

## **SYNTHESIS OF HYDROXY TERMINATED POLY(VINYL ACETATE) BY CHAIN TRANSFER TO SOLVENT**

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### **Abstract**

Mono-hydroxy terminated poly(vinyl acetate) was prepared by radical polymerisation in a solvent that also acts as a chain transfer agent at 60°C, using azobisisobutronitrile (AIBN) as the radical initiator. The data from these polymerisations were analysed by differentiation of the Mayo equation with respect to the concentration of solvent, which changes in concentration as the monomer concentration is varied. When 2-isopropoxy ethanol was used as solvent we observed ideal behaviour and the plot was linear with a gradient  $C_s=0.023$ . However when the data for the polymerisations performed in isopropanol were analysed in this way the graph produced was curved indicating the occurrence of more than one transfer event.

**Keywords:** Chain transfer