This book is a combined review, manual and reference for the successful analysis of proteins using the classical approach of 2-D gel electrophoresis, mass spectrometry and related sequence database inquiries.

The first section, written in a textbook style, introduces the entire technology, while the second section represents a comprehensive laboratory manual spanning the full range of methods from sample preparation to protein identification. Alternative methods and procedures are only suggested for those cases where the “default” procedure would fail to deliver adequate results. The third section is a unique troubleshooting guide, designed to answer many of the frequently asked questions regarding proteome analysis. The final section contains a thorough reference list to guide interested readers towards further detail.

Intended for all those wishing to go beyond the theoretical aspects of proteome analysis, this book is targeted at research groups within academia and industry, course instructors, research assistants and graduate students.