

Making a standard solution of potassium hydrogen phthalate ($\text{KHC}_8\text{H}_4\text{O}_4$) solution Weigh out between 1.2 g of potassium hydrogen phthalate crystals in a tared 100-mL beaker. Rinse the beaker three times with small amounts of distilled water and add these rinses to the volumetric flask. Now add distilled water up to the 100-mL mark of the volumetric flask. Label this solution "dilute NaOH solution". Titration Place the dilute NaOH solution in the burette and titrate a 10.00 mL aliquot of potassium hydrogen phthalate with it. Do this in the same manner as in Practical 5. Perform the titration as many times as necessary until at least three "volumes added" agree to within 0.10 mL (higher precision than 0.10 mL is better) Circle the values of the "Volumes added" that agree to within 0.10 mL. Take an average of these values. Dilution of Sodium Hydroxide Solution Transfer 10.00 mL of the stock solution of sodium hydroxide into a 100-mL volumetric flask and add distilled water up to the calibration mark.