عنوان مقاله:
Hybrid Inorganic-Organic materials based on Novel Polyimide/SiO2

محل انتشار:
یازدهمین سمینار بین المللی علوم و تکنولوژی پلیمر (سال: 1393)

تعداد صفحات اصل مقاله: 2

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خلاصه مقاله:
Bis(m-aminophenoxy)diphenylsilane (3-APS) as a silane diamine was prepared by the reaction of 3-aminophenol (3-AP) with dichlorodiphenylsilane(ph2SiCl2) in the presence of triethylamine(TEA). The related silane-containing polyimides were prepared by two-step polycondensation reactions of the diamine with two different aromatic dianhydrides. All the polymers were characterized and their physical and thermal properties were studied. The polymers showed high thermal stability while their solubility was greatly increased in polar aprotic solvents. Wide angle X-ray diffraction showed that all the polyimides were almost amorphous. Also their dielectric constants were decreased due to the incorporation of softening and low-polarizing siloxane units into the polymer backbone. The related nano hybrids based on SiO2 were synthesized and characterized

کلمات کلیدی:
Polyimide, Polycondensation, Hybrid, SiO2

لینک ثابت مقاله در پایگاه سیویلیکا: