

Plotting two separate graphs at the same time

Frequently it is necessary to see two plots of two different systems at the same time. This is useful when comparing similar results between calculations. In this example, we have the results of a mixer calculation where we are absorbing chlorine into two different caustic (sodium hydroxide) solutions. Each caustic solution is at different concentrations.

You can download a copy of the example file from this location:

http://wiki.olisystems.com/wiki/images/5/5a/Chapter_38_-_2-Plots.zip

We will now open the file:

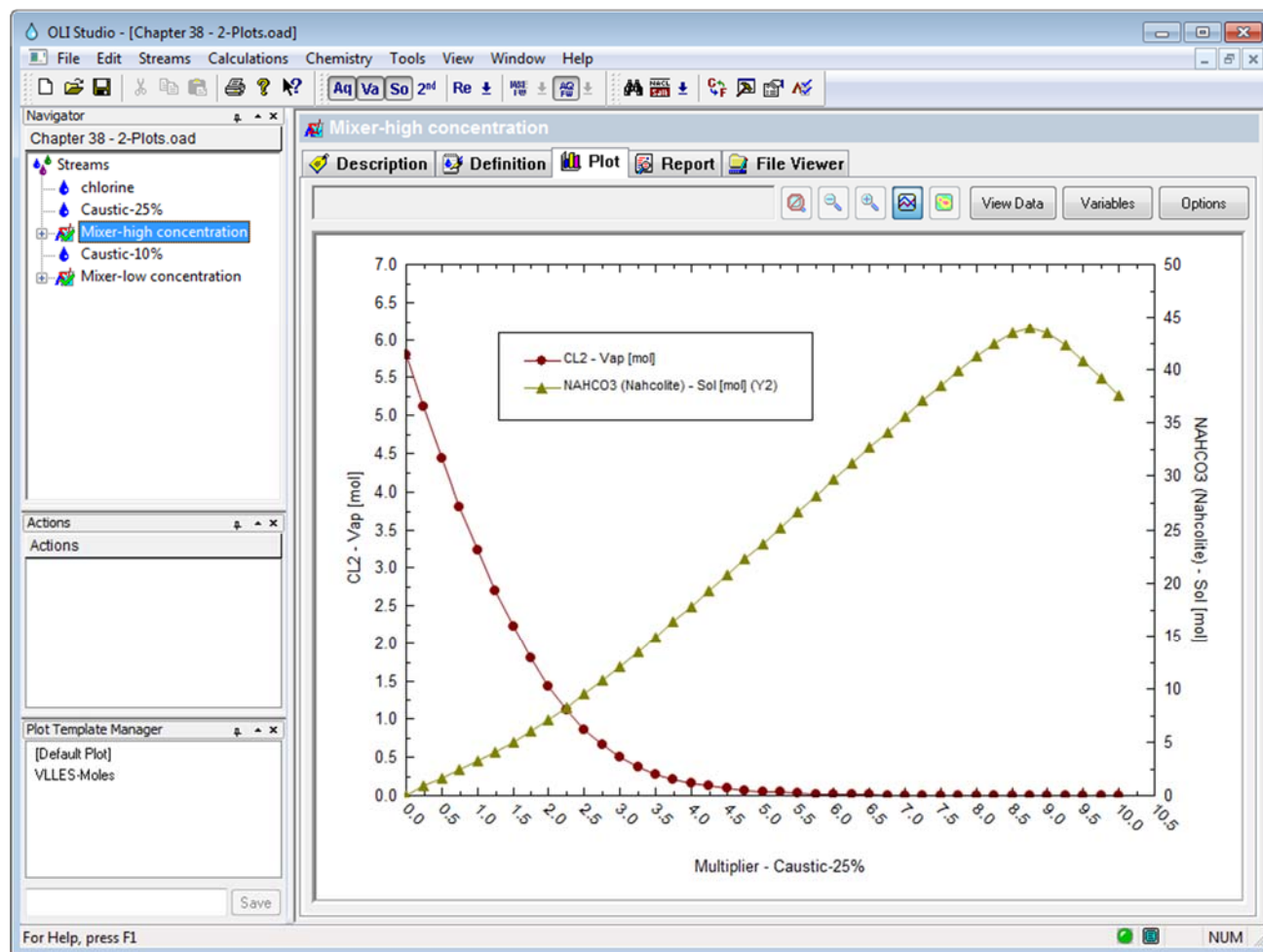


