

EFFECTS OF THE OPERATIONAL CONDITIONS ON THE ADDITION  
OF 1-IODOPERFLUOROHEXANE TO VINYL ACETATE

A. Scipioni, M. Carbini, M. Napoli and L. Conte

Industrial Chemistry Institute, University of Padua, via Marzolo 9,  
35131, Padua (Italy)

A study has been carried out on the effects that some operational parameters have on the conversion and the reaction rate in the addition of 1-iodoperfluorohexane to vinyl acetate. The reaction was carried out at 80 °C using azobisisobutyronitrile (AIBN) as initiator; the parameters examined were: the molar ratio of the reagents, the reaction time and the AIBN concentration in the reaction mixture.

High molar ratios of vinyl acetate to 1-iodoperfluorohexane give high conversions, but favour the formation of a by-product, therefore reducing the adduct yield. The operational conditions leading to the optimum adduct/by-product yield ratio were defined. Complete conversion of 1-iodoperfluorohexane was obtained in short time (10-15 minutes) using AIBN concentrations of about 5% by weight.