ACQUITY UPC² Journal Articles

March 2012 – December 2015

A total of 142 scientific journal articles on applications for Waters UPC² technology.

**Advanced Materials Research**

*Analysis of Paclitaxel in Pharmaceutical Injection by Ultra Performance Convergence Chromatography*

*July 2014*

[http://dx.doi.org/10.4028/www.scientific.net/AMR.989-994.1060](http://dx.doi.org/10.4028/www.scientific.net/AMR.989-994.1060)

*Keywords:* Paclitaxel, Chinese Academy of Tropical Agricultural Sciences, Shannxi University, chemotherapy, pharmaceutical, Beh 2-EP, impurity profiling

**Analytical and Bioanalytical Chemistry**

*Simultaneous Enantioselective Determination of Triadimefon and its Metabolite Triadimenol in Edible Vegetable Oil by Gel Permeation Chromatography and UltraPerformance Convergence Chromatography/Tandem Mass Spectrometry*

*September 2015*

[http://dx.doi.org/10.1007/s00216-015-9046-y](http://dx.doi.org/10.1007/s00216-015-9046-y)

*Keywords:* Zhejiang University, Shanghai Institute of Organic Chemistry, stereoisomeric separation, triadimenol, triadimefon, vegetable oil, food

*Analytical Method Development for the Determination of Emerging Contaminants in Water Using Super-Critical Fluid Chromatography Coupled with Diode-Array Detection*

*March 2015*

[http://dx.doi.org/10.1007/s00216-015-8581-x](http://dx.doi.org/10.1007/s00216-015-8581-x)

*Keywords:* Universidad de Colima, emerging contaminants, Viridis BEH 2-EP, water samples, endocrine disruptors, triclosan, diuran, glyburide, carbamazepine, estradiol, ethinyl estradiol, bisphenol A, environmental
Analysis of Glucuronide and Sulfate Steroids in Urine by Ultra-
High-Performance Supercritical-Fluid Chromatography
Hyphenated Tandem Mass Spectrometry

March 2015

http://dx.doi.org/10.1007/s00216-015-8573-x

Keywords: LUNAM University, LABERCA, steroid profiling, conjugated steroids, glucuronide, sulfate steroids, anabolic steroids, steroid isomers, hormones, veterinary drug residue, bovine urine, food

Stereoselective Separation and Pharmacokinetic Dissipation of
the Chiral Neonicotinoid Sulfoxaflor in Soil by Ultraperformance
Convergence Chromatography/Tandem Mass Spectrometry

August 2014

http://dx.doi.org/10.1007/s00216-014-8089-9

Keywords: Chinese Academy of Agricultural Sciences, sulfoxaflor, sterioisomeric separation, enantioselective degradation, Chiralpak IA-3, soil, environmental

Analytical Chemistry

Chromatographic Evidence of Silyl Ether Formation (SEF) in
Supercritical Fluid Chromatography

December 2014

http://dx.doi.org/ 10.1021/ac5035709

Keywords: Waters Corporation, silyly ether formation, surface chemistry, particle chemistry

Chromatographic Resolution of Closely Related Species in
Pharmaceutical Chemistry: Dehalogenation Impurities and Mixtures
of Halogen Isomers

December 2013

http://dx.doi.org/10.1021/ac403376h

Keywords: Merck, halogen isomers, dehalogenated isosteres, Hypersil Gold PFP, Chiralcel, Chiralpak, Zorbax, pharmaceutical

Analyst
Alkaloids Analysis Using an Off-Line Two-Dimensional Supercritical Fluid Chromatography × Ultra-High Performance Liquid Chromatography

March 2014

http://dx.doi.org/10.1039/C4AN00438H

Keywords: East China University, alkaloids, BEH, BEH 2-EP, XAmide, CSH FP, HSS T3, pharmaceutical

Analytica Chimica Acta

Development and Validation of Ultra-High Performance Supercritical Fluid Chromatography Method for Determination of Illegal Dyes and Comparison to Ultra-High Performance Liquid Chromatography Method

May 2015

http://dx.doi.org/10.1016/j.aca.2015.03.003

Keywords: Charles University, red dye, sudan red, spices, CSH, food

Ultra High Performance Supercritical Fluid Chromatography Coupled with Tandem Mass Spectrometry for Screening of Doping Agents. I: Investigation of Mobile Phase and MS Conditions

October 2014

http://dx.doi.org/10.1016/j.aca.2014.10.004

Keywords: Charles University, University of Geneva, doping agents, Swiss Laboratory for Doping Analyses, health science

Ultra High Performance Supercritical Fluid Chromatography Coupled with Tandem Mass Spectrometry for Screening of Doping Agents. II: Analysis of Biological Samples

October 2014

http://dx.doi.org/10.1016/j.aca.2014.10.007

Keywords: Charles University, University of Geneva, doping agents, Swiss Laboratory for Doping Analyses, urine, health science

Investigating Sub-2 μm Particle Stationary Phase Supercritical Fluid Chromatography Coupled to Mass Spectrometry for Chemical Profiling of Chamomile Extracts
July 2014

http://dx.doi.org/10.1016/j.aca.2014.06.031

Keywords: Waters, University of Mississippi, Kings College, chamomile, tea extracts food

Modern Analytical Supercritical Fluid Chromatography Using Columns Packed with Sub-2 μm Particles: A Tutorial

May 2014

http://dx.doi.org/10.1016/j.aca.2014.03.034

Keywords: Charles University, University of Geneva, Waters Corporation, lipophilic, hydrophilic, basic drugs, tutorial, pharmaceutical

Supercritical Fluid Chromatography as a Tool for Enantioselective Separation – A Review

February 2014

http://dx.doi.org/10.1016/j.aca.2014.02.036

Keywords: Charles University, enantioselective separation, enantiomers, chiral separations, review,

**Analytical Methods**

Rapid Separation of Hexabromocyclododecane Diastereomers Using a Novel Method Combining Convergence Chromatography and Tandem Mass Spectrometry

February 2015

http://dx.doi.org/10.1039/C4AY02923B

Keywords: Waters, Orebro University, diastereomers, brominated flame retardants, HSS, whale blubber, human serum, environmental