Figure 21 Our sample file

We have already set up our plot to display our variables. In this case, we have a 25 weight % caustic solution. It is beyond the scope of this tutorial to explain the chemistry and analysis of this case. We would like to simultaneously see the low concentration case.

To do this select **Window** from the menu line and then select **New Window**.

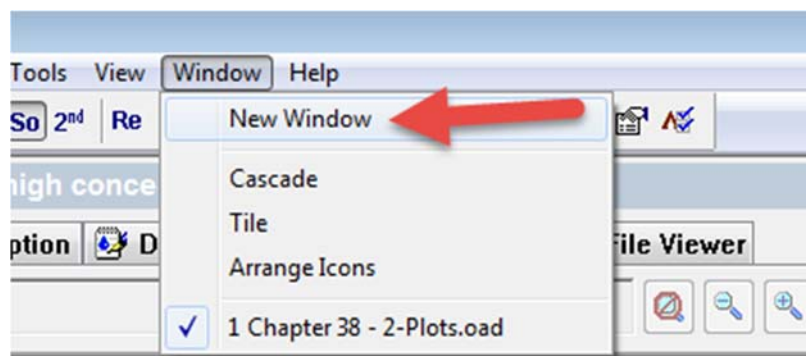


Figure 22 Creating a new window

This will create an exact reproduction of the same file. Notice that we have appended a window identifier for each file (the colon :1 or :2 in this case).

