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Nota di contenuto	Organic Indoor Air Pollutants; Foreword; Contents; Preface to the Second Edition; List of Contributors; List of Symbols and Abbreviations; Part One: Measuring Organic Indoor Pollutants; 1: Application of Solid Sorbents for the Sampling of Volatile Organic Compounds in Indoor Air; 1.1 Introduction; 1.2 Solid Sorbents-A Brief Overview; 1.3 Active or Passive Sampling; 1.4 Thermal Desorption or Solvent Extraction; 1.5 Sampler Design; 1.6 Breakthrough Volumes; 1.7 Safe Sampling Volume; 1.8 Artifacts and Interferences; 1.8.1 Water Affinity-A Chromatographic Problem 1.8.2 Sorbent Degradation Products and Sorbent Background1.8.3 Target Compound Degradation and Artifact Formation; 1.9 Conclusions; 2: Sampling and Analysis of SVOCs and POMs in Indoor Air; 2.1 Introduction; 2.2 Definitions and Properties of SVOCs and POMs; 2.2.1 Gas/Particle Partitioning in Indoor Air; 2.2.2 Surface Adsorption; 2.2.3 Health Related Properties; 2.3 Compounds and Matrices in the Indoor Environment; 2.4 Sampling, Transport and Storage of SVOC/POM Samples; 2.4.1 Preparation of Sampling and Analysis Equipment; 2.4.1.1 Background Contamination and Loss of

Target Compounds

2.4.1.2 Cleaning of Filters; 2.4.1.3 Cleaning of Sorbents; 2.4.1.4 Cleaning of Glassware and Other Equipment; 2.4.2 Sampling SVOCs/POMs in Air; 2.4.2.1 Filter/Sorbent Sampling; 2.4.2.2 Determination of the Gas/Particle Partitioning: Denuder Sampling; 2.4.2.3 Artifact Formation Caused by Reactive Gases in Indoor Air; 2.4.2.4 Air Sampling Pumps; 2.4.3 SVOCs/POMs in Surface Dust; 2.4.3.1 Filter Sampling with Vacuum Cleaner; 2.4.3.2 Specially Designed Dust Sampler; 2.4.4 SVOCs/POMs in Building Materials and Consumer Products; 2.4.4.1 Indoor Material Samples Containing SVOCs/POMs; 2.4.4.2 Testing Emission of SVOCs from Indoor Materials in Chambers; 2.5 Preparation of SVOC/POM Samples for Analysis; 2.5.1 Extraction of SVOCs/POMs from Samples; 2.5.1.1 Cleaning of Extraction Equipment; 2.5.2 Concentrating Extracts of SVOC/POM Samples; 2.6 Analysis of SVOCs/POMs; 2.6.1 Gas Chromatography (GC); 2.6.1.1 On-Column Injection (OC); 2.6.1.2 Large Volume Injection (LVI); 2.6.1.3 Thermal Desorption (TD); 2.6.1.4 'Cold Spots' and Other Adsorption Problems; 2.6.1.5 Flame Ionization Detection (FID); 2.6.1.6 Mass Spectrometric Detection (MS); 2.6.2 High Performance Liquid Chromatography (HPLC); 2.6.2.1 HPLC with Fluorescence Detection (HPLC-FD); 2.6.2.2 HPLC with Mass Spectrometric Detection (LC-MS); 2.6.3 Analysis Sequences; 2.7 Quality Assurance and Control; 2.7.1 Method Validation; 2.7.1.1 Calibration Curves; 2.7.1.2 Limit of Detection (LD) and Limit of Quantification (LQ); 2.7.2 Controls and Control Charts; 2.7.3 Documentation; References; 3: Application of Diffusive Samplers; 3.1 Introduction; 3.2 Principles of Diffusive Sampling; 3.3 Selection of Appropriate Methods; 3.4 Performance of Diffusive Samplers for the Measurement of VOCs in Indoor Air

Sommario/riassunto

With the quality of indoor air ranking highly in our lives, this second, completely, revised edition now includes 12 completely new chapters addressing both chemical and analytical aspects of organic pollutants. Sources of indoor air pollutants, measurement and detection as well as evaluation are covered filling the gap in the literature caused by this topical subject. This book is divided into four clearly defined parts: measuring organic indoor pollutants, investigation concepts and quality guidelines, field studies, and emission studies. The authors cover physico-chemical fundamentals