Rapid Analysis of Non-Steroidal Anti-Inflammatory Drugs in Tap Water and Drinks by Ionic Liquid Dispersive Liquid–Liquid Microextraction Coupled to Ultra-High Performance Supercritical Fluid Chromatography

August 2014

http://dx.doi.org/10.1039/c4ay01305k
Keywords: Beijing University of Chemical Technology, tap water, drinking water, non-steroidal anti-inflammatory drugs, nabumetone, ibuprofen, naproxen and diclofenac, NSAIDs, environmental

*Development of Supercritical Fluid (Carbon Dioxide) Based Ultra Performance Convergence Chromatographic Stability Indicating Assay Method for the Determination of Clofarabine in Injection*

October 2013

[http://dx.doi.org/10.1039/C3AY41561A](http://dx.doi.org/10.1039/C3AY41561A)

Keywords: Mylan Labs, clofaribine, stability indicating method, BEH 2-EP, pharmaceutical

*Supercritical Fluid (carbon dioxide) Based Ultra Performance Convergence Chromatography for the Separation and Determination of Fulvestrant Diastereomers*

July 2013

[http://dx.doi.org/10.1039/C3AY40802G](http://dx.doi.org/10.1039/C3AY40802G)

Keywords: Mylan Labs, fluvestrant diastereomers, stability indicating method, BEH 2-EP, pharmaceutical

**Angewandte Chemie**

*Dienamine-Mediated Inverse-Electron-Demand Hetero-Diels–Alder Reaction by Using an Enantioselective H-Bond-Directing Strategy*

December 2012

[http://dx.doi.org/10.1002/anie.201207122](http://dx.doi.org/10.1002/anie.201207122)

Keywords: Aarhus University, asymmetric synthesis, bifunctional catalysis, dienamines, dihyrdopyrans, organocatalysis, chemistry

**Applied Mechanics and Materials**

*Analysis of Chemical Constituents in Jackfruit Peel by UPC²/Q-TOF-MS Method*

May 2014

[http://dx.doi.org/10.4028/www.scientific.net/AMM.556-562.607](http://dx.doi.org/10.4028/www.scientific.net/AMM.556-562.607)

Keywords: Chinese Academy of Tropical Agricultural Sciences, Northeast Agricultural University, Hainan University, jackfruit peel, HSS, food
**Chemical Communications**

*Organocatalytic Cascade Reactions: Diversity-Oriented Synthesis for the Construction of Hydroisoquinoline Scaffolds*

*April 2014*

[http://dx.doi.org/10.1039/C4CC01231C](http://dx.doi.org/10.1039/C4CC01231C)

Keywords: Aarhus University, enantioselective synthesis, hydroisoquinolines, chemistry

**Chemico Biological Interactions**

*Lipidomics: Novel Insight Into the biochemical mechanism of Lipid Metabolism and Dysregulation-Associated Disease*

*October 2015*

[http://dx.doi.org/10.1016/j.cbi.2015.09.005](http://dx.doi.org/10.1016/j.cbi.2015.09.005)

Keywords: Northwest University, State Food and Drug Administration, lipid metabolism, lipids, lipidomics, biomarkers, health science

**Chemistry, A European Journal**

*Organocatalytic Cascade Reactions: Towards the Diversification of Hydroisochromenes and Chromenes through Two Different Activation Modes*

*July 2014*

[http://dx.doi.org/10.1002/chem.201403505](http://dx.doi.org/10.1002/chem.201403505)

Keywords: Aarhus University, hydroisochromenes, chromenes, organocatalysis, chemistry

*Organocatalytic Enantioselective Cycloaddition Reactions of Dienamines with Quinones*

*November 2013*

[http://dx.doi.org/10.1002/chem.201303526](http://dx.doi.org/10.1002/chem.201303526)

Keywords: Aarhus University, organocatalysis, quinones, chemistry

*Breaking Symmetry with Symmetry: Bifacial Selectivity in the Asymmetric Cycloaddition of Anthracene Derivatives*
February 2013

http://dx.doi.org/10.1002/chem.201300142

Keywords: Aarhus University, anthracene, chemistry

Chirality

Chromatographic Separation and Assignment of Absolute Configuration of Hydroxywarfarin Isomers

December 2013

http://dx.doi.org/10.1002/chir.22274

Keywords: Merck, hydroxywarfarin isomers, chiral SFC, human liver microsomes, pharmaceuticals

Improved Chiral SFC Screening for Analytical Method Development

August 2013

http://dx.doi.org/10.1002/chir.22218

Keywords: Merck, chiral sfc, method development, Chiralpak, Chiralcel, Phenomenex, pharmaceutical

Chromatographia

Fast Separation Method Development for Supercritical Fluid Chromatography Using an Autoblending Protocol

April 2014

http://dx.doi.org/10.1007/s10337-014-2684-y

Keywords: Chengdu Institute of Biology, method development, enantioseparations, health science

Chromatography Today

Separation of Pharmaceuticals by SFC Using Mono and Di-Hydroxy Substituted Phenyl Stationary Phases

November/December 2014

Click here for article
Drug Development and Industrial Pharmacy

A Silica-Supported Solid Dispersion of Bifendate Using Supercritical Carbon Dioxide Method with Enhanced Dissolution Rate and Oral Bioavailability

Published online July 2015

http://www.tandfonline.com/doi/abs/10.3109/03639045.2015.1071833#.VcDcwvlVhBc

Keywords: Shenyang Pharmaceutical University, bifendate, bioavailability, pharmacokinetics, veterinary, pharmaceuticals

Drug Discovery Today

Delivering the Promise of SFC: A Case Study

May 2014

http://dx.doi.org/10.1016/j.drudis.2014.04.021

Keywords: AstraZeneca, purification, case study, pharmaceutical

Drug Testing and Analysis

Determination of a Selection of Synthetic Cannabinoids and Metabolites in Urine by UHPSFC-MS/MS and by UHPLC-MS/MS

