Enantioseparation of Selected Chiral Sulphoxides in High-Performance Liquid Chromatography with Polysaccharide-Based Chiral Columns and Polar Organic Mobile Phases

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Study of physical and chemical mechanisms of separation of enantiomers is very importan issue in separation science. High-performance liquid chromatography (HPLC) represents the major method for separation of enantiomers. For better understanding of chiral recognitiomn mechanisms a determination of enantiomer elution order is very important.

In the present work the enantiomer elution order of chiral sulphoxides has been studied in HPLC by using polar-organic mobile phases and novel type of chiral columns such as Lux Cellulose-1, Lux Cellulose-2, Lux Cellulose-3, Lux Cellulose-4, Lux Amylose-2 and SP-6. The interesting examples of the enantiomer elution order reversal were found based on the composition of the stationary as well the mobile phase.