

User guide

Chemix Visualize In Mozilla Science Lab

Group members

Anoja Rasalingam (2013/CSC/017)

Bamini Thavarajah(2013/SP/104)

Janaki Pararajasingham(2013/SP/111)

Ambujaa Satchithanathan(2013/SP/122)

Table of contents

1. Scope and the purpose of the project
2. Propose overview of the project
3. How you can use
 - 3.1. Introduction about the structure of the interface
 - 3.2. How to work with an experimental area

1. Scope and Purpose of the project

We are developing a project for chemical experiment. It is made to present the information regarding the change of volume and the color change during the reaction between acid and base for particular indicator, and to present the change of pH value of indicators with the reaction.

In order to perform this we can use html, JavaScript, svg techniques.

We are contributing this project for [Mozilla Science Lab/chemix](#)

2. Process Overview project

Here, there are two processes. The first one is when a acid is titrated with base equivalence point is reached according to the ratio between acid and base.

The second one is the colour change of indicator in both acid and base. The PH of indicator changes in relevant to the medium (In base it has high PH value where in acid it has low PH value)

3 .How you can use

3.1 Introduction the Structure of Interface

This application consists Experimental area and toolbar. Chemical experiments are done in the experimental area. This application consists two types of experiment. The experimental pages can be changed by using the toolbar. The conclusions regarding the explanations are in the related pages. In case of help, there is a help me icon.

3.2 How to work with an experimental area

In each application, different chemicals can be selected by using the triangular icon. The selected chemicals can be filled into the flask by clicking the button on the top. Volume can be reduced by using the rectangular button on the flask with the help of the volume scalar the volume fitted within the flask can be identified.

In qualitative ananlysis page, to titrate acid with a base at least 10ml of base is required. Indicator shows different colour in acid and base

In complex chemical page, the experiment should be done after filling the given solution above 20 ml. The colour can be identified when an acid/base is mixed and obtained.

In pH scalar application, its goal is to present the change which occurs when a given solution is filled within the flask and diluted with water. Here, change of pH can be identified by using the pH scalar. The change of the pH value of acid/base solution with water can be also identified.

