

新型P,N配体及基1,4-共轭加成反应

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摘要 以2-萘酚为起始原料,经过氧化偶联,消旋体的拆分得到手性骨架2-氨基-2'-羟基-1,1'-联萘(NOBIN),并以S-NOBIN为原料,经过六步反应合成了两个新型配体S-(+)-2-(2-吡啶酰胺基)-2'-二苯基膦基-1,1'-联萘(1a)和S-(+)-2-(6-甲基-2-吡啶酰胺基)-2'-二苯基膦基-1,1'-联萘(1b)。并进行了铜配合物催化的二乙基锌对2-环己烯酮的1,4-共轭加成反应的研究。反应产物3-乙基环己酮(13)的e.e.值高达92%。

关键词 [加成反应](#) [手性拆分](#) [环己烯酮](#) [吡啶P](#) [膦P](#) [联萘](#)

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synthesis of novel P,N ligands and their application in enantioselective 1,4-conjugate addition

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Abstract Chiral 2-amino-2'-hydroxy-1,1'-binaphthyl (NOBIN) was obtained by resolution of racemic NOBIN, which was prepared by catalytic cross-coupling of 2-naphthol and 2-amino-naphthylene. Two structurally novel chiral P, N ligands, S-(+)-2-(2-pyridinyl-carboxamido)-2'-diphenylphosphino-1,1'-binaphthyl(1a) and S-(+)-2-(6-methyl-2-pyridinylcarboxamido)-2'-diphenyl-phosphino-1,1'-binaphthyl(1b), were synthesized in six steps from the chiral framework of S-NOBIN. The enantioselective 1,4-conjugate addition of diethylzinc to 2-cyclohexen-1-one catalyzed by Cu(I)/1 complexes was performed. 3-ethylcyclohexanone(13) of up to 92% e.e. was obtained with 1b as the ligand under the optimum conditions.

Key words [ADDITION REACTION](#) [PYRIDINE P](#) [BINAPHTHYL](#)

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