

SYNTHESIS OF ALTERNATING COPOLYMERS FROM FLUORINATED MONOMERS

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The fluorinated homopolymers exhibit excellent physical and thermal properties, UV resistances, low surface-properties. However, these products have also drawbacks owing to their crystallinity and their solubility in common organic solvents. Thus, it is interesting to copolymerize them with non fluorinated monomers which bring complementary properties.

In this presentation, we show the results of two copolymerizations (acceptor-donor type), the first one concerns the copolymerization of classic fluorinated monomers CTFE, VDF, HFP with vinyl ethers and the second one is about the copolymerization of vinyl ethers with maleimides, one of both exhibiting a lateral fluorinated chain.

The mechanisms of reactions and the structures of the obtained products are studied and finally a first evaluation of the properties is suggested.