

Lab sheet #3
-Dilution of solutions-

Objectives:

- To get familiar with solution dilutions by different methods.

(1) Prepare 50ml with 1:20 dilution using the 0.08M NaOH solution which you prepared in the previous lab

Calculation:

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➔ To prepare the 1:20 dilutionml of the starting solution (0.08M NaOH) is needed and volume made up to a final volume ofml.

(2) Prepare 100ml of 0.2M HCl from the previously 0.4M HCl solution which you prepared in the previous lab

Calculation:

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➔ To prepare the 0.2M HClml of the starting solution (0.4M HCl) is needed and volume made up to a total volume ofml by adding water.

(3) Starting with 3 M Copper Sulfate solution, prepare 8ml of four standard solutions (1 to 4) of the following Molarity respectively (dilution 2:8)

(1) M (2) M (3) M (4) M .

Calculation:

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➔ To prepare standard solution 1: ml of the stock 3 M solution is needed and volume made up to ml with distilled water.

→ **To prepare standard solution 2-4:** ml of the previously diluted solution is taken and volume is made up to a final volume of ml by the addition of distilled water.

Note:

Atomic weights: Na = 23, Cl = 35.5, O = 16, H = 1