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AND WINE CHEMISTRY

4 Grape Aroma Compounds: Terpenes, C(13)-Norisoprenoids, Benzene Compounds, and 3-Alkyl-2-Methoxypyrazines4.1 Introduction; 4.2 The SPE-GC/MS of Terpenes, Norisoprenoids, and Benzenoids; 4.2.1 Preparation of Grape Sample; 4.2.2 Analysis of Free Compounds; 4.2.3 Analysis of Glycoside Compounds; 4.2.4 Analysis of Compounds Formed by Acid Hydrolysis; 4.2.5 GC-MS; 4.3 The SPME-GC/MS of Methoxypyrazines in Juice and Wine; References; 5 Volatile and Aroma Compounds in Wines; 5.1 Higher Alcohols and Esters Formed from Yeasts; 5.1.1 Introduction

5.1.2 SPME-GC/MS Analysis of Higher Alcohols and Esters5.2 Volatile Sulfur Compounds in Wines; 5.2.1 Introduction; 5.2.2 The HS-SPME-GC/MS Analysis of Volatile Sulfur Compounds; 5.2.3 HS-SPME-GC/MS Analysis of 3-MH and 3-MHA; 5.2.4 Analysis of Wine Mercaptans by Synthesis of Pentafluorobenzyl Derivatives; 5.3 Carbonyl Compounds in Wines and Distillates; 5.3.1 Introduction; 5.3.2 The GC/MS Analysis of Wine Carbonyl Compounds by Synthesis of PFBOA Derivatives; 5.3.3 HS-SPME-GC/MS of PFBOA Derivatives; 5.4 Ethyl and Vinyl Phenols in Wines; 5.4.1 Introduction; 5.4.2 Analysis of Ethylphenols

8 Compounds Responsible for Wine Defects

Sommario/riassunto

A concise, up-to-date overview of the applications of mass spectrometry To be able to estimate the potentiality of grapes and how it may be transferred into wine is key to grasping enological chemistry. Nowadays, mass spectrometry is a crucial aspect in ensuring the production, the quality, and the safety of grape, wine, and grape derivative products. Mass Spectrometry in Grape and Wine Chemistry examines in depth the relationship between the high structural identification power of mass spectrometry techniques and the chemistry of grapes and wine. The text is divided into two parts.