

## Chiral separation of novel diazenes on a polysaccharide-based stationary phase in the reversed-phase mode.

### Autorzy

Terézia Vojtylová  
Véra Hamplová  
Zbigniew Galewski  
Izabela Korbecka

David Sýkora

### Rok wydania

2017

### Czasopismo

Journal of Separation  
Science

### Numer woluminu

40

### Strony

1465-1469

### DOI

10.1002/jssc.201601386

### Kolekcja

Naukowa

### Język

Angielski

### Typ publikacji

Artykuł

### Streszczenie

Chiral high-performance liquid chromatography separation of two recently synthesized liquid crystalline materials C1 and C2 was studied in the reversed-phase mode. Both materials have an azo-moiety and one chiral center in their molecular structures. They were available in racemic and pure S forms. For the enantiomeric separations, a Chiralpak AY-RH stationary phase based on amylose tris(5-chloro-2-methylphenylcarbamate) coated on 5  $\mu\text{m}$  silica was used. The compounds were analyzed in both of their possible forms, the more thermodynamically stable E form and the labile Z form. The conditions and time scale of the UV-induced E to Z transition were briefly evaluated. Under the optimized conditions, we were able to baseline separate S and R enantiomers of both of the studied materials not only in their E forms, but also in their Z forms. In comparison to the separation in the normal-phase mode, which we have reported recently, the resolution in the reversed-phase mode is significantly better. Interestingly, peak reversal was noticed for the S and R enantiomers when the separation was carried out with E versus Z forms of both compounds.

### Słowa kluczowe

azobenzene, chiral separation, high-performance liquid chromatography, liquid-crystalline materials, photo-induced isomerization

### Adres publiczny

<http://dx.doi.org/10.1002/jssc.201601386>

### Strona internetowa wydawcy

[onlinelibrary.wiley.com](http://onlinelibrary.wiley.com)