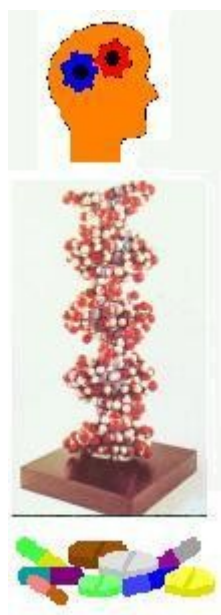


§1.1.1 Generalization of Analytical Chemistry

I Definition Analytical Chemistry is a scientific discipline that obtains the information on the composition and structure of the matter, analytical methods and relative theories. It's the informational science of chemistry, and the main aim is to low the uncertainty of the system.



II Characteristics

1. Emphasizing the concept of quantity For example, the measurement data isn't to rejected or retained at random; the accuracy and the deviation of data are related to the analytical methods.

2. Analyzing the sample is a process to obtain the information and low the uncertainty of the systle.

3. Doing necessary practical experiment. Analytical Chemistry is a scientific discipline to highlight the practical ability, cultivate the skill on experimental operation and improve the ability to analyze the practical problems.

4. Dispersive theory systems .

Analytical Chemistry relates to chemistry, biology, electrology, photics and computers, and embodies the ability and quality.

III Task The three main tasks are as follows: 1. Analyzing the composition of the matter (including the qualitative analysis and quantitative analysis) .

2. Identifying the molecular structure of the compound and confirming the molecular structure of the compound and the active structure of the bio-active compounds.

3. Studying the analytical methods, instruments and the relative theories.

IV Application **The role in the development of chemical science:**

Molecular science, Genetic code, Chemometrics and so on.

The role in the Modern industry: continuous determination in the process of autocontrol (sensors).

The role in the research work: determining the structures of new matter, studying the relationship between structure and property.

The role in the Society: quality control on the drug, food, beverage, cosmetics, etc.

The role in the Environment: in-time continuous determination and issuing on the environmental quality.

The role in the Case: trace analysis.

The role in the Archaeology: determination of lossless ages .