

## Accepted Manuscript

An analytical model for enantioseparation process in capillary electrophoresis

G.A. Ranzuglia, S.J. Manzi, M.R. Gomez, R.E. Belardinelli, V.D. Pereyra



PII: S0378-4371(17)30654-4

DOI: <http://dx.doi.org/10.1016/j.physa.2017.06.013>

Reference: PHYSA 18398

To appear in: *Physica A*

Received date : 8 February 2017

Revised date : 18 May 2017

Please cite this article as: G.A. Ranzuglia, S.J. Manzi, M.R. Gomez, R.E. Belardinelli, V.D. Pereyra, An analytical model for enantioseparation process in capillary electrophoresis, *Physica A* (2017), <http://dx.doi.org/10.1016/j.physa.2017.06.013>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

Highlight

- An analytical model of enantioseparation in capillary electrophoresis experiment is proposed.
- The mobilities of the enantiomers are analyzed from the evolution of the distributions of particles in the capillary.
- The signals in a capillary electrophoresis experiment are reproduced and the behavior of enantioseparation with chiral concentration is in accordance with the well known Wren and Rowe formula.
- A capillary electrophoresis experiment for the enantiomeric separation of the ( $\pm$ ) chlorpheniramine/ $\beta$ -cyclodextrin system is studied and reproduced by both the analytical model and kinetic Monte Carlo simulation.

Download English Version:

<https://daneshyari.com/en/article/5102543>

Download Persian Version:

<https://daneshyari.com/article/5102543>

[Daneshyari.com](https://daneshyari.com)