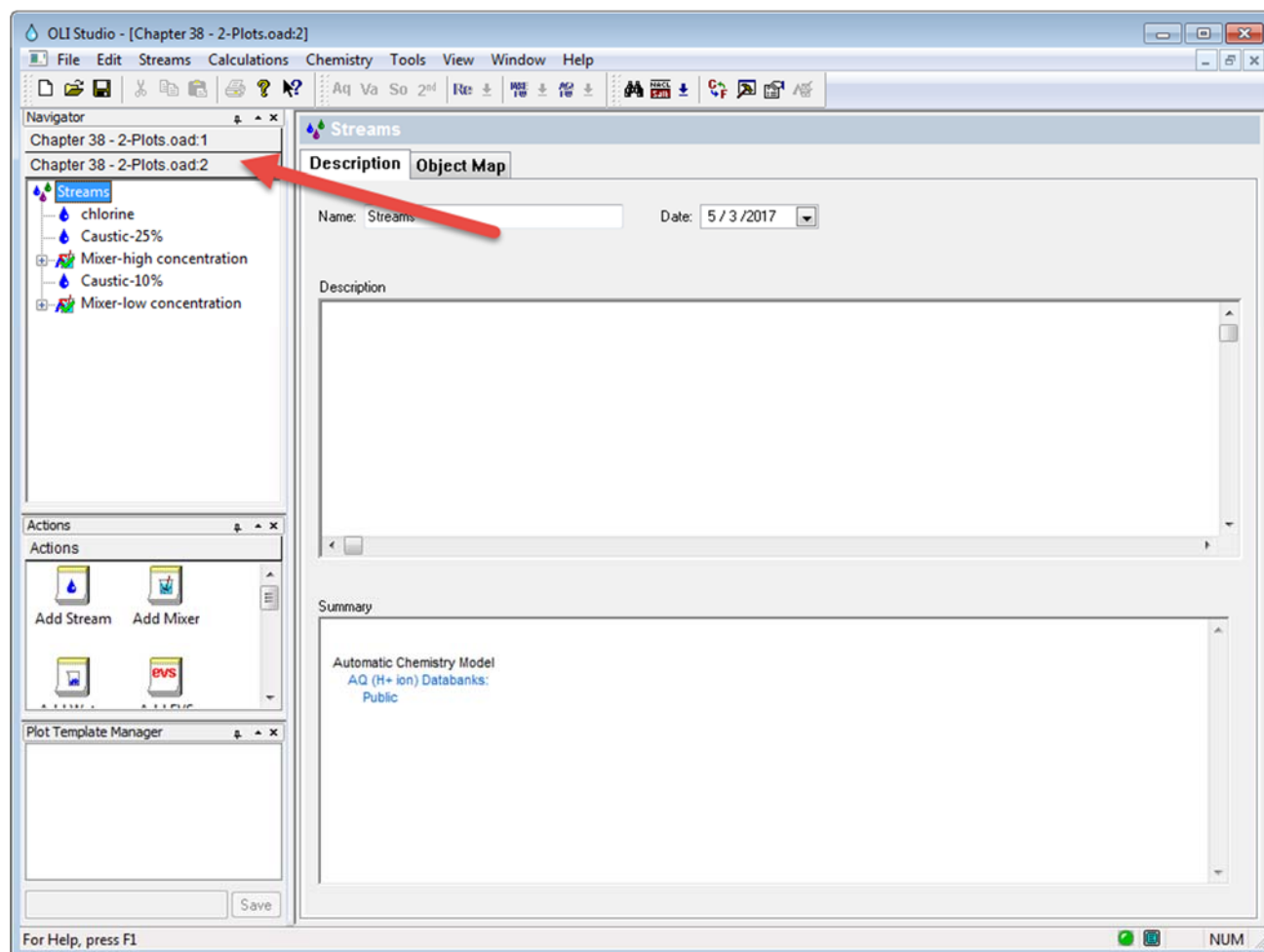


Figure 23 The new window

Now we select the other mixer and set up the plot with the same variables as the first plot:

