

研究简报

氧化偶联聚合方法合成电活性聚芳醚酮

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摘要 通过氧化偶联聚合方法成功地合成出电活性聚芳醚酮. 该反应条件温和, 操作简单, 室温下即可进行. 用红外光谱、核磁共振谱、高效凝胶渗透色谱、循环伏安、热失重、X射线衍射等技术对所合成的聚合物进行了表征, 并探讨了聚合物的性能.

关键词 [聚芳醚酮](#) [电活性](#) [氧化偶联聚合](#)

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Synthesis of Electroactive Poly(aryl ether ketone) *via* Oxidative Coupling Polymerization Method

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Abstract A novel electroactive poly(aryl ether ketone), with fixed conjugated length of oligoaniline(phenyl-capped aniline tetramer) in the main chain, was successfully synthesized *via* oxidative coupling polymerization method. The structure of poly(aryl ether ketone) was systematically studied by Fourier-transform infrared(FTIR) spectra, ¹H NMR, and X-ray powder diffraction(XRD). And its electrochemical behavior was studied by cyclic voltammetry(CV) measurement. It was found that the obtained poly(aryl ether ketone) bearing phenyl-capped aniline tetramer segments had a reversible electrochemical property in the cyclic voltammetry, which was the same as that of polyaniline. Moreover, the thermal properties of poly(aryl ether ketone) were evaluated by thermogravimetric analysis(TGA).

Key words [Poly\(aryl ether ketone\)](#) [Electroactivity](#) [Oxidative coupling polymerization](#)

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