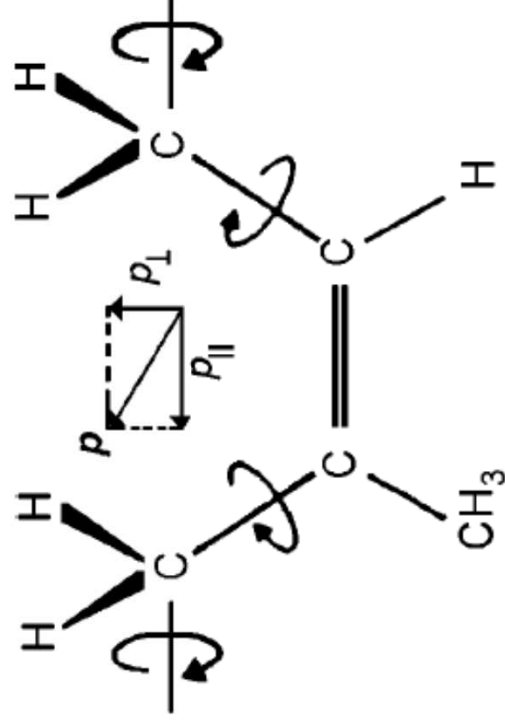
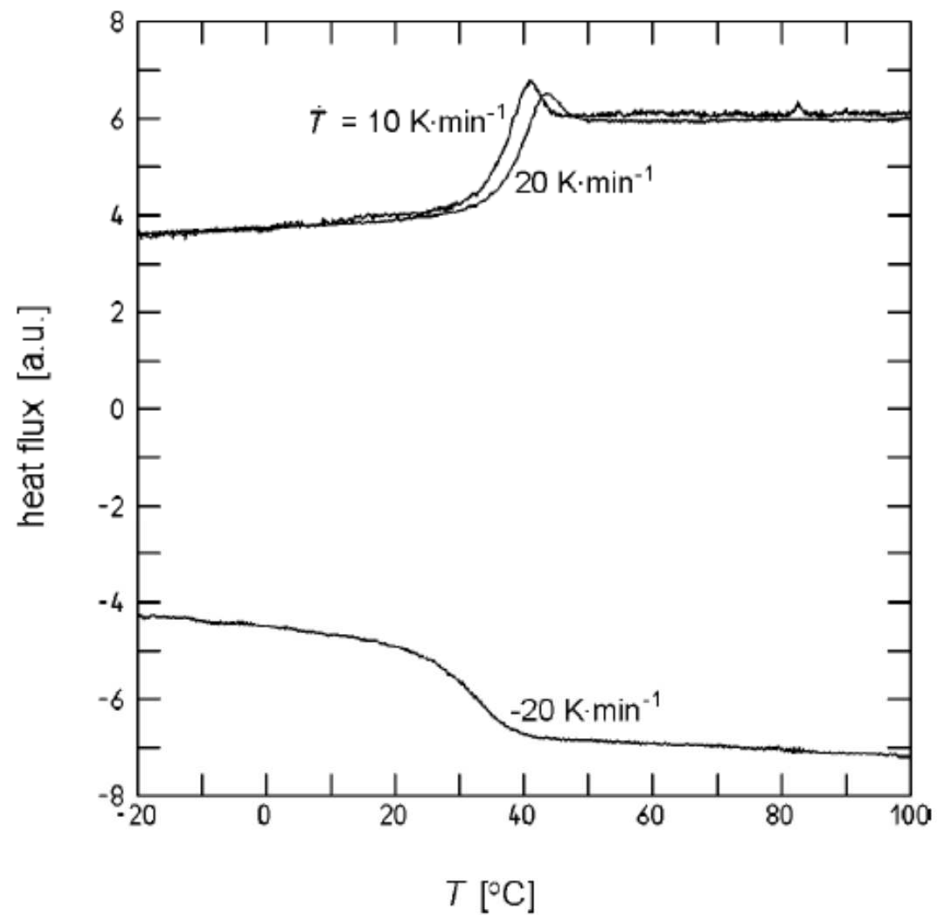


Fig. 6.22. Molecular weight dependence of the relaxation time of the dielectric normal mode in *cis*-PIP. Data from Boese and Kremer [78]



La temperatura de transición vítrea



Poly(vinyl acetate)

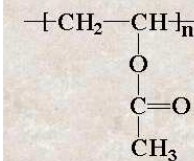


Fig. 6.26. Heat capacity of PVA, as measured in a differential calorimeter during heating (with two different heating rates) and cooling

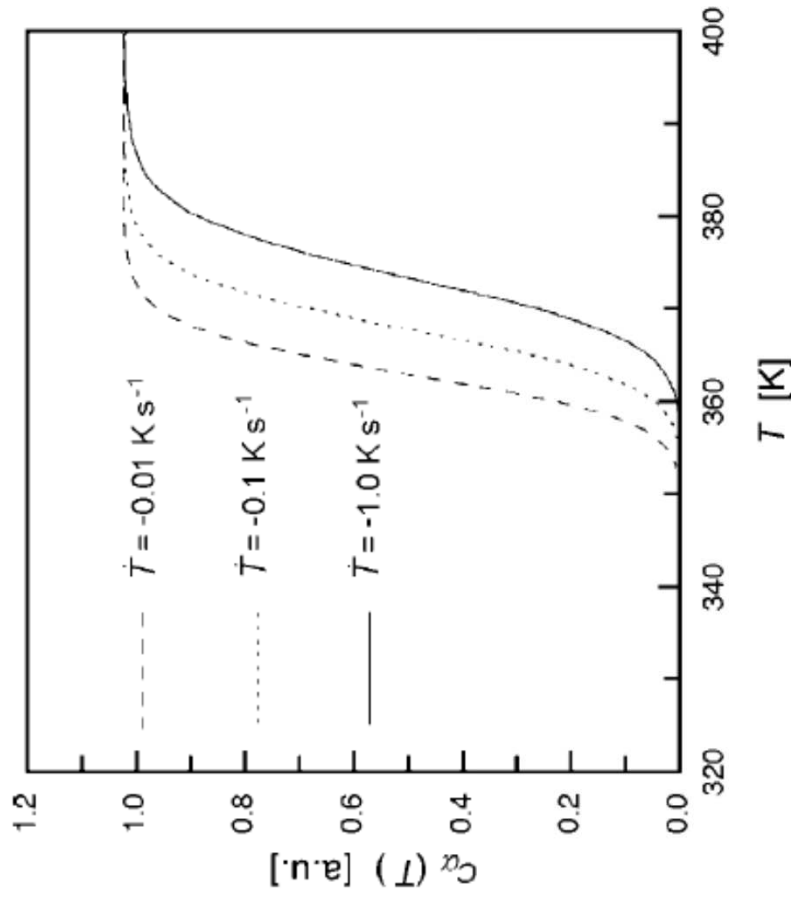


Fig. 6.27. Model calculation on the basis of Eq. (6.144), simulating heat capacity measurements during cooling runs with the indicated rates ($T_A = 2000 \text{ K}$, $T_V = 300 \text{ K}$, $\tau_\alpha(\infty) = 10^{-11} \text{ s}$, $T(t=0) = 400 \text{ K}$) [80]