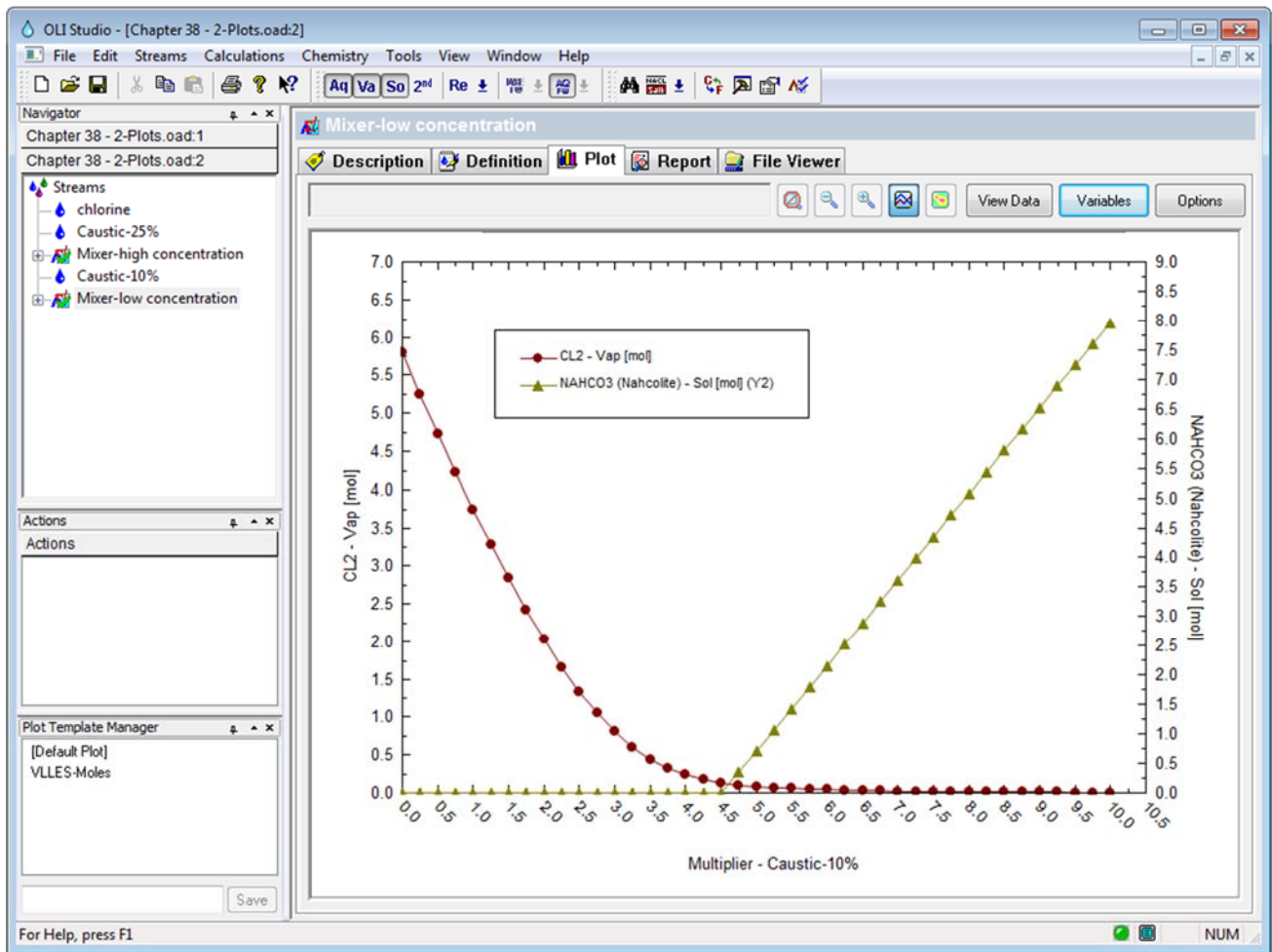


Figure 24 Plotting the low concentration case

Now we begin the process of putting both plots on the same display. Reselect **Window** and this time select **Tile**

