

研究简报

Pd(OAc)₂/Cu(OTf)₂在离子液体BMImPF₆中催化苯乙烯二聚反应的研究

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摘要 在离子液体BMImPF₆中,用不同的钯催化剂和Lewis酸三氟甲磺酸铜Cu(OTf)₂共催化苯乙烯二聚反应,发现用Pd(OAc)₂/Cu(OTf)₂作催化剂, Pd/Cu物质的量之比为1~4时,可高产率高选择性地获得苯乙烯二聚产物1,3-二苯基-1-丁烯. BMImPF₆对催化剂有较好的溶解性,可固定催化剂体系,使催化剂有效地与产品分离.同时, α -甲基苯乙烯的二聚反应表明,室温下不发生反应,提高温度有利于反应进行.

关键词 [苯乙烯二聚](#) [室温离子液体](#) [Pd\(OAc\)₂/Cu\(OTf\)₂催化剂](#)

分类号

Study on the Dimerization of Styrene Catalyzed with Pd(OAc)₂/Cu(OTf)₂ System in Ionic Liquid BMImPF₆

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Abstract Dimerization of styrene was co-catalyzed with the different palladium complexes and Cu(OTf)₂ in ionic liquid BMImPF₆, in which Pd(OAc)₂/Cu(OTf)₂ was found the best catalyst system. When molar ratio of Pd(OAc)₂/Cu(OTf)₂ was 1/1~4/1, both high catalytic activity and selectivity were obtained. The Pd(OAc)₂/Cu(OTf)₂ catalyst system has excellent solubility in ionic liquid BMImPF₆, and can be easily separated from the product. The results of dimerization of α -methylstyrene indicate that no products were detected at room temperature and it is beneficial to the reaction to raise temperature.

Key words [dimerization of styrene](#) [room temperature ionic liquid](#) [Pd\(OAc\)₂/Cu\(OTf\)₂ catalyst](#)

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