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研究论文

Pt(DVDS)-Phan催化的末端炔烃的硅氢加成反应

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摘要 以Pt(DVDS)-Phan体系作为末端炔烃与三乙基硅烷或三苯基硅烷进行硅氢加成的催化剂, 除三甲基硅乙炔与三乙己硅烷反应外, 其余反应的收率均高于90%, 并且高选择性地或唯一地得到马氏加成产物或者反马氏反式加成产物, 立体选择性或区域选择性超过95%.

关键词 末端炔烃 硅氢加成 烯基硅烷 Pt催化体系 非离子超强碱

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Hydrosilylation of Terminal Alkynes Catalyzed by Pt(DVDS)-Phan Complex

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Abstract The catalyst system Pt(DVDS)-proazaphosphatrane, containing a bulky aminophospine ligand, was used to catalyze the hydrosilylation of various terminal alkynes with Et3SiH or Ph3SiH. These reactions occurred efficiently and stereo- and regioselectively. Anti-markonikov E-products or Markonikov α-products were obtained with a selectivity >95% in a yield >90% except in one case where the selectivity and the yield were a little lower.

Key words Terminal alkyne; Hydrosilylation; Vinylsilane; Pt catalyst system; Nonionic super base

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