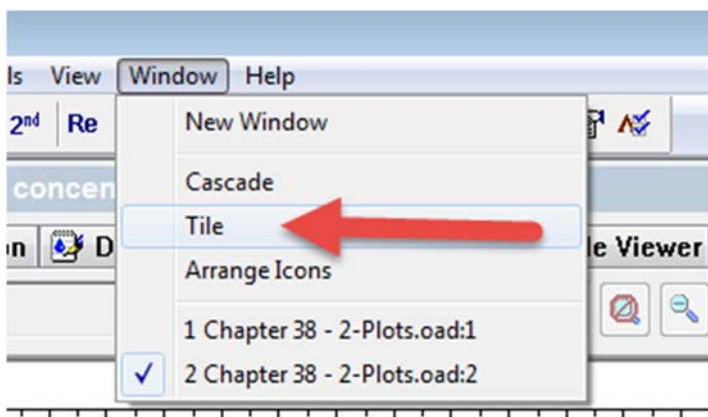


Figure 25 Tiling the images

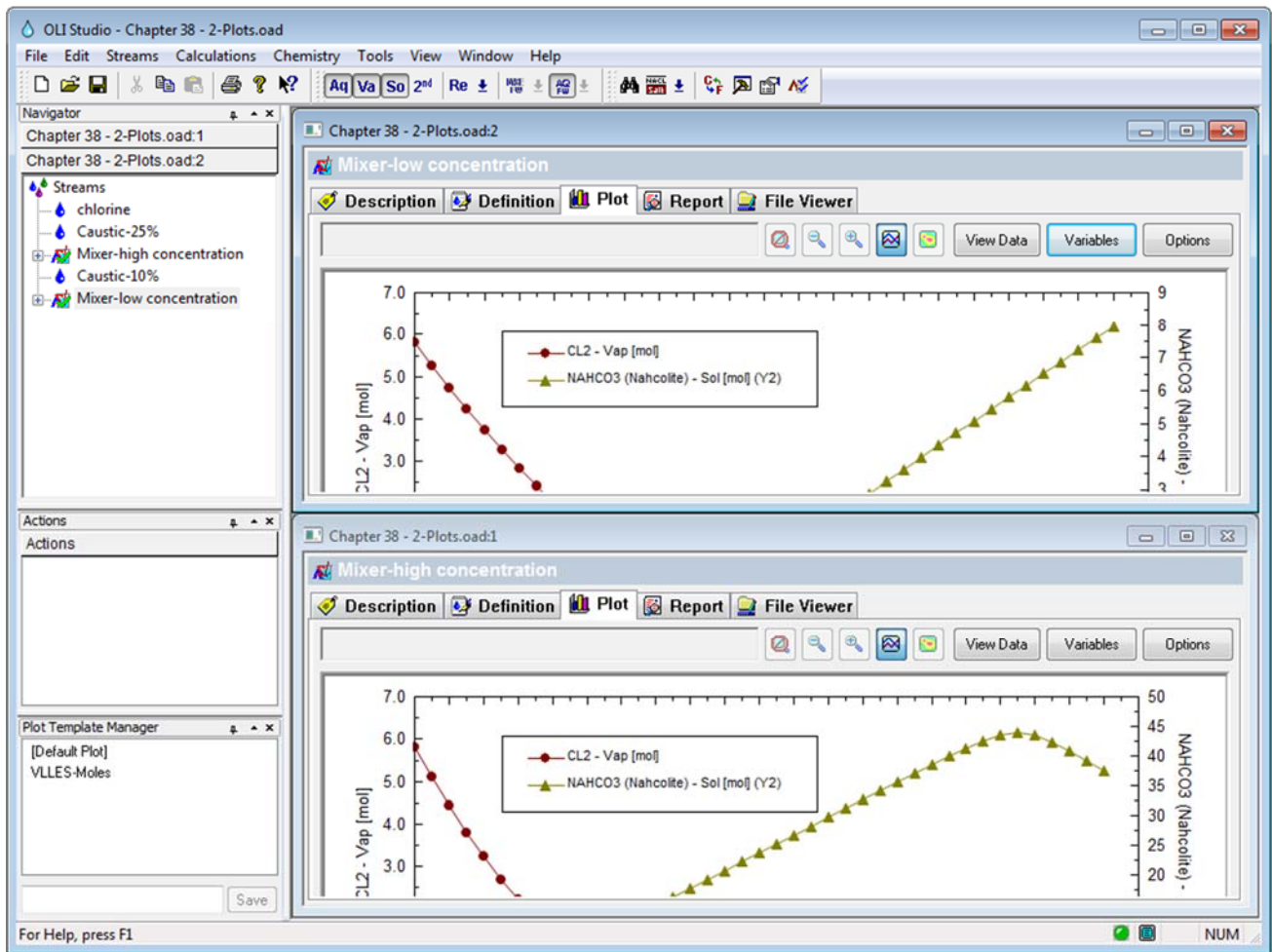


Figure 26 The tiled images

One of the limitations of a program such as Microsoft Word is that we are usually constrained by page width. To limit the amount of space we have artificially decreased the width of the OLI Studio window to make it fit on our page. What the user will have to do is resize the images so both fit at the same time.