4. Screen Shots and explanation

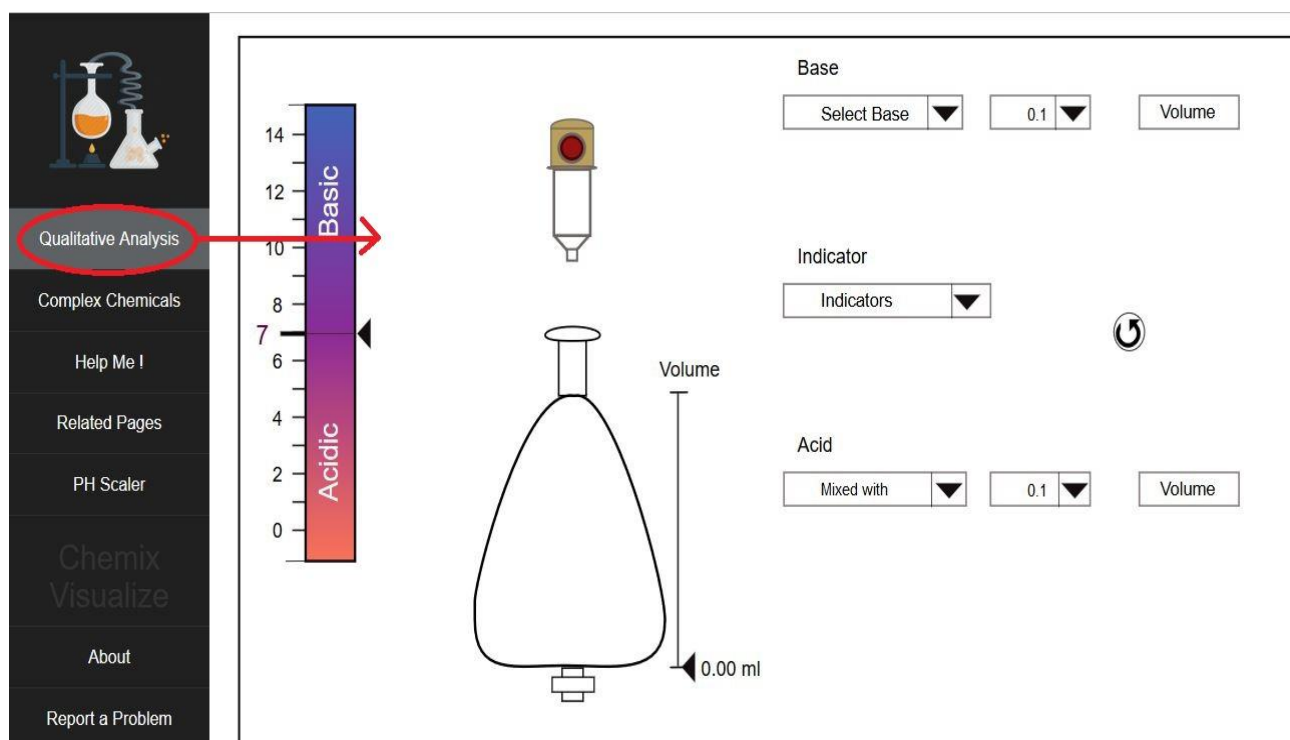


Figure 1. Qualitative analysis interface

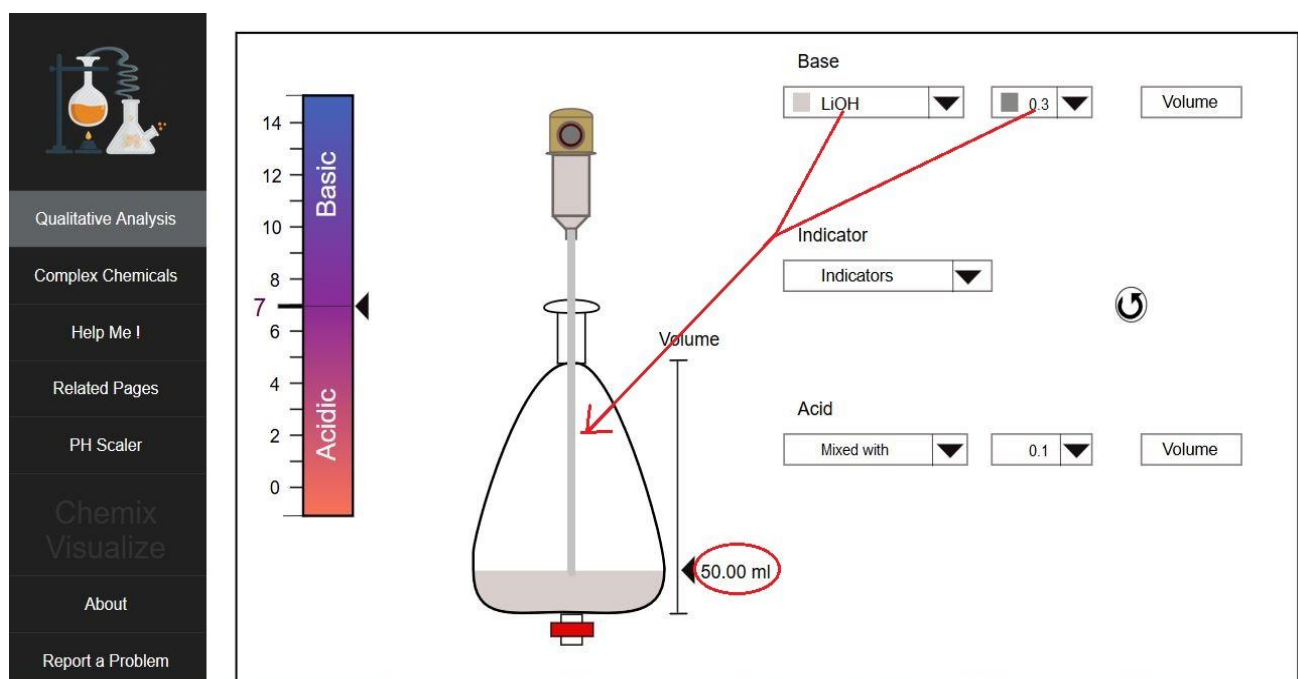


Figure 2. Adding base to the flask

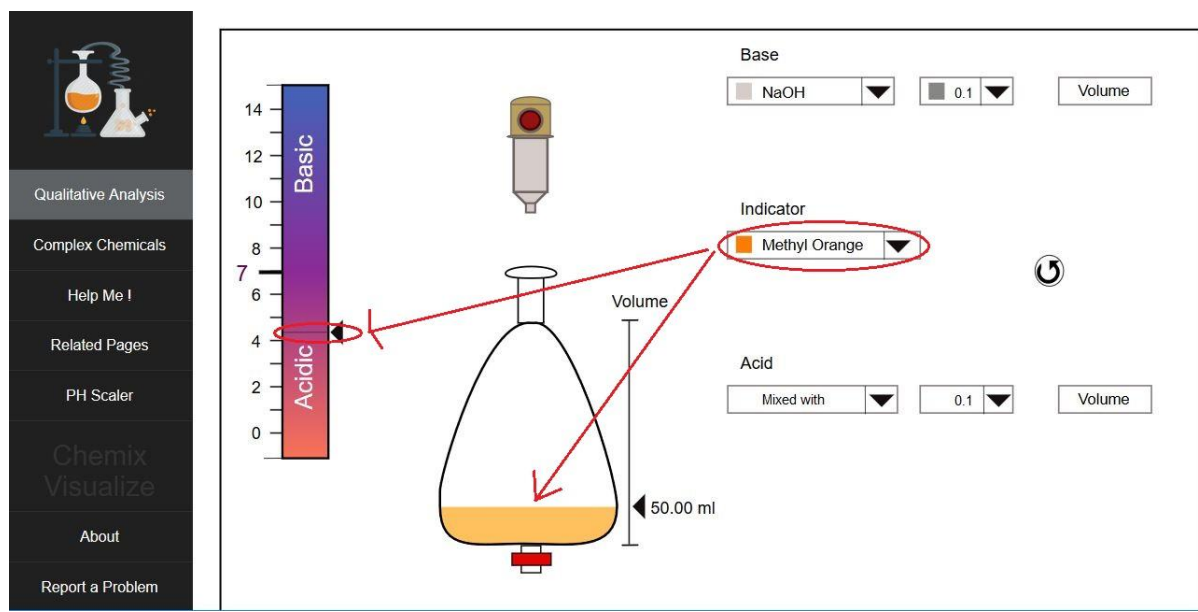


