

STRUCTURE OF BIOPOLYMER SOLUTIONS AND GELS

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Over the last decade a great deal of effort has been devoted to understanding the structure of swollen polymer networks. In this quest, small angle neutron scattering (SANS) has provided much information not otherwise available. Swelling a polymer network in a low molecular weight diluent reveals the way in which the polymer unfolds and how the elastic forces exerted by cross-links produce nonuniformities in the polymer concentration in their immediate surroundings. By making SANS observations on samples swollen to different degrees [1], the competing elastic and osmotic effects ...

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REFERENCES

[1] Hecht, A.M.; Horkay, F.; Geissler, E. *Phys. Rev. E* 64 (2001) 041402.

[2] Flory, P.J. *Principles of Polymer Chemistry*, Cornell, Ithaca, 1953.