August 2015

http://dx.doi.org/10.1002/dta.1844

Keywords: Norwegian Institute of Public Health, synthetic cannabinoids, metabolites in urine, forensic toxicology

Ecotoxicology and Environmental Safety

Chiral Bioaccumulation Behavior of Tebuconazole in the Zebrafish (Danio rerio)

April 2016

http://dx.doi.org/10.1016/j.ecoenv.2015.12.007
Keywords: Shenyang Agricultural University, Chinese Academy of Agricultural Sciences, State Key Laboratory for Biology of Plant Diseases and Insect Pests, tebuconazole, zebrafish, bioaccumulation

**European Journal of Pharmaceutical Sciences**

*Analytical Advances in Pharmaceutical Impurity Profiling*

*Available online December 2015*

[http://dx.doi.org/10.1016/ejps.2015.12.007](http://dx.doi.org/10.1016/ejps.2015.12.007)

**European Respiratory Journal**

*Application of ‘Omics Technologies to Biomarker Discovery in Inflammatory Lung Diseases*

*February 2013*

[http://dx.doi.org/10.1183/09031936.00078812](http://dx.doi.org/10.1183/09031936.00078812)

Keywords: Karolinska Institute, omics, biomarker discovery, lung disease, health science

**Food Analytical Methods**

*A New Method for Determination of α-Tocopherol in Tropical Fruits by Ultra Performance Convergence Chromatography with Diode Array Detector*

*January 2014*

[http://dx.doi.org/10.1007/s12161-014-9789-7](http://dx.doi.org/10.1007/s12161-014-9789-7)

Keywords: Agricultural Product Processing Research Institute, Chinese Academy of Tropical Agricultural Sciences, tocopherol, food

**Food Chemistry**

*Vitamin E Analysis by UltraPerformance Convergence Chromatography and Structural Elucidation of Novel (alpha)tocodienol by High Resolution Mass Spectrometry*

*April 2016*

[http://dx.doi.org/10.1016/j.foodchem.2015.09.073](http://dx.doi.org/10.1016/j.foodchem.2015.09.073)

Keywords: Palm Nutraceuticals, Research Instruments SDN, Matrix Analytical Technologies, tocodienol, palm oil, α-Tocodienol, tocopherol, tocotrienol, vitamins, food
Ultra-Performance Convergence Chromatography (UPC²) Method for the Analysis of Biogenic Amines in Fermented Foods

April 2014

http://dx.doi.org/10.1016/j.foodchem.2014.04.063

Keywords: Agricultural Product Processing Research Institute, Chinese Academy of Tropical Agricultural Sciences, biogenic amines, fermented foods, yulu, sufu, food

Chemical Profiling of Triacylglycerols and Diacylglycerols in Cow Milk Fat by Ultra-Performance Convergence Chromatography Combined with Quadrupole Time-of-Flight Mass Spectrometry

January 2014

http://dx.doi.org/10.1016/j.foodchem.2013.07.114

Keywords: Shanghai Jiao Tong University, triacylglycerols and diacylglycerols tags, dags, cow milk, food

Green Chemistry

Preparation of Bio-Based Surfactants from Glycerol and Dodecanol by Direct Etherification

September 2014

http://dx.doi.org/10.1039/C4GC00818A

Keywords: East China University of Science and Technology, surfactants, glycerol, dodecanol, chemical materials

Journal of Agricultural and Food Chemistry

Stereoselective Determination of Tebuconazole in Water and Zebrafish by Supercritical Fluid Chromatography Tandem Mass Spectrometry

June 2015

http://dx.doi.org/10.1021/acs.jafc.5b02450

Keywords: Shenyang Agricultural University, tebuconazole enantiomers, zebrafish, food

November 2014

http://dx.doi.org/10.1021/jf504324t

Keywords: Institute of Plant Protection, Chinese Academy of Sciences, flutriafol enantiomers, vegetables, fruit, soil, environmental, food

Journal of the American Chemical Society

Catalytic Asymmetric Synthesis of 4-Nitropyrazolidines: An Access to Optically Active 1,2,3-Triamines

July 2014

http://dx.doi.org/10.1021/ja506694v

Keywords: Aarhus University, enantioselective synthesis, diasteroselective synthesis, chemistry

Asymmetric Organocatalytic Thio-Diels–Alder Reactions via Trienamine Catalysis

March 2013

http://dx.doi.org/10.1021/ja4007244

Keywords: Aarhus University, enantioselective synthesis, diasteroselective synthesis, chemistry

Journal of Chromatography A

A Simple, Accurate, Time-Saving and Green Method for the Determination of 15 Sulfonamides and Metabolites in Serum Samples by Ultra-High Performance Supercritical Fluid Chromatography

Available online December 2015

doi:10.1016/j.chroma.2015.12.075

Keywords: Chinese Academy of Inspection and Quarantine, Chinese Medical University
Ultra-Fast High-Efficiency Enantioseparations by Means of a Teicoplanin-Based Chiral Stationary Phase Made on Sub-2 Totally Porous Silica Particles of Narrow Size Distribution

Available online December 2015

doi:10.1016/j.chroma.2015.11.071

Keywords: Sapienza, Ferrara, Sigma Aldrich, chiral carboxylic acids

Application of Ultra-High Performance Supercritical Fluid Chromatography for the Determination of Carotenoids in Dietary Supplements

Available online November 2015

http://dx.doi.org/10.1016/j.chroma.2015.11.029

Keywords: Beijing Center for Disease Control and Prevention, food

Evaluation of Scale-Up from Analytical to Preparative Supercritical Fluid Chromatography

Available online November 2015

http://dx.doi.org/10.1016/j.chroma.2015.11.001

Keywords: Karlstadt University, AstraZeneca, chiral separations, design of experiments

Fast Separation of Selected Cathinones and Phenyethylamines by Supercritical Fluid Chromatography

December 2015

http://dx.doi.org/10.1016/j.chroma.2015.10.061

Keywords: Palacky University in Olomouc, University of Texas, Institute of Microbiology, v.v.i., designer drugs, BEH silica, BEH 2-ethylpyridine, CSH Fluoro-Phenyl, and HSS C18SB

