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Zimm plot

A diagrammatic representation of data on scattering from large particles, corresponding to the equation:

$$\frac{K_c}{\Delta R(\theta)} = \frac{1}{\bar{M}_w P(\theta)} + 2 A_2 c + \ldots$$

and used for the simultaneous evaluation of the mass average molar mass, $\bar{M}_w$, the second virial coefficient of the chemical potential, A_2, and (usually) the z-average radius of gyration, $< s^2 >_z^{1/2}$; c is the mass concentration of the solute, $\Delta R(\theta)$ the excess Rayleigh ratio, and $P(\theta)$ the particle scattering function that comprises (usually) the z-average radius of gyration. K depends on the solute, the temperature and the type of radiation employed. Several modifications of the Zimm plot are in frequent use; the most common one uses the excess scattering instead of the excess Rayleigh ratio.

Source:
Purple Book, p. 66

