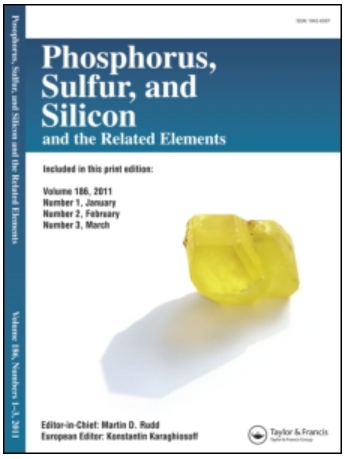

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A Comparative Study of the Cyclic Chlorophosphites with C_2-Symmetrical Organic Fragments as the Reagents for Enantiomeric Composition Control of the Chiral Alcohols

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A Comparative Study of the Cyclic Chlorophosphites with C_2-Symmetrical Organic Fragments as the Reagents for Enantiomeric Composition Control of the Chiral Alcohols

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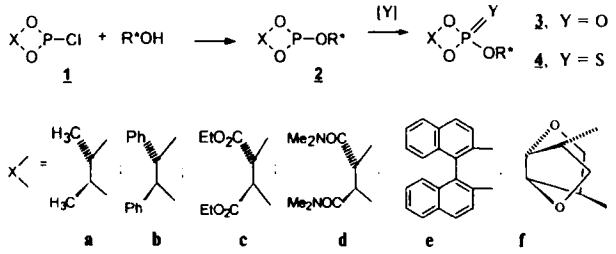
The ^{31}P NMR method is intensively used for enantiomeric composition control during the last years [1]. Among all other derivatizing agents the C_2-symmetrical ones have some advantages.

In the present communication the number of cyclic chlorophosphites **1a** - **1f** were investigated in the sequence of the following reactions with the uniform set of chiral alcohols R*OH:



The analysis of the diastereomeric composition of the compounds **2-4** by the ^{31}P NMR reveals the original enantiomeric composition of the analysed R*OH. The P(III) derivatives **2** show the better diastereomeric shift dispersions than the P(IV) compounds. Based on the availability, easiness to handle, ^{31}P NMR parameters, and diastereoselectivity we can recommend the reagents **1d** and **1e** for the practical use for express analysis of the enantiomeric excess of the chiral alcohols.

References

[1] R. Hulst, R.M. Kellogg, B.L. Feringa, *Rec. trav. chim.*, **114**, 115–138, (1995).