

Accepted Manuscript

Title: Implementation of a generic liquid chromatographic method development workflow: application to the analysis of phytocannabinoids and *Cannabis sativa* extracts

Authors: Szabolcs Fekete, Vida Sadat-Noorbakhsh, Cedric Schelling, Imre Molnár, Davy Guillarme, Serge Rudaz, Jean-Luc Veuthey



PII: S0731-7085(18)30454-0
DOI: <https://doi.org/10.1016/j.jpba.2018.03.059>
Reference: PBA 11890

To appear in: *Journal of Pharmaceutical and Biomedical Analysis*

Received date: 20-2-2018
Revised date: 28-3-2018
Accepted date: 29-3-2018

Please cite this article as: Szabolcs Fekete, Vida Sadat-Noorbakhsh, Cedric Schelling, Imre Molnár, Davy Guillarme, Serge Rudaz, Jean-Luc Veuthey, Implementation of a generic liquid chromatographic method development workflow: application to the analysis of phytocannabinoids and *Cannabis sativa* extracts, *Journal of Pharmaceutical and Biomedical Analysis* <https://doi.org/10.1016/j.jpba.2018.03.059>

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.

**Implementation of a generic liquid chromatographic method development workflow:
application to the analysis of phytocannabinoids and *Cannabis sativa* extracts**

Szabolcs Fekete^{a†}, Vida Sadat-Noorbakhsh^{a†}, Cedric Schelling, Imre Molnár^b, Davy
Guillarme^a, Serge Rudaz^a, Jean-Luc Veuthey^a,

^aSchool of Pharmaceutical Sciences, University of Geneva, University of Lausanne, Rue
Michel Servet, 1, 1206 Geneva 4, Switzerland

^bMolnár-Institute for applied chromatography, Schneegloeckchenstrasse 47, 10407 Berlin,
Germany

Correspondence: Szabolcs Fekete

Phone: +41 22 37 963 34

Fax: +41 22 379 68 08

E-mail: szabolcs.fekete@unige.ch

([†]) These authors contributed equally

Highlights

- A generic RPLC method development workflow was proposed
- Screening, optimization, virtual refinement and virtual robustness testing were done
- This workflow was applied to phytocannabinoids and *Cannabis sativa* extracts
- This whole procedure takes only around 4 days of work

Abstract

A generic liquid chromatographic method development workflow was developed and successfully applied to the analysis of phytocannabinoids and *Cannabis sativa* extracts. Our method development procedure consists in four steps:

i) The screening of primary parameters (i.e. stationary phase nature, organic modifier nature and approximate mobile phase pH) was carried out with a generic gradient on a short narrow bore column, using a system able to accommodate numerous solvents/buffers and columns. Instead of complete peak tracking, the number of peaks which can be separated was considered as a response at this level, to save time.

Download English Version:

<https://daneshyari.com/en/article/7626223>

Download Persian Version:

<https://daneshyari.com/article/7626223>

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