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Spring meeting of the Dutch society of rheology*)

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This meeting was held as a joint meeting together with the Section for Macromolecules of the Royal Dutch Chemical Society at Wageningen on Friday, May 16, 1975. The general theme was "Polymers in the fluid phase". The contributions were:

"Double refraction and viscosity of polystyrene solutions in steady flow" by *U. Daum*, Central Laboratory T.N.O., Delft;

"A cone-and-plate apparatus for the measurement of the flow-birefringence of polymer melts", by *M. G. Hansen, F. H. Gortemaker, B. de Cindio*, and *H. Janeschitz-Kriegl*, Laboratory for Physical Chemistry, Delft University of Technology;

"A new model for entangled chains in polymer solutions and melts" by *J. Mewis* and *G. Schoukens*, Catholic University, Louvain (Belgium);

"Rheological behaviour of polymer solutions under simultaneous steady and periodic shearing" by *H. J. Jalink*, University of Leiden.

The first contribution was concerned with solutions of polystyrenes with narrow molecular mass distributions ($10^5 < M_w < 1,7 \times 10^6$ g/mol) at low shear rates. Several reduction methods, as proposed in the literature in order to obtain master curves, for the zero shear viscosity and the equilibrium shear compliance, were tried for a concentration range in which entanglement structures are prevailing.

The second contribution gave a description of an apparatus which was planned for high shear rate

steady state measurements, but which could also be used for the measurement of the response on a step in the shear rate in the moderate shear rate range.

The third contribution was complementary to the first one, as it gave a new theory for concentrated polymer systems. The effect of entanglements was approximated by a force field acting on the chain segments of the *Rouse-Zimm*-model. In this way, the normal coordinate transformation could be carried out after the introduction of the interaction.

In the last contribution measurements were reported as carried out with the aid of the *Weissenberg* rheogoniometer which enables the indicated superposition.

A new board was chosen during the meeting at Wageningen:

President: Dr. ir. *H. de Vries*, AKZO-Research Laboratories, Velperweg 76, Arnhem.

Secretary: Dr. *H. C. Booij*, Central Laboratory, DSM, Heerlen.

Members: Prof. *J. M. Smith*, M. Sc., Delft University of Technology,

U. Daum, Central Laboratory T.N.O., Delft.

Ir. R. Jongepier, Kon./Shell Laboratory, Amsterdam.

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