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Nota di contenuto	Part I. Introduction -- Chapter 1. Gas Chromatography and Mass Spectrometry: The Technique -- Chapter 2. Statistical and Mathematical Models in Food Authentication -- Part II. Authentication of Food -- Chapter 3. Cereals, Pseudocereals, Flour and Bakery Products -- Chapter 4. Edible Oils and Fats -- Chapter 5. Milk and Dairy Products -- Chapter 6. Meat, Eggs, Fish and Seafood -- Chapter 7. Honey and Bee Products -- Chapter 8. Fruits, Vegetables, Nuts and Fungi -- Chapter 9 -- Herbs and Spices -- Part III. Authentication of Beverages -- Chapter 10. Fruit Juices -- Chapter 11. Coffee and Tea -- Chapter 12. Wine, Beer and Alcoholic Beverages -- Part IV. Outlook -- Chapter 13. Concluding Remarks and Future Perspectives. .
Sommario/riassunto	This edited book provides an overview of existing and emerging gas chromatography/mass spectrometry (GC/MS) based methods for the authentication and fraud detection in all major food groups and beverages. Split in four parts, the book opens with a comprehensive introduction into the GC/MS technique and a summary of relevant

statistical and mathematical models for data analysis. The main parts focus on the authentication of the main food groups (cereals, dairy products, fruit, meat, etc.) and beverages (e.g., coffee, tea, wine and beer). The chapters in these sections follow a distinct structure describing the nutritional value of the product, common fraud practices, economic implications and relevant biomarkers for the authentication process, such as volatile compounds, fatty acids, amino acids, isotope ratios etc. The final chapter provides an outlook on where the methodologies and the applications may be heading for. Food fraud is serious problem that affects foodindustries of all kinds, which is why food authentication plays an increasingly important role. This book aims to serve as a knowledge base for all researchers in academia, regulatory laboratories and industry employing GC/MS for food analysis. Due to its comprehensive introduction and consistent structure, it can also serve as an excellent resource for students in food science, food technology, food chemistry and nutrition.

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