G 214 Optical Mineralogy and Igneous Petrology	G 214 Optiese Mineralogie en Stollingspetrologie
Practical One -16th February 2006	Praktika Een – 16 Februarie, 2006
Total Marks = 100	Totale Punte = 100
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Introduction to the Identification of Minerals in Thin-Sections Inleiding tot die Identifikasie van Minerale in Dunsnitte	
Due Date: 14.00, 2nd March, 2006	Due Date: 14.00, 2 Maart, 2006
YOUR NAME:	STUDENT NO:

OBJECTIVES

The objectives of this practical are to:

1. Learn how to identify minerals in thin section
2. Understand the difference between birefringence, pleochroism, extinction angle, color and relief.
3. Construct a table summarizing the main features of different rock-forming minerals to use as a tool for thin-section work.

INSTRUCTIONS

There are four thin-sections to look at which have a number of different minerals in them. Use the optical characteristics that you have learnt to identify which minerals are which. As this practical will go for two weeks you can also use information that you will learn in the lectures next week.

Points you should consider include:

1. The mineral assemblage.
2. Whether the minerals are matrix porphyroblast, porphyroclasts or phenocrysts.
3. Distinguish between major and accessory minerals.
4. Textural relationships between minerals

WHAT YOU MUST HAND IN

Construct a table summarizing the main features of different rock-forming minerals that you have seen using the template that has been given to you. Also write a one page report discussing the differences between the thin-sections and what other minerals you have seen, ie minerals other than the major-rock forming minerals. Remember to include some sketches of the thin-sections you look at.

DOELSTELLINGS

Die doelstellings van die prakties is om:

1. Te leer hoe om minerale in dunsnit te identifiseer.
2. Die verskil tussen dubbelbreking, pleochroïsme, uitdowingshoek, kleur en reliëf te verstaan.
3. ‘n Tabel te konstrueer wat die hoof eienskappe van verskillende rotsvormende minerale opsom as hulpmiddel vir dunsnit-werk.

INSTRUKSIES

Daar is vier dunsnitte met verskillende minerale waarna u moet kyk. Gebruik die optiese eienskappe wat u geleer het om die minerale te identifiseer en uit te ken. Hierdie prakties duur twee weke, dus kan u ook inligting wat u in volgende week se lesings sal bekom, gebruik.

Die volgende moontlike punte kan ingesluit word:

1. Die mineraalversameling teenwoordig.
2. Watter minerale maak deel uit van die matriks en watter is porfiroblaste, porfiroklaste of fenokriste.
3. Onderskei tussen die hoofminerale en bykomstige minerale.
4. Beskryf kortliks die tekstuur van die gesteente in dunsnit.

WAT U MOET INHANDIG

Maak 'n tabel met die hoof eienskappe van die verskillende rots-vormende minerale wat u gesien het – gebruik die tabel wat u reeds het. Skryf ook 'n enkelbladsy verslag oor die verskille tussen die dunsnitte en ander minerale wat u gesien het d.w.s. minerale anders as die hoof rots-vormende minerale. Onthou om sketse van die dunsnitte wat u gesien het in te sluit.