

PARTICLE SIZE ANALYSIS OF POLYMER DISPERSIONS

Particle size distributions of polymer dispersions (latex, vesicles, micelles etc.) can be obtained by measuring their sedimentation velocity in the analytical ultracentrifuge. Fig. 1 shows the sedimentation diagrams for a bimodally distributed polymer dispersion.

From those sedimentation curves initially the distribution of sedimentation coefficients $g(s)$ and subsequently by means of Stoke's law the particle size distribution $g(D)$ is calculated (Fig. 2).

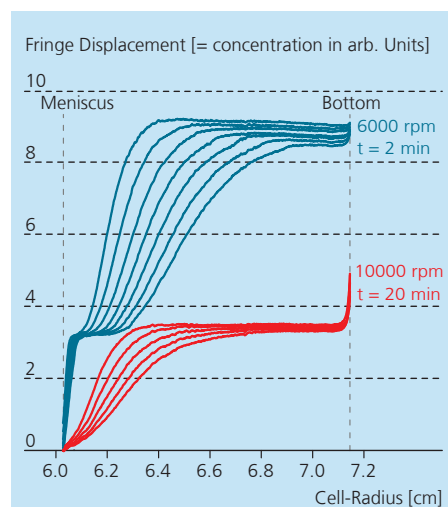


Fig. 1 Sedimentation curves for a bimodal polymer dispersion.

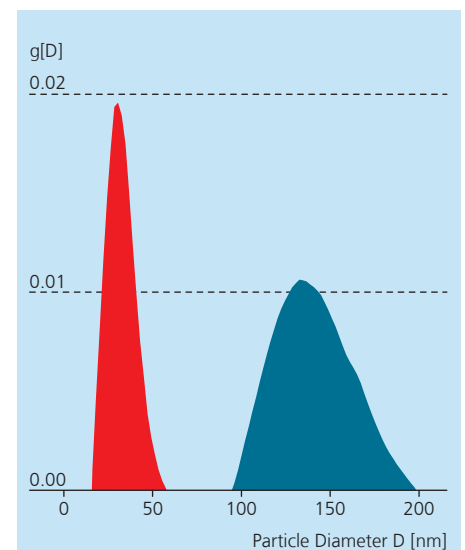


Fig. 2 Particle size distribution $g(D)$ of a bimodal polymer dispersion.

Fraunhofer Institute for Applied Polymer Research IAP

Science Park Potsdam-Golm
Geiselbergstr. 69
14476 Potsdam-Golm

Contact

Dr. Erik Wischerhoff
Phone +49 331 568-1508
erik.wischerhoff@iap.fraunhofer.de

www.iap.fraunhofer.com