

GY303 Petrology Laboratory
Igneous rock thin section point counting

Introduction

In this lab you will identify the minerals and proportions of minerals in a thin section with the use of a counting stage based on a 200 point count. You will be assigned to work with a specific thin section as part of a group. Average together your points counts from each group member. After tabulating all point counts and converting to percentages plot your thin section on the appropriate IUGS ternary igneous classification diagram. You have two weeks to complete this lab.

Products

1. Turn in a summary of the mineralogy and associated 200 point counts. Also diagram the geometry of your point count grid. (10x10, 5x20, etc.). Draw the sketch of your thin section that you used to orient the slide on the stage. If you wish you can organize the point counts conveniently in a spreadsheet, and then print out a hard copy to turn in. Label this page with your name and the name of the thin section in the upper right corner.
2. Plot the compositional point on the appropriate IUGS ternary and label the point with the thin section identification. Before plotting the point check with your instructor about the most appropriate IUGS ternary diagram. Label the ternary classification diagram with the sample I.D. of the thin section, the rock classification name, and your name in the upper right corner of the plot.