Figure 3. Colour Change of the base for the indicator and the PH value of the indicator in base

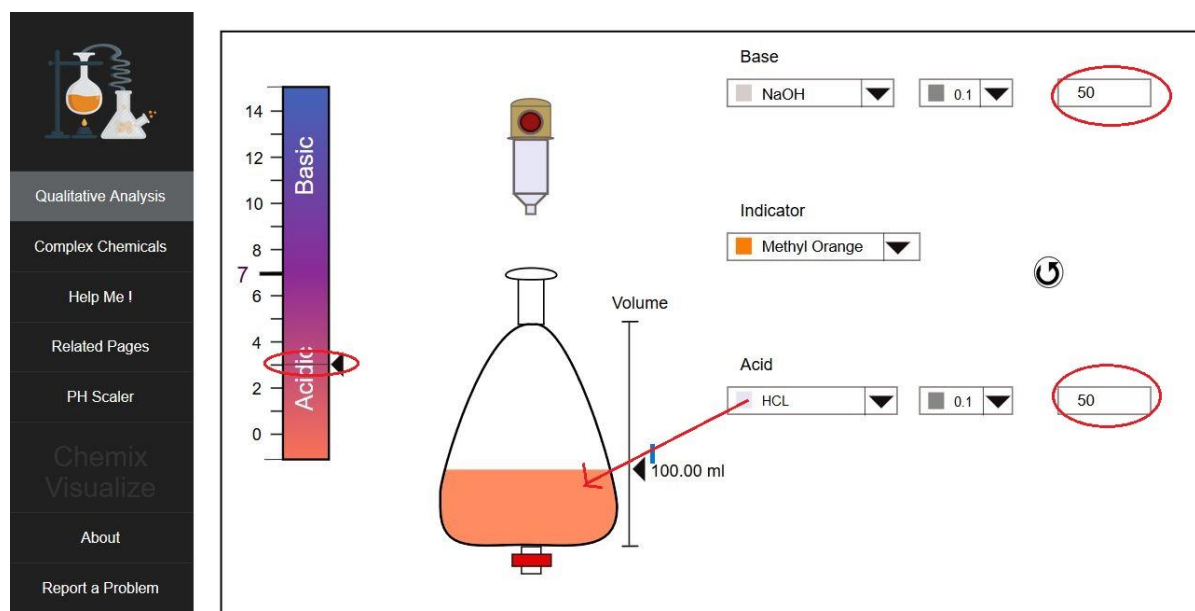


Figure 4. Colour Change of the base for the indicator and the PH value of the indicator in acid

