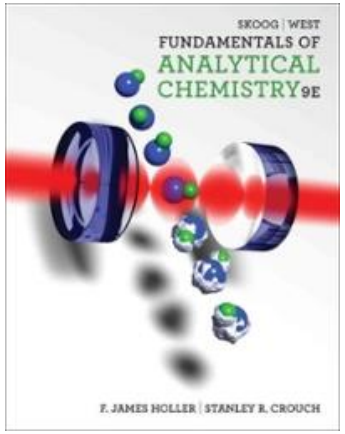
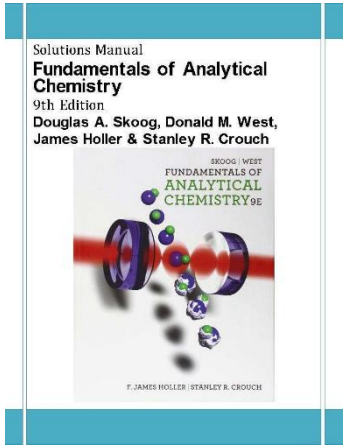
STATISTICS IN CHEMISTRY

1.



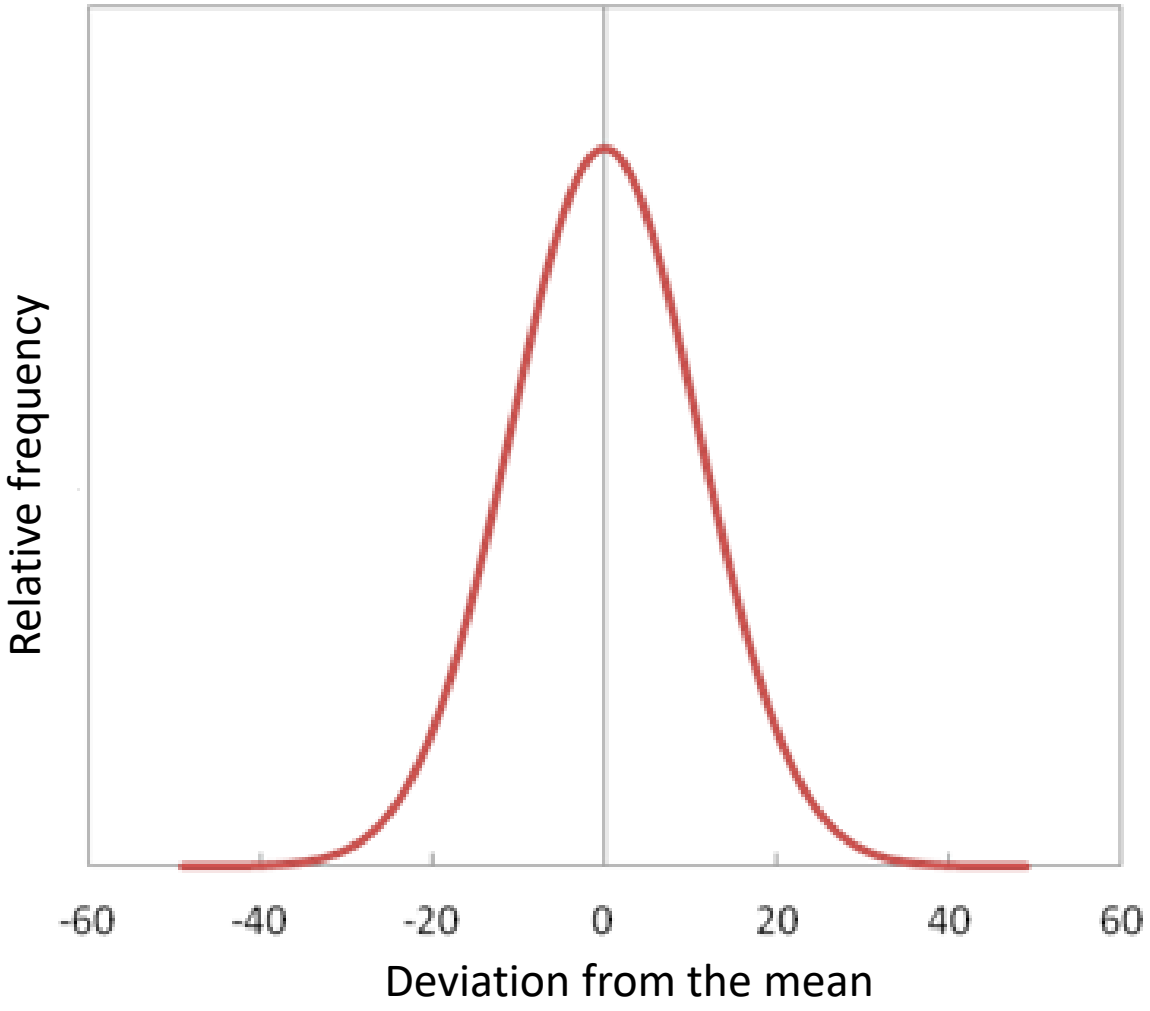
2.



1. Skoog DA, West DM, Holler FJ, Crouch SR. Fundamentals of Analytical Chemistry. Nelson Education; 2013.
2. Skoog DA, West DM, Holler FJ, Crouch SR. Solutions Manual of Fundamentals of Analytical Chemistry. Nelson Education; 2013.

Random Errors in Analysis, Sources of Random Errors

Random errors are those whose source is uncertain and uncontrollable, and whose effect on the results cannot be eliminated. Such errors emerge as the sum of the random effects of many variables on experiments that can never be eliminated. The effect of a large number of uncertain effects on the distribution of the test results can be demonstrated by the Gaussian curve or the normal error curve. The Gaussian curve is the curve plotted by plotting the relative frequency of the error versus deviation from the mean.



Random errors affect the accuracy of the analysis results. If there is no systematic error in the analysis, it is seen that as the number of analyzes increases, the results approach each other, that is, the accuracy increases.

When the Gaussian curve is examined, it is seen that the frequency of random small errors is quite high and the frequency of large random errors is quite low.