Name:_____
Section:_____ Date:_____

Preliminary Report

Experiment: Using Internal Standard in HPLC

1. What is the difference between normal-phase and reversed-phase chromatography.

2. Why does eluent strength increase in reversed-phase chromatography when a less polar solvent is added?

3. What kind of analytes do you expect to give the best response from a UV-vis detector? Does this detector response to all kind of analytes?

4. In a preliminary experiment, a solution containing 0.0837 M X and 0.0666 M S gave peak areas of A_x = 423 and A_s = 347 (in arbitrary units). To analyze the unknown, 10.0 mL of 0.146 M S were added to 10.0 mL of unknown, and the mixture was diluted to 30.0 mL in a volumetric flask. This mixture gave a chromatogram with peak areas A_x = 553 and A_s = 582. Find the concentration of X in the unknown?