Record Nr. UNINA9910829960103321 Autore Alfassi Zeev B Titolo Statistical treatment of analytical data [[electronic resource] /] / Zeev B. Alfassi, Zvi Boger, Yigal Ronen Oxford, : Blackwell Science, 2005 Pubbl/distr/stampa **ISBN** 9786610213399 1-280-21339-6 1-4443-0535-2 1-4051-4814-4 Descrizione fisica 1 online resource (272 p.) Altri autori (Persone) BogerZvi RonenYigal <1940-> Disciplina 543.0015195 543.0727 Soggetti Chemometrics Chemistry - Statistical methods Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Statistical Treatment of Analytical Data: Contents: Preface: 1 Introduction: 1.1 Statistics and quality assurance, control and assessment; 1.2 References; 2 Statistical measures of experimental data; 2.1 Mean and standard deviation; 2.2 Graphical distributions of the data - bar charts or histograms; 2.3 Propagation of errors (uncertainties); 2.4 References; 3 Distribution functions; 3.1 Confidence limit of the mean; 3.2 Measurements and distribution functions; 3.3 Mathematical presentation of distribution and: 3.4 Continuous distribution functions; 3.5 Discrete distribution functions 3.6 References 4 Confidence limits of the mean; 4.1 Confidence limits; 4.2 The Central Limit Theorem - the distribution of means; 4.3 Confidence limit of the mean; 4.4 Confidence limits of the mean of small samples; 4.5 Choosing the sample size; 5 Significance test; 5.1 Introduction; 5.2 Comparison of an experimental mean with an expected; 5.3 Comparison of two samples; 5.4 Paired t-test; 5.5

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## Sommario/riassunto

Statistical techniques have assumed an integral role in both the interpretation and quality assessment of analytical results. In this book the range of statistical methods available for such tasks are described in detail, with the advantages and disadvantages of each technique clarified by use of examples. With a focus on the essential practical application of these techniques the book also includes sufficient theory to facilitate understanding of the statistical principles involved. Statistical Treatment of Analytical Data is written for professional analytical chemists in