Method Development Approaches in Supercritical Fluid Chromatography Applied to the Analysis of Cosmetics

December 2015

http://dx.doi.org/10.1016/j.chroma.2015.10.053

Keywords: Orleans, Groupe Yves Rocher, column screening, stationary phase, sunscreens, eye liner, eye serum, glyceryl caprylate, caffeine, UV filters
Application of Cinchona Alkaloid-Based Zwitterionic Chiral Stationary Phases in Supercritical Fluid Chromatography for the Enantioseparation of N(alpha)-Protected Proteinogenic Amino Acids

October 2015

http://dx.doi.org/10.1016/j.chroma.2015.08.058

Keywords: University of Szeged, University of Vienna, enantiomer, Chiralpak, proteinogenic amino acids

An Attempt to Estimate Ionic Interactions with Phenyl and Pentafluorophenyl Stationary Phases in Supercritical Fluid Chromatography

September 2015

http://dx.doi.org/10.1016/j.chroma.2015.08.009

Keywords: University of Orleans, method development, solvation parameter model, column classifications

Performance of the Same Column in Supercritical Fluid Chromatography and in Liquid Chromatography

July 2105

http://dx.doi.org/10.1016/j.chroma.2015.07.056

Keywords: University of Pecs, mass transfer, stochastic model, moment analysis

Sum-of-Ranking-Differences to Rank Stationary Phases Used in Packed Column Supercritical Fluid Chromatography

July 2015

http://dx.doi.org/10.1016/j.chroma.2015.07.071

Keywords: University of Orleans, University of Prague, Hungarian Academy of Sciences, column classification, method development, stationary phases, selectivity

Response Surface Methodology for the Enantioseparation of Dinotefuran and its Chiral Metabolite in Bee Products and Environmental Sample by Supercritical Fluid Chromatography/Tandem Mass Spectrometry

July 2015
Rapid Chiral Separation of Atenolol, Metoprolol, Propranolol, and the Zwitterionic Metoprolol Acid Using Supercritical Fluid Chromatography-Tandem Mass Spectrometry – Application to Wetland Microcosms

July 2015

Development of an Achiral Supercritical Fluid Chromatography Method with Ultraviolet Absorbance and Mass Spectrometry Detection for Impurity Profiling of Drug Candidates. Part 2: Selection of an Orthogonal Set of Stationary Phases

July 2015

Development of an Achiral Supercritical Fluid Chromatography Method with Ultraviolet Absorbance and Mass Spectrometry Detection for Impurity Profiling of Drug Candidates. Part 1: Optimization of Mobile Phase Composition

July 2015

Potential and Limitations of On-Line Comprehensive Reversed Phase Liquid Chromatography × Supercritical Fluid Chromatography for the Separation of Neutral Compounds: An Approach to Separate an Aqueous Extract of Bio-Oil
July 2015

http://dx.doi.org/10.1016/j.chroma.2015.05.005

Keywords: University of Lyons, IFP Energies Nouvelles, Waters SAS, bio oil, biomass, 2d chromatography, ACQUITY BEH, Hpercarb

Use of Isopycnic Plots to Understand the Role of Density in SFC, Which is Now a Misnomer. In This Report We Intentionally Refrained From Using the Expansion Anywhere to Avoid Any Technical Inaccuracy. - I. Effect of Pressure Variation on Retention Factors

June 2015

http://dx.doi:10.1016/j.chroma.2015.05.052

Keywords: Waters, pressure dependence, retention factor

A Closer Study of Peak Distortions in Supercritical Fluid Chromatography as Generated by the Injection

June 2015

http://dx.doi.org/10.1016/j.chroma.2015.04.059

Keywords: Karlstadt University, University of Western Sydney, viscous fingering, solvent strength, modeling, tracer peak, adsorption isotherms

Chromatographic Resolution of Atropisomers for Toxicity and Biotransformation Studies in Pharmaceutical Research

June 2015

http://dx.doi.org/10.1016/j.chroma.2015.04.023

Keywords: Pfizer, chiral chromatography, stability testing, energy barrier calculation, absolute configuration, human plasma

Exploring the Enantioseparation of Amino-Naphthol Analogues by Supercritical Fluid Chromatography

March 2015

http://dx.doi.org/10.1016/j.chroma.2015.01.084

Keywords: University of Szeged, University of Orleans, Betti bases, chiral stationary phases, enantiomer separation, diethanolamine, immobilized polysaccharide, Chiralpak
Search for Improved Fluorinated Stationary Phases for Separation of Fluorine-Containing Pharmaceuticals from their Desfluoro Analogs

February 2015

http://dx.doi.org/10.1016/j.chroma.2014.12.025

Keywords: Merck Research Laboratories, ES Industries Inc., desfluorinated impurities, fluorine containing drugs, pentafluorophenyl, fluorous stationary phases, Hypersil, Poroshell

The Many Faces of Packed Column Supercritical Fluid Chromatography – A Critical Review

February 2015

http://dx.doi.org/10.1016/j.chroma.2014.12.083

Keywords: University of Orleans, elution strength, retention mechanisms, achiral separations, chiral separations

Expanding the Potential of Chiral Chromatography for High-Throughput Screening of Large Compound Libraries by Means of Sub–2 μm Whelk-O 1 Stationary Phase in Supercritical Fluid Conditions

February 2015

http://dx.doi.org/10.1016/j.chroma.2015.01.042

Keywords: University of Rome, Novartis, University of Ferrara, University of Naples, Regis Technologies, chiral separations, enantioselective screening

Possibilities of Retention Modeling and Computer Assisted Method Development in SFC

February 2015

http://dx.doi.org/10.1016/j.chroma.2014.12.077

Keywords: Vrije Universiteit Brussels, University of Geneva, method development, retention modeling, retention prediction

Evaluation of Co-Solvent Fraction, Pressure and Temperature Effects in Analytical and Preparative Supercritical Fluid Chromatography
December 2014

http://dx.doi.org/10.1016/j.chroma.2014.11.045

Keywords: Karlstadt University, chemometrics, design of experiments

Comparison of Liquid Chromatography and Supercritical Fluid Chromatography Coupled to Compact Single Quadrupole Mass Spectrometer for Targeted In Vitro Metabolism Assay

