

雪松烷二醇硼酸酯的合成及其不对称同系化反应

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摘要 报道了手性试剂雪松烷二醇硼酸酯(3)的合成及其和二氯甲基锂进行不对称同系化反应,生成 α -氯代硼酸酯4R和4S,其R/S的比率在25:1以上,并且有手性助剂容易回收的特点。通过对同系化产物4cR的单晶X衍射分析,发现其分子中的1,3-二氧杂-2-硼杂环戊烷为非平面结构,文中就这一结构特点进行了初步讨论,解释了雪松烷二醇硼酸酯容易水解的原因。

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Preparation and homologation of cedranediol boronic esters

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Abstract (-)-Cedranediol boronic esters 3, a series of asymmetric homologation reagents were prepared from a new chiral director (-)-cedranediol 1 and boronic acids. 1 was easily synthesized by the dihydroxylation of (-)- α -cedrene 2 with OsO₄. Homologation of cedranediol boronic esters 3 with (dichloromethyl) lithium resulted in (R)- α -chloro boronic esters 4, with R/S-ratios over 25:1. It is easy to recover cedranediol for its boronic esters prone to rapid hydrolysis. The absolute configuration of cedranediol (R)-1-chloro-2-phenylethylboronate 4cR was determined by X-ray diffraction. The distortion of the five-membered 1, 3, 2-dioxaborolane ring of 4cR was found and discussed.

Key words [ASYMMETRY](#) [HOMOLOGATION](#) [CHIRAL REAGENT](#) [X-RAY DIFFRACTION ANALYSIS](#)

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