

	My J-STAGE Sign in
🖉 🔶 🔶 Analytical Sciences	
The Japan Society for Analytical Chemistry	
Available Issues Japanese >>>	Publisher Site
Author: <u>ADVANCED</u> Volume Page	
Keyword: Search	Go
Add to Favorite / Citation Add to Articles Alerts Add to Publications Alerts	?My J-STAGE HELP

<u>TOP</u> > <u>Available Issues</u> > <u>Table of Contents</u> > Abstract

ONLINE ISSN : 1348-2246 PRINT ISSN : 0910-6340 Analytical Sciences Vol. 26 (2010) , No. 9 p.943 [PDF (564K)] [References]

Enantiomeric Separation by Capillary Electrochromatography on a Sulfated Poly β -Cyclodextrin Modified Silica-based Monolith

<u>Ruijuan YUAN¹</u>, <u>Yan WANG²</u> and <u>Guosheng DING²</u>

1) School of Chinese Pharmacy, Beijing University of Chinese Medicine 2) School of Pharmaceutical Science & Technology, Tianjin University

(Received February 21, 2010) (Accepted June 17, 2010)

A sulfated poly β -cyclodextrin (SPCD) modified silica-based monolithic column was prepared for enantiomeric separation. First, 2-hydroxy-3-allyloxy-propyl- β -cyclodextrin (allyl- β -CD) was bonded onto a bifunctional reagent 3-(methacryloxy)propyltriethoxysilane (γ -MAPS) modified silica-based monolith through radical polymerization; the column was then sulfated with chlorosulfonic acid. The SPCD chiral stationary phase resolved the boring problem associated with desalting when sulfated CDs were synthesized to act as chiral additives. The inorganic salt in the column introduced during the sulfating process could be easily removed by washing the column with water for some time. Chiral compounds investigated were successfully resolved into their enantiomers on the SPCD modified monolith in the capillary electrochromatography (CEC) mode. Due to the existence of the $-SO_3H$ group, electrosmotic flow (EOF) was obviously increased, and all of the separations could be carried out in 20 min with only a minor loss in the column efficiency and resolution.

[PDF (564K)] [References]

To cite this article: Ruijuan YUAN, Yan WANG and Guosheng DING, *Anal. Sci.*, Vol. 26, p.943, (2010).

doi:10.2116/analsci.26.943 JOI JST.JSTAGE/analsci/26.943

Copyright (c) 2010 by The Japan Society for Analytical Chemistry