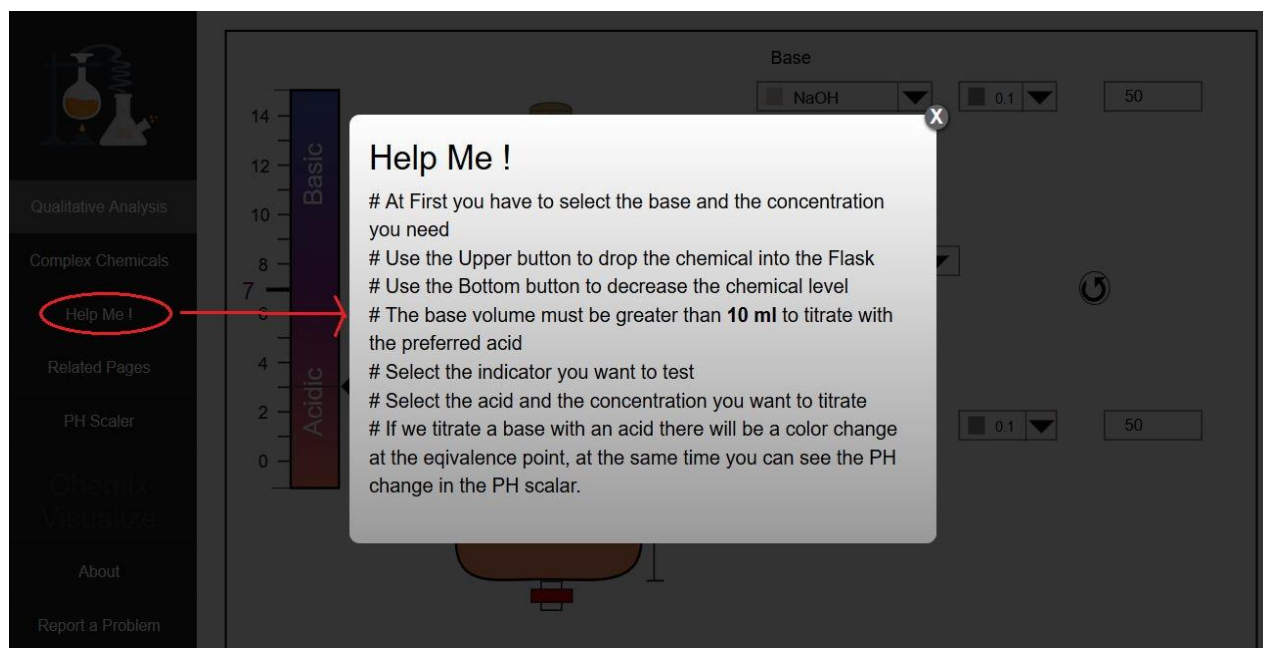


Figure 5.Help me icon the procedure.

