

THIS PROCEDURE HAS BEEN MODIFIED TO CUT DOWN ON THE AMOUNT OF REAGENT EACH STUDENT GROUP NEEDS, WHILE STILL GIVING EACH GROUP BENEFIT OF PREPARING THEIR OWN CALIBRATION CURVES.

Weigh approximately 0.10-0.11 g of ASA to the nearest milligram and transfer the solid ASA to a 125- ml Erlenmeyer flask. Be sure to record the mass of your ASA sample on your data sheet 1. Measure 10 ml of 1.0 M NaOH in a graduated cylinder and add this to the Erlenmeyer flask containing your ASA sample. Heat the solution mixture to a gentle boil to ensure the complete hydrolysis of the ASA. If any residue is deposited on the walls of the flask, use distilled water to rinse it back into solution.

Transfer the resulting solution from the above procedure to a 100-ml volumetric flask. Thoroughly rinse the Erlenmeyer flask with distilled water and transfer the rinsing to the 100-ml volumetric flask. Add approximately 50-ml of distilled water to the volumetric flask and mix contents thoroughly. Continue adding distilled water to the volumetric flask until the bottom of the meniscus reaches the calibration mark of the flask. Mix the contents thoroughly and label the flask solution #1.

Rinse a 5-ml pipet with solution 1 three times and discard the rinsings. To a 50-ml volumetric flask add 5-ml of (solution 1) and fill the remainder of the flask with 2.0×10^{-2} M FeCl₃-KCl-HCl solution (be sure to mix contents thoroughly). Label this flask Solution A. In a similar fashion, prepare solutions labeled B, C, D, and E by diluting 4.00-, 3.00-, 2.00-, and 1.00 ml of solution 1 with FeCl₃-KCl-HCl. If student data for aspirin analysis falls below this calibration curve, have students make solution F by diluting 0.50 mL of solution 1 in a 50-mL volumetric.

NO MODIFICATION IS NECESSARY TO PART III.