

PROCESS AND PRODUCT TECHNOLOGY

烷氧基和酚氧基取代的茂铁盐阳离子光引发剂的合成和表征

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摘要 Alkyl-substituted ferrocenium salts have limited solubility in epoxy oligomers and produce poisonous arene by photolysis. Herein, the synthesis and photoactivity of several alkoxy-substituted ferrocenium salts as long-wavelength UV light photoinitiators have been reported. [Cyclopentadien-Fe-anisole]PF₆, [Cyclopentadien-Fe-anisole]BF₄, [Cyclopentadien-Fe-diphenylether]PF₆, [Cyclopentadien-Fe-diphenylether]BF₄, and [Cyclopentadien-Fe-diethoxybenzene] PF₆ for polymerization of epoxy resin were prepared through the ligand exchange reaction between one ring of ferrocene and aromatic ether. They all display good solubility and photoinitiating activities in epoxy resins.

关键词 [photoinitiator](#) [cationic polymerization](#) [ferrocenium salt](#) [photoinitiating activity](#)

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Synthesis and characterization of alkoxy and phenoxy-substituted ferrocenium salt cationic photoinitiators

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Abstract Alkyl-substituted ferrocenium salts have limited solubility in epoxy oligomers and produce poisonous arene by photolysis. Herein, the synthesis and photoactivity of several alkoxy-substituted ferrocenium salts as long-wavelength UV light photoinitiators have been reported. [Cyclopentadien-Fe-anisole]PF₆, [Cyclopentadien-Fe-anisole]BF₄, [Cyclopentadien-Fe-diphenylether]PF₆, [Cyclopentadien-Fe-diphenylether]BF₄, and [Cyclopentadien-Fe-diethoxybenzene] PF₆ for polymerization of epoxy resin were prepared through the ligand exchange reaction between one ring of ferrocene and aromatic ether. They all display good solubility and photoinitiating activities in epoxy resins.

Key words [photoinitiator](#); [cationic polymerization](#); [ferrocenium salt](#); [photoinitiating activity](#)

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