

## Supercritical Fluid Chromatography In The Pharmaceutical Industry

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While supercritical fluid chromatography (SFC) and the use of carbon dioxide based mobile phases was first used over fifty years ago, it is the last twenty years that has seen a resurgence in this area. Advances in theory as well as instrumentation has raised the technique to where it can be an alternative to many liquid based separations. Over the past ten years SFC has moved beyond the pharmaceutical industry and is being used for energy and petrochemicals, environmental, food, natural products and essential oil analysis. This talk will provide a historical overview of SFC and present current state of the art for SFC analysis and purification. Multiple real life examples will help illustrate the advantages of SFC over HPLC and other separation techniques.

### Short Biography

**Larry Miller** is a Principal Scientist in the Discovery Attribute Sciences group at Amgen in Cambridge, MA responsible for analysis and purification for pre-clinical small molecule therapeutic programs. He graduated with a BS degree from the University of Illinois in Urbana-Champaign and a MS from Roosevelt University. He has over 30 years of experience performing small molecule achiral and chiral purifications at the mg to multi-kg scale/ During his career he spent 20 years at Searle/Pharmacia and has spent the last 13 years at Amgen At Amgen he is responsible for discovery and early development purification support utilizing preparative SFC and HPLC. Larry has over 30 peer reviewed publications and over 35 presentations at scientific meetings and serves as co-instructor for SFC short courses in the US and Europe. In addition Larry is the past president of the Green Chemistry Group which organizes the annual SFC conference.

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