

MODERN EXTRACTION METHODS FOR PREPARATION OF BIOACTIVE PLANT EXTRACTS

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ABSTRACT

Extraction is the first crucial step in preparation of plant formulations. Modern methods of extraction are effective in advancing the development of traditional herbal remedies. The development of modern sample-preparation techniques with significant advantages over conventional methods for the extraction and analysis of medicinal plants is likely to play an important role in the overall effort of ensuring availability of high-quality herbal products to consumers worldwide. Sample preparation is of utmost importance to the development of analytical methods for the analysis of constituents present in the botanicals and herbal preparations. In this article principle behind operation of various extraction methods, factors influencing method performance, research progress, strength and weakness of different extraction approaches are discussed. Emphasis is put on the methods which are solvent and energy saving, and suitable for thermolabile phytocompounds.

KEYWORDS: Efficacy, Extraction Efficiency, Microwave Assisted Extraction (MAE), Supercritical Fluid Extraction (SFE), Ultrasonication Assisted Extraction (UAE).