December 2014

http://dx.doi.org/10.1016/j.chroma.2014.10.055

Keywords: University of Geneva, method development, in vitro metabolism, column screening, phytochemical inhibitors,

Evolution of Strategies to Achieve Baseline Separation of Ten Anionic, Water-Soluble Sulfated Estrogens via Achiral Packed Column Supercritical Fluid Chromatography

October 2014

http://dx.doi.org/10.1016/j.chroma.2014.10.021

Keywords: Pfizer, Waters, Virginia Tech, 2-ethylpiridine, sulfated estrogen salts,

Evaluation of the Quantitative Performances of Supercritical Fluid Chromatography: From Method Development to Validation

August 2014

http://dx.doi.org/10.1016/j.chroma.2014.01.046

Keywords: University of Liege, quantitative performance, design space, pharmaceutical quality control, drugs, method validation

A Scaling Rule in Supercritical Fluid Chromatography. I. Theory for Isocratic Systems

August 2014

http://dx.doi.org/doi:10.1016/j.chroma.2014.08.009

Keywords: Waters, method transfer, pressure drop, density variation, density modulation, preparative, scaling, scale-up
Simultaneous Analysis for Water- and Fat-Soluble Vitamins by a Novel Single Chromatography Technique Unifying Supercritical Fluid Chromatography and Liquid Chromatography

August 2014

http://dx.doi.org/10.1016/j.chroma.2014.08.003

Keywords: Osaka University, fat soluble vitamins, water soluble vitamins, food

Evaluation of Stationary Phases Packed with Superficially Porous Particles for the Analysis of Pharmaceutical Compounds Using Supercritical Fluid Chromatography

August 2014

http://dx.doi.org/10.1016/j.chroma.2014.08.003

Keywords: Osaka University, fat soluble vitamins, water soluble vitamins, food

Effect of Particle Size on the Speed and Resolution of Chiral Separations Using Supercritical Fluid Chromatography

July 2014

http://dx.doi.org/10.1016/j.chroma.2014.07.010

Keywords: Merck, Celgene, Chiralcel, pharmaceutical

Enantioselective High Performance Liquid Chromatography and Supercritical Fluid Chromatography Separation of Spiroyclic Terpenoid Flavor Compounds

July 2014

http://dx.doi.org/10.1016/j.chroma.2014.07.001

Keywords: Sanofi, University of Hamburgh, chiral separations, chiral stationary phases, allylic oxidation, flavors, natural products, terpenes, food

Insights into Chiral Recognition Mechanism in Supercritical Fluid Chromatography III. Non-Halogenated Polysaccharide Stationary Phases

July 2014

http://dx.doi.org/10.1016/j.chroma.2014.06.084
Keywords: University of Orleans, Bristol Myers Squibb, chiral recognition, linear solvation energy relationship, polysaccharide, retention relationships.

*Insights into Chiral Recognition Mechanism in Supercritical Fluid Chromatography IV. Chlorinated Polysaccharide Stationary Phases*

*June 2014*

[http://dx.doi.org/10.1016/j.chroma.2014.06.026](http://dx.doi.org/10.1016/j.chroma.2014.06.026)

Keywords: University of Orleans, Bristol Myers Squibb, chemometrics, chlorinated polysaccharides, chiral recognition, linear solvation energy relationship, polysaccharide, retention relationships

*Generic Chiral Method Development in Supercritical Fluid Chromatography and Ultra-Performance Supercritical Fluid Chromatography*

*June 2014*

[http://dx.doi.org/10.1016/j.chroma.2014.06.011](http://dx.doi.org/10.1016/j.chroma.2014.06.011)

Keywords: Vrije Universiteit Brussel, Bristol Myers Squibb, method development, chiral separations, polysaccharide-based stationary phases

*Determination of the Average Volumetric Flow Rate in Supercritical Fluid Chromatography*

*April 2014*

[http://dx.doi.org/10.1016/j.chroma.2014.02.078](http://dx.doi.org/10.1016/j.chroma.2014.02.078)

Keywords: University of Tennesse, average volumetric flow rate, nitrous oxide, hold-up volume,

*Coupling State-of-the-Art Supercritical Fluid Chromatography and Mass Spectrometry: From Hyphenation Interface Optimization to High-Sensitivity Analysis of Pharmaceutical Compounds*

*April 2014*

[http://dx.doi.org/10.1016/j.chroma.2014.03.006](http://dx.doi.org/10.1016/j.chroma.2014.03.006)

Keywords: University of Geneva, interfacing approach, detection sensitivity, pharmaceutical

*The Modeling of Overloaded Elution Band Profiles in Supercritical Fluid Chromatography*

*March 2014*
http://dx.doi.org/10.1016/j.chroma.2014.01.034

Keywords: University of Tennessee, average volumetric flow rate, equilibrium dispersive model

*Combined Size Exclusion Chromatography, Supercritical Fluid Chromatography and Electrospray Ionization Mass Spectrometry for the Analysis of Complex Aliphatic Polyesters*

February 2014

http://dx.doi.org/10.1016/j.chroma.2014.01.018

Keywords: University of Stellenbosch, aliphatic polyesters,

*Comparative Assessment of Achiral Stationary Phases for High Throughput Analysis in Supercritical Fluid Chromatography*

January 2014

http://dx.doi.org/10.1016/j.chroma.2014.01.060

Keywords: Bristol Myers Squibb, residual silanols, ammonium acetate

*Characterization of Five Chemistries and Three Particle Sizes of Stationary Phases Used in Supercritical Fluid Chromatography*

December 2013

http://dx.doi.org/10.1016/j.chroma.2013.10.037

Keywords: University of Orleans, linear solvation energy parameters, BEH, XSelect, HSS

*Accurate On-Line Mass Flow Measurements in Supercritical Fluid Chromatography*

December 2013

http://dx.doi.org/10.1016/j.chroma.2013.10.041

Keywords: University of Tennessee, Waters

*Maximizing Kinetic Performance in Supercritical Fluid Chromatography Using State-of-the-Art Instruments*

