

研究简报

## 含硅烷结构聚酯的合成及热性能研究

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摘要

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分类号

## THE SYNTHESIS AND CHARACTERIZATION OF POLYESTERS CONTAINING SILANE IN THE MOLECULAR MAIN-CHAIN

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**Abstract** Polyesters with silanes in their main chains were synthesized. These polyesters possess interesting properties such as high thermal stability,oxidative stability,low surface energy,water repellency and good dielectric properties. Thermal properties of these silane-containing polyesters were tested by differential scanning calorimetry (DSC)and thermal gravimetric analysis(TGA). The results show that the polyesters without substituents have excellent thermal stability and excellent chemical resistance. While polyesters with substituents have good solubility in polar organic solvents such as THF,DMF,DMSO,NMP,DMA and could be made into membrane material easily. These novel silane-containing polyesters could be processed as conveniently as other thermo-plastics and have high application temperature.

**Key words** [Polyester](#) [Silane](#) [Main-chain](#) [Heat properties](#)

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