

## Accepted Manuscript

Title: Study of the influence of surfactants on the activity coefficients and mass transfer coefficients of methanol in aqueous mixtures by Reversed-Flow Gas Chromatography

Authors: Efthimios Kotsalos, Boryana Brezovska, Dimitrios Sevastos, Artemis Vagen, Athanasia Koliadima, John Kapolos, George Karaiskakis



PII: S0021-9673(17)31413-9  
DOI: <https://doi.org/10.1016/j.chroma.2017.09.051>  
Reference: CHROMA 358880

To appear in: *Journal of Chromatography A*

Received date: 26-7-2017  
Revised date: 22-9-2017  
Accepted date: 22-9-2017

Please cite this article as: Efthimios Kotsalos, Boryana Brezovska, Dimitrios Sevastos, Artemis Vagen, Athanasia Koliadima, John Kapolos, George Karaiskakis, Study of the influence of surfactants on the activity coefficients and mass transfer coefficients of methanol in aqueous mixtures by Reversed-Flow Gas Chromatography, *Journal of Chromatography A* <https://doi.org/10.1016/j.chroma.2017.09.051>

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.

Study of the influence of surfactants on the activity coefficients and mass transfer coefficients of methanol in aqueous mixtures by Reversed-Flow Gas Chromatography

Efthimios Kotsalos<sup>a</sup>, Boryana Brezovska<sup>a</sup>, Dimitrios Sevastos<sup>a</sup>, Artemis Vagena<sup>a</sup>, Athanasia Koliadima<sup>a</sup>, John Kapolos<sup>b</sup> and George Karaiskakis<sup>a\*</sup>

a: Department of Chemistry, University of Patras, GR-26504 Patras, Greece

b: Department of Food Technology, TEI of Peloponnese, 24100 Kalamata, Greece

\*Corresponding author: G. Karaiskakis, Department of Chemistry, University of Patras, 26504 Patras, Greece, Tel/Fax.: 003026210997144, e-mail address: G.Karaiskakis@chemistry.upatras.gr.

### Highlights

1. Activity coefficients of methanol in liquid mixtures.
2. Mass transfer coefficients for the evaporation of methanol.
3. Retardation evaporation of methanol by surfactants.
4. Reversed flow gas chromatography for the thermodynamic study of methanol solutions.
5. Reversed flow gas chromatography for the evaporation of methanol.

### ABSTRACT

This work focuses on the influences of surfactants on the activity coefficients,  $\gamma$ , of methanol in binary mixtures with water, as well as on the mass transfer coefficients,  $k_c$ , for the evaporation of methanol, which is a ubiquitous component in the troposphere, from mixtures of methanol with water at various surfactant's and methanol's concentrations.

Download English Version:

<https://daneshyari.com/en/article/7609671>

Download Persian Version:

<https://daneshyari.com/article/7609671>

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