

[Available Issues](#) | [Japanese](#)>> [Publisher Site](#)Author: [ADVANCED](#) | Volume Page
Keyword: [TOP](#) > [Available Issues](#) > [Table of Contents](#) > [Abstract](#)

ONLINE ISSN : 1348-2246

PRINT ISSN : 0910-6340

Analytical Sciences

Vol. 26 (2010) , No. 6 p.641

[\[PDF \(218K\)\]](#) [\[References\]](#)**Separation of Optical Isomers in Capillary Chromatography Using a Poly(tetrafluoroethylene) Capillary Tube and an Aqueous–Organic Mixture Carrier Solution**[Seiji ISHIMOTO^{1\)}](#), [Naoya JINNO^{1\)}](#), [Masahiko HASHIMOTO^{1\)}](#) and [Kazuhiko TSUKAGOSHI^{1\)}](#)*1) Department of Chemical Engineering and Materials Science, Faculty of Science and Engineering, Doshisha University***(Received April 30, 2010)****(Accepted May 10, 2010)**

Capillary chromatography for the separation of optical isomers was developed using an untreated poly(tetrafluoroethylene) capillary tube and a water–hydrophilic/hydrophobic organic solvent mixture as a carrier solution. The open tubular capillary was 110 cm in length (90 cm effective length) and 100 μm in inner diameter. The carrier solution was prepared with a water–acetonitrile–ethyl acetate mixture (15:3:2 volume ratio) containing 1 mM β -cyclodextrin. A model analyte solution of dansyl-DL-methionine was injected into the capillary tube by a gravity method. The analyte solution was subsequently delivered through the capillary tube with the carrier solution by a microsyringe pump; the system worked under laminar-flow conditions. The analytes were separated through the capillary tube with on-capillary detection by an absorption detector. D-Isomer and L-isomer were eluted in this order with the water-acetonitrile–ethyl acetate carrier solution including β -cyclodextrin.

[\[PDF \(218K\)\]](#) [\[References\]](#)Download Meta of Article [\[Help\]](#)[RIS](#)[BibTeX](#)

To cite this article:

Seiji ISHIMOTO, Naoya JINNO, Masahiko HASHIMOTO and Kazuhiko TSUKAGOSHI, *Anal. Sci.*, Vol. 26, p.641, (2010) .

doi:10.2116/analsci.26.641

JOI JST.JSTAGE/analsci/26.641

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



[Japan Science and Technology Information Aggregator, Electronic](#)

