

## Discussion

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# Analytical studies on the chiral separation and simultaneous determination of pantothenic acid and hopantenic acid enantiomers in rat plasma by gas chromatography–mass fragmentography

## Reply to Küsters *et al.*

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As has been pointed out in the reply by Küsters *et al.* [1], there obviously are two asymmetric centres in the sulphinate, and our presented chromatogram showed the separation of only one pair of enantiomers. In this study we did not probe deeply into the problem because our main purpose was to determine pantothenic acid and hopantenic acid in rat plasma using methylation and trifluoroacetylation.

Küsters *et al.* [1] mentioned that pantothenic acid was converted into pantoyllactone with *ca.* 80–90% yield. However, this result did not occur in the derivatization with methylation and trifluoroacetylation of pantothenic acid in our labora-

tory. We obtained both good linearity and good precision for the determination of pantothenic acid and hopantenic acid. Hence we conclude that methylation proceeds smoothly.

We are interested in the sulphination of hydroxyl groups, and we are now investigating the sulphination using another method to obtain additional information.

## REFERENCE

- 1 E. Küsters, C. Spöndlin and C. Eder, *J. Chromatogr.*, 576 (1992) 179.