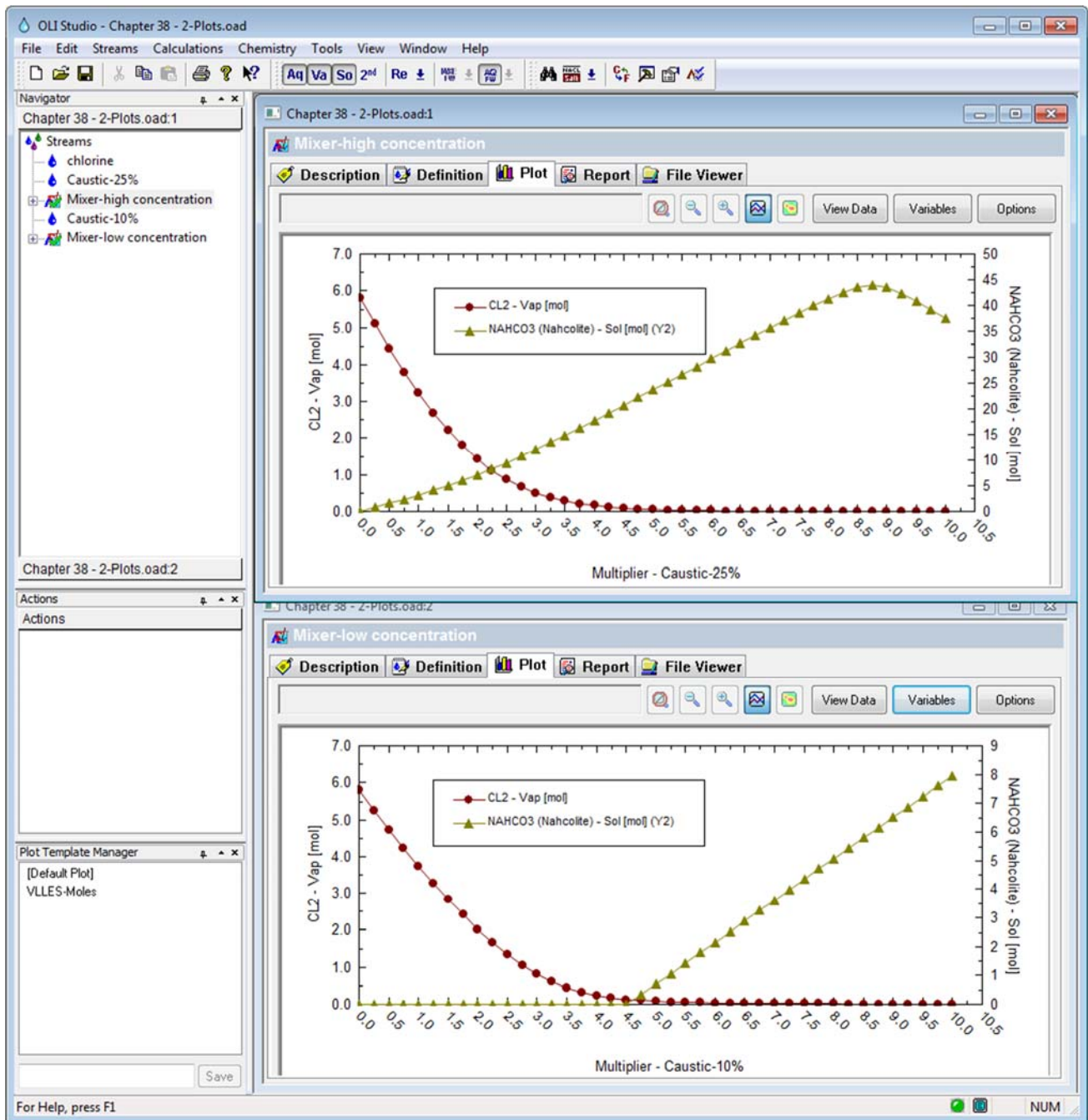


Figure 27 Resized Pictures

You will notice that the top window slightly overlaps the bottom window. This was done to make the image fit into Microsoft Word. You will get different results depending on the size of your monitor.

To complete the analysis here the top image is using a more concentrated solution of sodium hydroxide than the other and the formation of the solid sodium bicarbonate appears earlier than in the bottom (lower concentration) display. This may be important if you are designing multi-stage scrubbers.