Separation of enantiomers of chiral sulfoxides with chloro-methyl-substitued tris-phenylcarbamate of cellulose as chiral selectors in high-performance liquid chromatography

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We carried out screening of newly synthesized chiral sulfoxides on their chiral recognition ability with tris-phenylcarbamate of cellulose as chiral selectors in high-performance liquid chromatography.. By systematic variation of the chemistry and structure of chiral selectors and selectands those structural features must be prevailed which are most critical for selector-selectand binding and chiral recognition ability. In this presentation I have discussed only columns with chloro-methyl substituted-phenylcarbamates and it gave some interesting results.

Our experiment was held by the help of HPLC. We have tested chiral sulfoxides.

Chiral selectors: Cellulose-2 and Cellulose-4

We carried out analysis using mobile phases: methanol, ethanol, isopropanol and the mixture of n-Hexane and isopropanol.

Chiral recognition ability is dramatically affected by the fine structural modification of the structure of a chiral selector or selectand.

Key words: chiral selector, chiral sulfoxide, mobile phase