

研究简报

可自交联超支化聚醚醚酮的合成与热性能研究

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摘要

关键词 [超支化聚醚醚酮](#) [交联](#) [封端法](#)

分类号

SYNTHESIS AND THERMAL PROPERTIES OF SELF CROSS-LINKING HYPERBRANCHED POLY(ETHER ETHER KETONE)

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Abstract Fluoro-terminated hyperbranched poly(aryl ether ketone)(HPOP—PEEK—F) with 4-phenoxyphenyl side groups was prepared from A₂(2-(4-phenoxyphenyl)-1,4-diphend) and B₃(1,3,5-tris[4-(4-flourobenzoyl) phenoxy]benzene) with a function group ratio of 0.48: 1(A₂: B₃). The chemical structure of HPOP-PEEK—F was confirmed by FTIR and ¹H-NMR. The degree of branching(DB) of HPOP-PEEK—F was 0.66 determined by ¹H-NMR measurements. The phenyl ethynyl-terminated hyperbranched poly(ether ether ketone)(HPOP—PEEK-PEP) was prepared by the end-capping approach. The HPOP—PEEK—PEP showed high glass transition temperature than HPOP-PEEK-F, but exhibited lower thermal stability. After cross-linking, the glass transition temperature, thermal stability and anti-chemical errodibility of HPOP—PEEK—PEP were all improved.

Key words [Hyperbranched poly \(ether ether ketone\) s](#) [Cross-linking](#) [Phenyl ethynyl](#) [End-capping approach](#)

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