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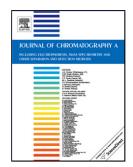
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ACCEPTED MANUSCRIPT

A chromatographic study on the exceptional chiral recognition of 2-(benzylsulfinyl)benzamide by an immobilized-type chiral stationary phase based on cellulose tris(3,5-dichlorophenylcarbamate)

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Highlights

- -We described the HPLC behavior of a small set of chiral sulfoxides on the IC-3 CSP.
- -By using *n*-hexane-2-propanol 80:20 as a mobile phase, α was 150 for one of them.
- -HPLC data suggested the presence of HB interactions in the unusual enantioseparation.
- An HPLC protocol determined the α -value at low % of 2-propanol in the eluent.

Abstract

In previous studies, Okamoto et al. described the results of the exceptionally large chiral recognition of 2-(benzylsulfinyl)benzamide onto a coated-type chiral stationary phase based on cellulose tris(3,5-dichlorophenylcarbamate). As a continuation and deepening of those studies, here the sulfoxide and a small set of its structural analogues were analyzed on the commercially available Chiralpak IC-3 chiral stationary phase based upon the same polysaccharide derivative as the chiral selector but immobilized onto silica support.

The chromatographic results obtained using different mobile phases consisting of pure methanol, ethanol and 2-propanol or binary mixtures n-hexane-2-propanol, which are prohibited with the progenitor coated-type chromatographic support, permitted to identify the NH₂ of the amide group as the key structural element of the

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