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## **LC/MS: A Hyphenated Chromatographic Technique**

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Pharmaceutical chemistry is the core branch of pharmacy education and research. It can be categorized as synthesis of new drug molecule, its analysis and pharmacological studies. High performance liquid chromatography is the highly advantageous technique to analyze the sample. Mass spectrometry is method used to quantify the sample. High performance liquid chromatography coupled with mass spectrometry (LC/MS) is a key enabling technology for the detection and characterization of organic molecules, providing the analytical chemist with one of the most powerful analytical tools of modern times. With advancements in ionization methods and instrumentation, liquid chromatography/mass spectrometry (LC/MS) has become a powerful technology for the characterization of macromolecule. This article will illustrate the role of LC/MS analysis in drug discovery process. The LC/MS technique extend its applications to newer areas of pharmaceutical research, including metabolomics, proteomics and biomarker discovery. It is expected that LC/MS technique will continue to play important roles in every aspect of drug discovery and development. LC/MS is typically applied to analysis of multiple component mixtures.