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CO~2(CO)~8/吡啶络合催化苯乙烯氢羧化反应的研究

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摘要 在苯乙烯氢羧化反应(Hydrocarboxylation)中,Co~2(CO)~8的催化活性很低,
吡啶的加入可显著提高催化活性,CO~2(CO)~8与吡啶的配比不同时,对 反应活性,收率和正,
异构产物的比例均有影响,而且与反应温度有关.此外,还观察了各种吡啶衍生物对氢羧化反应的影响.

关键词 苯乙烯 均相催化 羰基络合物 吡啶 钴络合物 络合催化

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Study on hydrocarboxylation of styrene using Co~2(CO)3/pyridine complex as catalyst

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Abstract The hydrocarboxylation of PhCH:CH2 with CO in MeOH under pressure catalyzed by Co2(CO)8 to give a mixture of PhCH2CH2CO2Me, MeCHPhCO2Me, and PhEt was greatly enhanced by the addition of pyridine or its alkyl-substituted derivatives The effects of temperature and pressure on the catalytic activity of pyridine were studied. The mechanism for the catalysis was discussed.

Key words STYRENE HOMOGENEOUS CATALYSIS CARBONYL COMPLEX PYRIDINE COBALT COMPLEX COMPLEX CATALYSIS

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