Record Nr. UNINA9910830125603321 Determination of trace elements [[electronic resource] /] / edited by **Titolo** Zeev B. Alfassi Pubbl/distr/stampa Rehovot, Israel, : Balaban Publishers Weinheim;; New York,: VCH, c1994 **ISBN** 1-281-75877-9 9786611758776 3-527-61577-6 3-527-61576-8 Descrizione fisica 1 online resource (623 p.) Altri autori (Persone) AlfassiZeev B 543 Disciplina Soggetti Trace elements - Analysis Trace elements - Speciation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Errata sheet laid in. Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Determination of Trace Elements; Contents; 1. Systematic errors in trace analysis; 1.1 Introduction; 1.1.1 General aspects of extreme trace analysis; 1.1.2 Direct instrumental determination methods; 1.1.3 Multistage procedures; 1.1.4 Further general important statements; 1.2 Systematic errors and their avoidance; 1.2.1 Volatilization; 1.2.2 Adsorption; 1.2.3 Blanks from vessels, vessel materials and working tools; 1.2.4 Blanks from the reagents; 1.2.5 Blanks from airborne dust; 1.2.6 Contamination by sample handling; 1.2.7 Problems due to changes of the valency state 1.3 Systematic errors during the analytical procedure 1.3.1 Sampling, sample storage and Pretreatment; 1.3.2 Decomposition; 1.3.3 Separation; 1.4 Basic rules for the recognition and elimination of systematic errors; 1.5 Conclusion; 2. Limits of detection and accuracy in trace elements analysis; 2.1 Introduction; 2.2 Errors in analytical results; 2.3 Accuracy; 2.4 Measuring trace concentrations; 2.5 The problem of detection; 2.5.1 Random error of blank responses; 2.5.2

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Sommario/riassunto

The best way to determine trace elements! This easy-to-use handbook guides the reader through the maze of all modern analytical operations. Each method is described by an expert in the field. The book highlights the advantages and disadvantages of individual techniques and enables pharmacologists, environmentalists, material scientists, and food industry to select a judicious procedure for their trace elementanalysis.