

New Polymer Characterization System

Brookhaven Instruments has announced the introduction of the BI-MwA Molecular Weight Analyser for characterizing dilute polymer solutions by static light scattering (SLS). This new, small and rugged instrument employs fibre optic technology to provide simultaneous data collection at seven different angles to the incident laser beam.

The BI-MwA can be used in both batch and flow modes and has three main areas of application. From light scattering data collected at different polymer concentrations, the molecular weight, root mean square radius (radius of gyration) and second virial coefficient can be obtained thereby giving information on both size and shape of the polymer molecule. The method is absolute - i.e. it requires no calibration.

In Time Dependent Static Light Scattering

(TDLS), the BI-MwA enables polymerisation and degradation processes to be studied in real time and gives a valuable insight into the kinetics of such reactions. Such information can be of great use, for example, in optimising reactor conditions.

A third application of the new BI-MwA will be as a component part of a GPC / SEC system to provide much more detailed information about the separated polymer fractions as they elute from the column. In this and other applications, it is complemented by the BI-DNDC Differential Refractometer also recently introduced by Brookhaven.



For further information, please contact: