



# Data Fitting in the Chemical Sciences: By the Method of Least Squares

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## DESCRIPTION

Data Fitting in the Chemical Sciences Peter Gans, School of Chemistry, The University of Leeds, Leeds, UK Data fitting is a technique of central importance in modern experimental science. It is the means by which data is tested against a model of the experimental system, be it a theoretical or empirical model. In this book an all-round approach is adopted in which the first stage of data-fitting is seen as data collection, the second is numerical processing and the third a critical evaluation of the 'goodness' of fit in both statistical and common sense terms. Each stage is considered in detail: the sources and nature of experimental errors; the theory of least-squares fitting; probability theory; hypothesis testing, and the application of scientific criteria. The theory is complemented by three chapters on a wide range of applications. The emphasis of this book is on methodology: why certain procedures are preferred rather than how any one procedure is implemented. The author aims to assist people in extracting from their data its full information content, i.e. to use their data, not abuse it.

## ABOUT THE AUTHOR

Peter Gans is the author of Data Fitting in the Chemical Sciences: By the Method of Least Squares, published by Wiley.