

Pressurized Fluid Extraction

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1. Summary

Pressurized fluid extraction (PFE) is one of several sample preparation methods that can be used to extract targeted analytes from a sample matrix into a solvent, to permit subsequent analysis. With PFE, samples are extracted with solvent in a pressurized cell reminiscent of a liquid chromatographic column. Samples are placed in the cell body along with an inert granular matrix. Solvent is pumped into the cell until it is filled, and then allowed to equilibrate under static conditions. After a predetermined time, the extract is pumped out of the cell and is collected for analysis. Environmental parameters can be controlled, and multiple re-extractions of a sample can be programmed. This presentation will provide an introduction to the practice of pressurized fluid extractions, and will demonstrate the technique for a typical sample.¹

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