November 2013
http://dx.doi.org/10.1016/j.chroma.2013.09.039

Keywords: University of Geneva, Genentech, extra-column band broadening, kinetic performance,

Supercritical Fluid Chromatography in Food Analysis

October 2013

http://dx.doi.org/10.1016/j.chroma.2013.07.022

Keywords: University of Valladolid, lipid, carotenoids, fat soluble vitamins, food

Determination of Adsorption Isotherms in Supercritical Fluid Chromatography

October 2013

http://dx.doi.org/10.1016/j.chroma.2013.09.007

Keywords: Karlstad University, adsorption isotherms, perturbation peak method, retention time method, inverse method

Strong Cation Exchange Chiral Stationary Phase – A Comparative Study in High-Performance Liquid Chromatography and Subcritical Fluid Chromatography

August 2013

http://dx.doi.org/10.1016/j.chroma.2013.08.037

Keywords: University of Vienna, Waters, Institute of Chemical Technology, enantiomer separation, chiral cation exchange, transition buffer salts

In-depth Characterization of Six Cellulose Tris-(3,5-dimethylphenylcarbamate) Chiral Stationary Phases in Supercritical Fluid Chromatography

August 2013

http://dx.doi.org/10.1016/j.chroma.2013.06.040

Keywords: University of Orleans, Bristol Myers Squibb, chemometrics, chiral recognition, quantitative structure retention relationships, solvation parameter model

Chromatographic Resolution of Closely Related Species: Separation of Warfarin and Hydroxylated Isomers
July 2013

http://dx.doi.org/10.1016/j.chroma.2013.07.092

Keywords: Merck, chiral screening, method development,

The Evaluation of 25 Chiral Stationary Phases and the Utilization of Sub-2.0 μm Coated Polysaccharide Chiral Stationary Phases via Supercritical Fluid Chromatography

July 2013

http://dx.doi.org/10.1016/j.chroma.2013.07.046

Keywords: Genentech, chiral screening, polysaccharide chiral stationary phases

Simultaneous and Rapid Analysis of Bile Acids Including Conjugates by Supercritical Fluid Chromatography Coupled to Tandem Mass Spectrometry

July 2013

http://dx.doi.org/10.1016/j.chroma.2013.05.043

Keywords: Waters, Osaka University, metabolic profiling

Strong Cation Exchange-Type Chiral Stationary Phase for Enantioseparation of Chiral Amines in Subcritical Fluid Chromatography

May 2013

http://dx.doi.org/10.1016/j.chroma.2013.03.018

Keywords: University of Vienna, Waters, beta blockers, transient buffer species

Coupling Ultra High-Pressure Liquid Chromatography with Mass Spectrometry: Constraints and Possible Applications

May 2013

http://dx.doi.org/10.1016/j.chroma.2012.09.061

Keywords: University of Geneva, bioanalysis, multi-residue screening
Evaluation and Comparison of Various Separation Techniques for the Analysis of Closely-Related Compounds of Pharmaceutical Interest

March 2013

http://dx.doi.org/10.1016/j.chroma.2013.01.095

Keywords: University of Geneva, Sanofi, diastereoisomers, Z/E isomers

Analysis of Food Polyphenols by Ultra High-Performance Liquid Chromatography Coupled to Mass Spectrometry: An Overview

January 2013

http://dx.doi.org/10.1016/j.chroma.2013.01.012

Keywords: University of Lleida, phenolic, food, feeds, plant-derived foods

Analysis of Basic Compounds by Supercritical Fluid Chromatography: Attempts to Improve Peak Shape and Maintain Mass Spectrometry Compatibility

November 2012

http://dx.doi.org/10.1016/j.chroma.2012.08.091

Keywords: University of Geneva, basic compounds, 2-ethylpiridine ammonium hydroxide, BEH, GreenSep, Viridis, Zymor Pegasus, PrincetonSFC, pharmaceutical

Comparison of Ultra-High Performance Supercritical Fluid Chromatography and Ultra-High Performance Liquid Chromatography

November 2012

http://dx.doi.org/10.1016/j.chroma.2012.10.005

Keywords: University of Geneva, acidic, neutral, basic, backpressure, frictional heating

Journal of Chromatography B

Overcoming Bioanalytical Challenges Associated with the Separation and Quantitation of GSK1278863, a HIF-Prolyl Hydroxylase Inhibitor and its 14 Stereoisomeric Metabolites

Available online December 2015
http://dx.doi.org/10.1016/j.jchromb.2015.11.057

Keywords: GSK, GlaxoSmithKline, anemia, kidney disease

*Study of Ultrahigh Performance Supercritical Fluid Chromatography to Measure Free Fatty Acids Without Fatty Acid Ester Preparation*

*August 2015*

http://dx.doi.org/10.1016/j.jchromb.2015.05.031

Keywords: Virginia Tech, Waters, free fatty acids, evaporative light scattering, fish oil, fatty acid ester derivitization

*Simultaneous Determination of Seven Gestagens in Kidney Fats by UltraPerformance Convergence Chromatography Tandem Mass Spectrometry*

*April 2015*

http://dx.doi.org/10.1016/j.jchromb.2015.02.034

Keywords: Huazhong Agricultural University, Wangeningen University, gestagens, kidney fat,

*Ultrahigh Performance Supercritical Fluid Chromatography of Lipophilic Compounds with Application to Synthetic and Commercial Biodiesel*

*March 2015*

http://dx.doi.org/10.1016/j.jchromb.2014.12.012

Keywords: Virginia Tech, Waters, tobacco seed oil, biodiesel, soybean oil, bound and free glycerols

*Ultra High Resolution SFC - MS as a High Throughput Platform for Metabolic Phenotyping: Application to Metabolic Profiling of Rat and Dog Bile*

*September 2014*

http://dx.doi.org/10.1016/j.jchromb.2014.04.017

Keywords: Waters, Imperial College, King’s College, metabolic profiling, metabonomics, metabolomics, bile acids, bile metabolites, health science