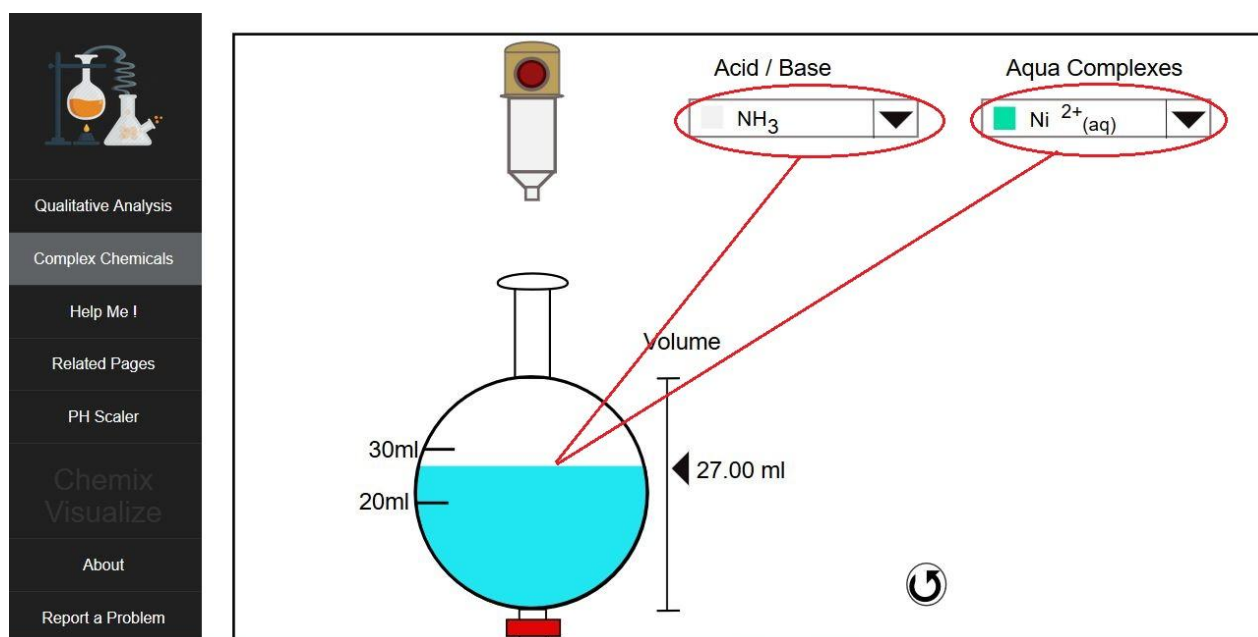


Figure 6.Colour change of aqua chemical with base

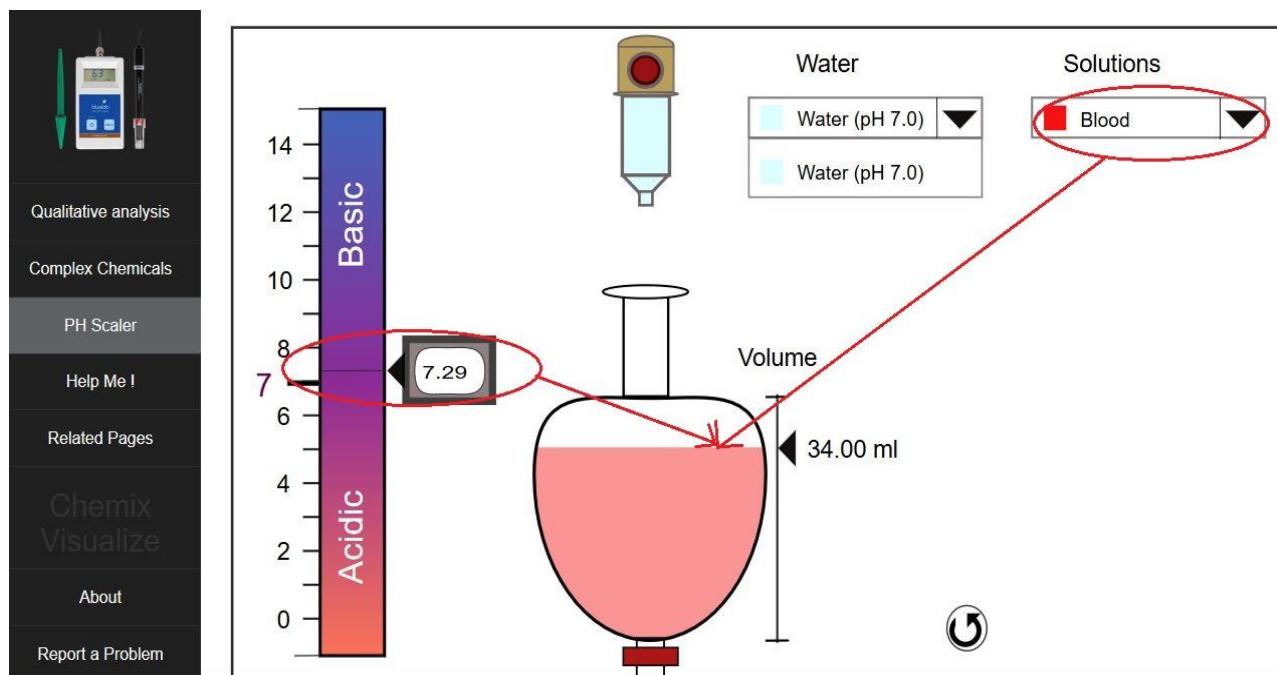


Figure 7.Colour and PH change of specific solution with water.