

胶团噻唑衍生物对安息香不对称合成反应的催化作用

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摘要 通过 α -(1-萘基)-N-硫代甲酰乙胺与卤代酮反应制得六个光学活性的4-烷基-3- α -(1-萘基)乙基噻唑溴化物(烷基碳链长=1,2,7,11,15,21). 将其用于催化水溶液中的安息香缩合反应, 所得产物收率约20-30% 具有较高的光学纯度(47-57%). 在各种缓冲溶液中测定了S(+)-4-甲基-3- α -(1-萘基)乙基噻唑氯化物(Ta)的胶团性质和由它催化的不对称安息香缩合反应. 临界胶团浓度(cmc)证明(Ta)在反应中确以胶团形式催化. 在硼砂溶液中, 安息香的收率高达61%, 光学纯度23.6%.

关键词 [噻唑 P](#) [缩合反应](#) [催化](#) [胶束](#) [萘 P](#) [表面化学](#) [烷烃 P](#) [临界质量](#) [安息香](#) [不对称反应](#)

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Asymmetric benzoin condensation catalyzed by optical active micellar thiazolium salts

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Abstract Six optically active 4-alkyl-3- α -(1-naphthyl)ethylthiazolium salts I (n = 1, 2, 7, 11, 15, 21) were prepared by the reaction of α -(1-naphthyl)-N-(thioformyl)ethylamine with haloketones. When these optically active thiazolium salts were used as catalysts in the benzoin condensation, reasonable yield (20-30%) and moderate optical purity (47-57%) of benzoin was obtained in aqueous solution. The micellar properties of (+)-I (n = 1, X = Cl) (II) in various buffer solution and asym. benzoin condensation using II as catalyst were studied. The observation of crit. micelle concentration (cmc) in various buffer solns. shows that II exists as a micelle to catalyze the benzoin condensation. The yield of benzoin up to 61% with optical purity of 23.6% was obtained in the presence of borax.

Key words [THIAZOLE P](#) [CONDENSATION REACTION](#) [CATALYSIS](#) [MICELLE](#) [NAPHTHALENE P](#) [SURFACE CHEMISTRY](#) [ALKANE P](#) [CRITICAL MASS](#) [GUM BENZOIN](#)

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