*Profiling of Regioisomeric Triacylglycerols in Edible Oils by Supercritical Fluid Chromatography/Tandem Mass Spectrometry*
September 2014

http://dx.doi.org/10.1016/j.jchromb.2014.01.040

Keywords: Osaka University, Tsukishima Foods, Tokyo University of Marine Science and Technology, regioisomers, triacylglycerol, food

Chiral Separation of a Diketopiperazine Pheromone from Marine Diatoms Using Supercritical Fluid Chromatography

January 2014

http://dx.doi.org/10.1016/j.jchromb.2013.12.040

Keywords: Friedrich Schiller University, Waters, University Gent, chiral separation, diketopiperazine, cyclodextrine, pheromone

Development of a Supercritical Fluid Chromatography-Tandem Mass Spectrometry Method for the Determination of Lacidipine in Beagle Dog Plasma and its Application to a Bioavailability Study

November 2013

http://dx.doi.org/10.1016/j.jchromb.2013.11.029

Keywords: Shenyang Pharmaceutical University, lacidipine, plasma

Journal of Chromatography Separation Techniques

Supercritical Fluid Chromatography with Diode-Array Detection for Emerging Contaminants Determination in Water Samples. Method Validation and Estimation of the Uncertainty

September 2015

doi:10.4172/2157-7064.100029

Keywords: Universidad Colima, Viridis, Bond Elut, wastewater, pesticide, bactericide, pharmaceuticals

Journal of Pharmaceutical and Biomedical Analysis

Chiral Separations of Cathionone and Amphetamine-Derivatives: Comparative Study Between Capillary Electrochromatography, Supercritical Fluid Chromatography and Three Liquid Chromatographic Modes

Available online December 2015
doi:10.1016/j.jpba.2015.12.007

Keywords: Vrije Universiteit Brussel-VUB, Karl-Franzens-Universitat Graz, Tbilisi State University

Comparison of Ultra-High-Performance Supercritical Fluid Chromatography and Ultra-High-Performance Liquid Chromatography for the Separation of Spirostanol Saponins

Available online December 2015


Keywords: Beijing Institute of Radiation Medicine, Waters, Ovation Health Science and Technology Co. Ltd., herbal medicines, isolation, purification

Supercritical Fluid Chromatography for GMP Analysis in Support of Pharmaceutical Development and Manufacturing Activities

January 2016

doi:10.1016/j.jpba.2015.09.014

Keywords: Merck, enantiomers, gmp, impurities, chiral stationary phases, method validation

Development of a Sensitive and Rapid Method for Rifampicin Impurity Analysis Using Supercritical Fluid Chromatography

October 2015

http://dx.doi:10.1016/j.jpba.2015.06.012

Keywords: China Pharmaceutical University, Ministry of Education, Anhui Institute for Food and Drug Control, impurities

Method Development for Impurity Profiling in SFC: the Selection of a Dissimilar Set of Stationary Phases

July 2015

http://dx.doi.org/10.1016/j.jpba.2014.12.043

Keywords: Vrije University, achiral SFC, chemometrics, column selection, orthogonal column selection

Supercritical Fluid Chromatography for the Separation of Isoflavones
March 2015

http://dx.doi.org/10.1016/j.jpba.2015.01.013

Keywords: University of Innsbruck, isoflavones, soy, red glover, kudzu, food

Supercritical Fluid Chromatography in Pharmaceutical Analysis

March 2015

http://dx.doi.org/10.1016/j.jpba.2015.03.007

Keywords: University of Geneva, Charles University, chiral separations, biofluids, impurity profiling, pharmaceuticals

Development and Validation of a Supercritical Fluid Chromatography Method for the Direct Determination of Enantiomeric Purity of Provitamin B5 in Cosmetic Formulations with Mass Spectrometric Detection

October 2014

http://dx.doi.org/10.1016/j.jpba.2014.09.036

Keywords: Orleans University, chiral separation, enantiomeric purity, dexpantenol, cosmetics, chiralpak, adsorbex,

Preclinical Pharmacokinetic Evaluation of a New Formulation of a Bifendate Solid Dispersion Using a Supercritical Fluid Chromatography-Tandem Mass Spectrometry Method

May 2014

http://dx.doi.org/10.1016/j.jpba.2014.05.030

Keywords: Shenyang Pharmaceutical University, bifendate, pharmacokinetics, beagle dog plasma

Robust Method Optimization Strategy—A Useful Tool for Method Transfer: The Case of SFC

January 2014

http://dx.doi.org/10.1016/j.jpba.2013.09.030

Keywords: University of Liege, QBD, design space, method optimization, inter-laboratory method transfer
Evaluation of Supercritical Fluid Chromatography for Testing of PEG Adducts in Pharmaceuticals

January 2014

http://dx.doi.org/10.1016/j.jpba.2013.08.039

Keywords: University of Copenhagen, Waters, cetirizine, indomethacin, polyethylene glycol, excipient

Journal of Separation Science

Simultaneous Determination of 16 Polycyclic Aromatic Hydrocarbons in Reclaimed Water Using Solid-Phase Extraction Followed by Ultra-Performance Convergence Chromatography With Photodiode Array Detection

Available online December 2015

http://dx.doi.org/10.1002/jssc.201500823

Keywords: Beijing University of Chemical Technology, Beijing Agro-Monitoring Station

Chromatographic Resolution of Closely Related Species: Drug Metabolites and Analogs

May 2014

http://dx.doi.org/10.1002/jssc.201400038

Keywords: Merck, method development, high throughput analysis, drugs, metabolites, arbamazepine, methylated xanthine, steroid hormone, nicotine, morphine, GreenSep Ethyl, Luna HILIC, ChiralPak

Development of an Automated Dual-Mode Supercritical Fluid Chromatography and Reversed-Phase Liquid Chromatography Mass-Directed Purification System for Small-Molecule Drug Discovery

