

---

## Preface

No longer considered an esoteric technique, mass spectrometry has entered the clinical laboratory where it is being used for a wide range of applications. Methods developed using this technique offer a level of specificity and sensitivity unrealized by spectrophotometric- and immunoassay-based methods. In fact, the technique is considered essential coupled to either gas chromatography or liquid chromatography for the measurement of many clinical analytes.

This volume, *Clinical Applications of Mass Spectrometry*, is intended to provide detailed step-by-step procedures for the analysis of number of analytes of clinical importance. Each chapter provides the brief introduction of the analyte followed by a detailed analytical protocol. The procedures are easy to follow and should be easily reproducible in the laboratory already using mass spectrometry and wanting to introduce new analyses as well as those laboratories considering adding the technology. We do not offer a detailed overview of mass spectrometry since there are many excellent volumes and tutorials on MS theory and principles, but we have included a chapter that discusses some of the basic laboratory practices to remember when introducing the technique into routine use. The analytes for which mass spectrometry methods are described include drugs, hormones, and metabolic compounds spanning the disciplines of toxicology, therapeutic drug monitoring, endocrinology, and pediatric metabolism. Demonstrating the versatility of the technique, we have been able to provide multiple applications for some analytes so that the reader has his/her choice of an LC-MS- or a GC-MS-based method.

We thank all of our colleagues who contributed the methods. We realize that the development of these represent thousands of hours of work. And we hope that those who use this book find it useful.

*Uttam Garg*  
*Catherine A. Hammett-Stabler*

Clinical Applications of Mass Spectrometry  
Methods and Protocols

GARG, U.; Hammett-Stabler, C.A. (Eds.)

2010, XVI, 540 p. 132 illus., Hardcover

ISBN: 978-1-60761-458-6

A product of Humana Press