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by Varying the Activity Coefficient; 2.4 Headspace Linearity
2.5 Duplicate Analyses 2.6 Multiple Headspace Extraction (MHE); 2.6.1 Principles of MHE; 2.6.2 Theoretical Background of MHE; 2.6.3 Simplified MHE Calculation; References; 3 The Technique of HS-GC; 3.1 Sample Vials; 3.1.1 Vial Types; 3.1.2 Selection of the Vial Volume; 3.1.3 Vial Cleaning; 3.1.4 Wall Adsorption Effects; 3.2 Caps; 3.2.1 Pressure on Caps; 3.2.2 Safety Closures; 3.3 Septa; 3.3.1 Septa Types; 3.3.2 Septum Blank; 3.3.3 Should a Septum Be Pierced Twice?; 3.3.3.1 Closed-Vial versus Open-Vial Sample Introduction Technique; 3.4 Thermostatting; 3.4.1 Influence of Temperature
3.4.2 Working Modes 3.5 The Fundamental Principles of Headspace Sampling Systems; 3.5.1 Systems Using Gas Syringes; 3.5.2 Solid Phase Microextraction (SPME); 3.5.2.1 Comparison of the Sensitivities in HS-SPME and Direct Static HS-GC; 3.5.3 Balanced Pressure Sampling Systems; 3.5.4 Pressure/Loop Systems; 3.5.5 Conditions for Pressurization Systems; 3.5.6 Volume of the Headspace Gas Sample; 3.5.6.1 Sample Volume with Gas Syringes; 3.5.6.2 Sample Volume with Loop Systems; 3.5.6.3 Sample Volume with the Balanced Pressure System; 3.6 Use of Open-Tubular (Capillary) Columns
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3.7.1.4 Comparison of the Various Techniques of Cryogenic Trapping

Sommario/riassunto

The only reference to provide both current and thorough coverage of this important analytical technique Static headspace-gas chromatography (HS-GC) is an indispensable technique for analyzing volatile organic compounds, enabling the analyst to assay a variety of sample matrices while avoiding the costly and time-consuming preparation involved with traditional GC. Static Headspace-Gas Chromatography: Theory and Practice has long been the only reference to provide in-depth coverage of this method of analysis. The Second Edition has been thoroughly updated to reflect the most recent
