

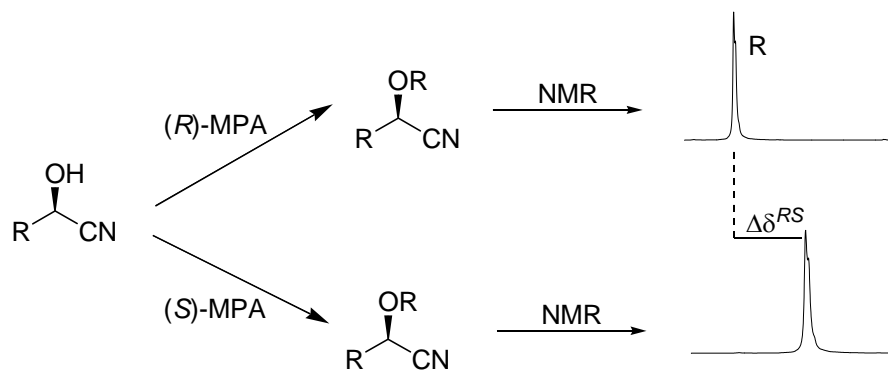
## Assigning the Absolute Configuration of Cyanohydrins by NMR of MPA derivatives.

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The use of <sup>1</sup>H NMR as a tool for the assignment of absolute configuration has been described for several classes of organic compounds derivatized with selected chiral derivatizing agents (CDAs).<sup>1</sup> Chiral cyanohydrins are well known natural products and versatile synthetic intermediates. They can be easily produced by addition of cyanide to the carbonyl compound in the presence of chiral catalysts or by enzymatic methods and transformed into  $\alpha$ -hydroxy acids,  $\alpha$ -amino acids,  $\alpha$ -hydroxy aldehydes,  $\alpha$ -hydroxy ketones or  $\beta$ -amino alcohols, among others.

In this communication we will describe a simple procedure that requires derivatization of a cyanohydrin with the two enantiomers of the auxiliary reagent (MPA). The comparison of the <sup>1</sup>H NMR spectra of the corresponding MPA ester derivatives allows the assignment of the absolute configuration (Scheme 1).<sup>2</sup>



**Scheme 1**

These results and other experimental data (Dynamic NMR, CD spectroscopy, X Ray analysis and theoretical calculations) corroborate the representativity of the conformational model and conformational composition proposed.

[1] Seco, J.M.; Quiñoá, E. and Riguera, R., *Chem. Rev.*, **2004**, *104*, 17-117.

[2] Louzao, I.; Seco, J.M.; Quiñoá, E. and Riguera, R., *Chem. Commun.*, **2006**, *13*, 1422-1424

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