

AIMS OF THE “VIRTUAL LAB”

Aims to be reached by students when using the soft “Virtual Lab”:

1. The study of the pH variation of an acid solution whose concentration, known at first, changes by dilution. (See the study in the Excel file attached.)
2. Comparisons between the different pH of acid solutions with different powers, at different dilutions.
3. The calculation of K_a or K_b using the concentrations of the solutions from the data provided by the use of Virtual Lab.
4. Comparisons between the powers of acids and bases, using K_a and K_b .

The advantages of the use of this programme:

1. There is no necessity of difficult calculations that involve Mathematics.
2. Operating ‘Virtual Lab’ is relatively simple.
3. The programme does not only offer the possibility of teamwork, but also individual work, depending on the technological development.
4. Saving the time in which experiments are performed. In two lab hours, students not only have the opportunity to do the experiment, but also interpret the results using Excel.

Notice!

In order to use this programme, a minimum knowledge about soft operation is required. The exclusive employment of “Virtual Lab” is not recommended, especially by beginners in terms of Chemistry. Students are experienced regarding experimental activities in labs, so it is advisable to use the programme in correlation with laboratory experimental activities.