February 2014

http://dx.doi.org/10.1002/jssc.201301366

Keywords: Theravance, chiral separation, achiral separation

Efficient Optimization of Ultra-High Performance Supercritical Fluid Chromatographic Separation of Rosa Sericea by Response Surface Methodology
May 2013

http://dx.doi.org/10.1002/jssc.201300289

Keywords: Chengdu Institute of Biology, Shanghai University of Traditional Chinese Medicine, box-behnken design, response surface methodology

Evaluation of Various Chromatographic Approaches for the Retention of Hydrophilic Compounds and MS Compatibility

August 2013

http://dx.doi.org/10.1002/jssc.201300567

Keywords: University of Geneva, polar compounds, hydrophilic analytes

Journal of Steroid Biochemistry and Molecular Biology

Advances in the Analytical Methodologies: Profiling Steroids in Familiar Pathways-Challenging Dogmas

Available online April 2015

http://dx.doi.org/10.1016/j.jsbmb.2015.04.009

Keywords: University of Stellenbosch, 11βHSD, PCOS, LNCaP prostate cancer, H295R adrenal cell, steroid metabolites, steroidogenesis

Journal of Supercritical Fluids

Rapid and Simultaneous Analysis of Sesquiterpene Pyridine Alkaloids from Tripterygium wilfordii Hook. f. Using Supercritical Fluid Chromatography-Diode Array Detector-Tandem Mass Spectrometry

May 2015

http://dx.doi.org/10.1016/j.supflu.2015.05.006

Keywords: East China University, Sesquiterpene pyridine alkaloids, Tripterygium wilfordii Hook. f, component profiling

Supercritical Fluid Extraction and Convergence Chromatographic Determination of Parthenolide in Tanacetum parthenium L.: Experimental Design, Modeling and Optimization

August 2014
Mass Spectrometry, Journal of the Mass Spectrometry Society of Japan

Determination of Niacin and its Metabolites Using Supercritical Fluid Chromatography Coupled to Tandem Mass Spectrometry

August 2014

http://dx.doi.org/10.5702/massspectrometry.A0029

Keywords: Osaka University, water soluble vitamin, vitamin B, hydrophilic metabolites, biofluid

Organic and Biomolecular Chemistry

Review Article: Support of Academic Synthetic Chemistry Using Separation Technologies from the Pharmaceutical industry

February 2014

http://dx.doi.org/10.1039/C3OB42195C

Keywords: Merck, University of Pennsylvania, Harvard University, University of Missouri, Scripps Research Institute, achiral screening, chiral screening, chiral loading and purification, Zorbax, Hypersil, GreenSep, Kromasil, Zymorspher, Lux

Rapid Communications in Mass Spectrometry

Exploring the Complexity of Oil Sands Process-Affected Water by High Efficiency Supercritical Fluid Chromatography/Orbitrap Mass Spectrometry

January 2015

http://dx.doi.org/10.1002/rcm.7156

Keywords: University of Alberta, dissolved organic compounds, water contamination, water treatment, napthenic acid

RSC Advances

Quantitative Analysis of Five Toxic Alkaloids in Aconitum Pendulum by Ultra-Performance Convergence Chromatography (UPC²) Coupled With Mass Spectrometry
Available online November 2015

http://dx.doi.org/10.1039/C5RA21233B

Keywords: Lanzhou Institute of Chemical Physics, tcm, biobotanicals, herbal supplements, medicinal herbs, method development, method validation, food

**Talanta**

Analysis of Anthraquinones in Rhubarb (rheum palmatum and rheum officinale) by Supercritical Fluid Chromatography

Available online August 2015

http://dx.doi.org/10.1016/j.talanta.2015.08.011

Keywords: University of Innsbruck, chrysophanol, physcion, emodin, aloemodin, and rhein

Ultra-Fast Separation of Estrogen Steroids Using Subcritical Fluid Chromatography on Sub-2-Micron Particles

April 2014

http://dx.doi.org/10.1016/j.talanta.2013.12.056

Keywords: Charles University, estrogens

Simultaneous Determination of 17 Disperse Dyes in Textile by Ultra-High Performance Supercritical Fluid Chromatography Combined With Tandem Mass Spectrometry

March 2014

http://dx.doi.org/10.1016/j.talanta.2014.03.055

Keywords: Beijing University of Chemical Technology, dyes, textiles, BEH, BEH 2-ethyl-pyridine, HSS C18 SB and CSH fluorophenyl

**Tetrahedron**

Extended Structural Modulation of Bio-Inspired Chiral Lipidic Alkynylcarbinols as Antitumor Pharmacophores

October 2015

http://dx.doi.org/10.1016/j.tet.2015.08.003
Keywords: LCC (Laboratoire de Chimie de Coordination), Université de Toulouse, Université Paul Sabatier, Taras Shevchenko National University of Kyiv, alkyne, antitumor agent, asymmetric synthesis, cytotoxicity

**Tetrahedron Letters**

*Synthesis of Dopamine D2/D3 Receptor Agonist (+)-PHNO Via Super Critical Fluid Chromatography: Preliminary PET Imaging Study With[3-^{11}C ]-(+) PHNO*

*December 2013*

[http://dx.doi.org/10.1016/j.tetlet.2013.11.113](http://dx.doi.org/10.1016/j.tetlet.2013.11.113)

Keywords: Massachusetts General Hospital, Harvard Medical School, Waters, PHNO, Carbon-11, dopamine D3 agonist, [^{11}C ]methyl iodide, brown fat

**TrAC Trends in Analytical Chemistry**

*Advances in Sample Preparation and Analytical Techniques for Lipidomics Study of Clinical Samples*

*March 2015*

[http://dx.doi.org/10.1016/j.trac.2014.10.010](http://dx.doi.org/10.1016/j.trac.2014.10.010)

Keywords: Bioprocessing Technology Institute, Agency for Science Technology and Research (A*STAR), lipidomics, lipid extraction, lipids

*The Use of Columns Packed with Sub-2-μm Particles in Supercritical Fluid Chromatography*

*October 2014*

[http://dx.doi.org/10.1016/j.trac.2014.06.023](http://dx.doi.org/10.1016/j.trac.2014.06.023)

Keywords: University of Geneva, isopycnic plot, kinetic plot, orthogonal selectivity