



**Special Issue on Supercritical Fluids: Supercritical Fluid
Extraction (SFE) and Supercritical Fluid Chromatography
(SFC)**

Call for Papers

International Journal of Analytical Mass Spectrometry and Chromatography launches new Special Issue that should cover advanced analytical methods, such as Supercritical fluid chromatography (SFC) in combination with Mass Spectrometry, and perspective Supercritical Fluid technologies, such as Supercritical fluid extraction (SFE), and invites authors to submit their papers to this Issue.

Supercritical fluid extraction based on CO₂ with modifiers or CO₂ without modifiers is fast growing laboratory and industrial techniques, especially in Food, Pharmaceutical, Cosmetics industries, Recovery of Catalysts and Recovery of Metal Ions from the Radioactive Waste Materials. It is extraction with fluids without or nearly without of organic solvents. The processes are profitable for environment because of little contamination with organic solvents. The environmental pollution caused by solvents and their degradation products is a major ecological and health problem at the moment, since residues from those compounds can be present in natural waters, vegetables and fruits.

Supercritical fluid chromatography shares features with both HPLC and GC, and occupies a place somewhere between them. The mobile phases in SFC are substances in the supercritical state, and organic liquids may or may not be used as modifiers. There are two classes of SFC instrumentation: capillary-column SFC (CCSFC) predominantly utilizes the capillary columns produced for GC and, in most cases, uses CO₂ without modifiers; packed-column SFC (PCSFC) utilizes the packed columns produced for HPLC and, more recently, those produced for SFC. Zhao and Olesik have described phase diagram studies of methanol - CHF₃ and methanol - H₂O - CHF₃ mixtures. There have been some attempts to use halocarbons as mobile phases for SFC, but their use is very limited because halocarbons damage the environment. N₂O, NH₃, F₆S and n-butane have also been used for SFC.

SFC has a high value for resolution of the enantiomers in Pharmaceutical industry. SFC in combination with Mass Spectrometry is a powerful tool in elucidation of



molecular structures. Therefore, it is very important and necessary to develop methods for extraction and analysis of target substances without of excessive use of organic solvents as pollutants.

For more information, you can visit the following website:
<http://www.scirp.org/journal/ijamsc/>

The Special Issue focuses on theoretical and practical aspects of SFE and SFC, and on resolution of enantiomers by SFC. The technical and practical aspects as development of new columns for use in SFC, new instrumental approach and theoretical background for use of new mobile phases are welcome.

Theoretical and practical background for use of Supercritical Fluids, Theoretical and practical aspects and of use of SFE in industry, SFC and SFC - MS solutions of analytical problems, Development and use of columns for SFC, Resolution of Enantiomers and Separations of Isomers by SFC.

Please kindly specify the “**Special Issue**” under your manuscript title. The research field “**Supercritical Fluids: Supercritical Fluid Extraction (SFE) and Supercritical Fluid Chromatography (SFC)**” should be selected during your submission.

Special Issue Timetable:

Submission Deadline	May 22th, 2017
Publication Date	June 2017

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For further questions or inquiries, please contact Editorial Assistant at
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