

Lab: Making Up Solutions

Pre lab Assignment

Explain the experimental details, together with calculations how you would prepare 500 mL of a 0.20 M, solution of NaOH.

Purpose

To make a solution of given solute in a given volume of solvent.

Procedure

Make up one of the following solutions ...

- if you have a 100 mL volumetric flask, prepare a 0.2 M solution.
- if you have a 250 mL volumetric flask, prepare a 0.1 M solution.
- if you have a 500 mL volumetric flask, prepare a 0.5 M solution.

solute =

volume of solvent =

solution =

concentration of solution required =

no. of moles of solute, $n = c \cdot v$ (in L)

molar mass of solute =

\therefore mass of solute required to be massed = no. of moles \cdot molar mass of solute

Conclusion

Extension

Is the solute ionic or covalent? Explain

Write a dissociation equation for the solute you used.

Calculate the concentration of the cation in your solution.

If you removed 50 mL of solution from your volumetric flask, what would it contain?

What would be the concentration of this 50 mL solution?