

CONCLUSIONS

A study has been made of the effect of reactant concentration on the interfacial polycondensation of 4,4'-diaminodiphenylmethane and its N,N'-dialkyl derivatives (dimethyl, diethyl, dipropyl and dibutyl) with terephthalyl chloride. It is shown that the optimal concentrations increase with increasing size of the substituent and the maximal viscosity values fall. It was found that in the reaction of secondary aromatic diamines with terephthalyl chloride the optimal quantities of HCl acceptor are from 0.5 to 1.5 equivalents. It is shown that polymers of highest viscosity are obtained when the organic phase is a solvent capable of dissolving the polymer formed (benzene, CCl₄). In this case the use of a solvent-nonsolvent mixture does not bring about an increase in the molecular weight of the polymers.

Translated by E. O. PHILLIPS

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SYNTHESIS OF PHOSPHORUS-CONTAINING POLYESTERS BY POLYTRANSESTERIFICATION*

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UP TO the present time phosphorus-containing polyesters have been prepared mainly by the reaction of phosphinic acid chlorides with various glycols and dihydric phenols [1, 2]. Polyesters have also been prepared by the polymerization of cyclic phosphinic [3] and phosphoric [4] esters. In a number of cases it was shown that during the reaction a definite equilibrium is set up between the cyclic esters and the linear polyesters [5].

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