

(41)

Sample No. : 3RS15
Locality : Lugiingol
Rock name : Nepheline syenite
Observation note :

This specimen is light bluish gray, medium-grained nepheline syenite. It consists of K-feldspar(orthoclase-microperthite), nepheline; green hornblende, biotite and a small amount of cancrinite, calcite, sphene, fluorite and opaque oxide. K-feldspar occurs as anhedral elongated crystals and includes poikilitically nepheline and mafic crystals. Nepheline is partly replaced by cancrinite, calcite, sericite and zeolite(natrolite?).

(42)

Sample No. : 3SN2
Locality : Tsagaansuvraga
Rock name : Meta-dacite
Observation note :

This specimen is brownish gray, fine-grained dacite which has undergone conspicuously an argillization and zeolitization. Phenocryst minerals are plagioclase (oligoclase), hornblende and opaque oxide. Plagioclase phenocrysts, 0.5-2mm in length, are mostly altered to zeolite(laumontite). Hornblende phenocrysts, 0.5-2mm in length, are opacitized. Groundmass shows a felsitic texture but is wholly altered to zeolite(laumontite) and clay mineral(smectite?).

(43)

Sample No. : 3SN10
Locality : Tsagaansuvraga
Rock name : Quartz monzonite
Observation note :

This specimen is pale pink, coarse-grained quartz monzonite. It consists of plagioclase(oligoclase), K-feldspar(orthoclase-microperthite), quartz, hornblende and a small amount of apatite, opaque oxide, sphene and monazite. Plagioclase occurs as euhedral crystals, about 5mm in length, and it is distinctly zoned with sericitized core. K-feldspar and quartz occur interstitially between plagioclase and mafic crystals. Hornblende, 1-2mm in length, is wholly chloritized.

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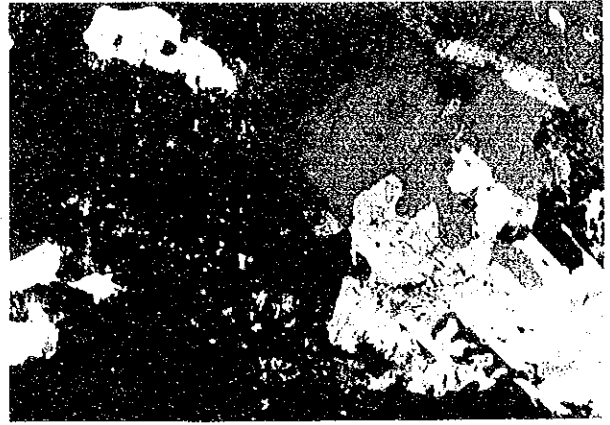
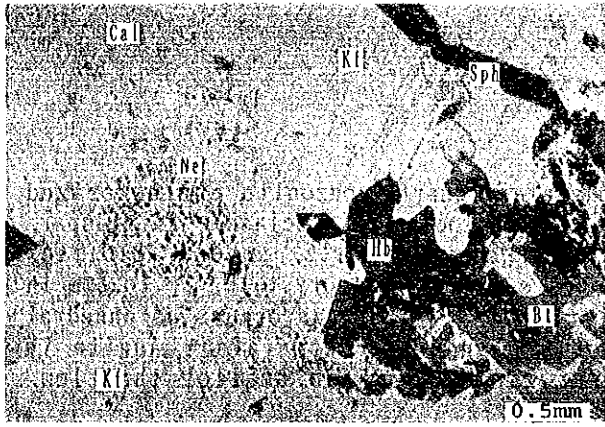
Sample No. : 3SN21
Locality : Tsagaansuvraga
Rock name : Greisen
Observation note :

This specimen is gray chalcopyrite-muscovite-quartz greisen. It consists principally of anhedral quartz, up to 2mm in diameter, and fibrous muscovite, 0.1-0.4mm in length, and subordinately of K-feldspar(orthoclase), calcite, fluorite and chalcopyrite. K-feldspar is mostly replaced by quartz and muscovite.

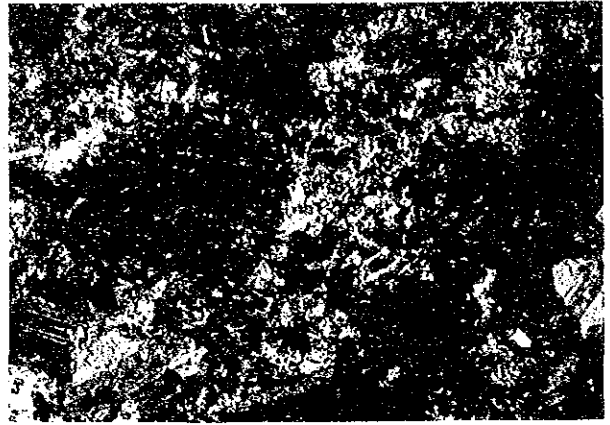
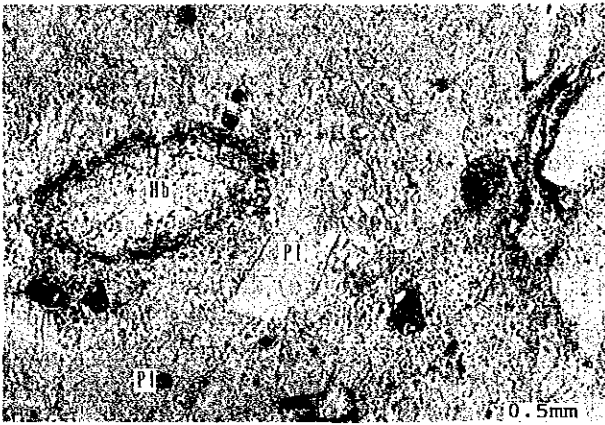
Plane polarized light

Crossed polarized light

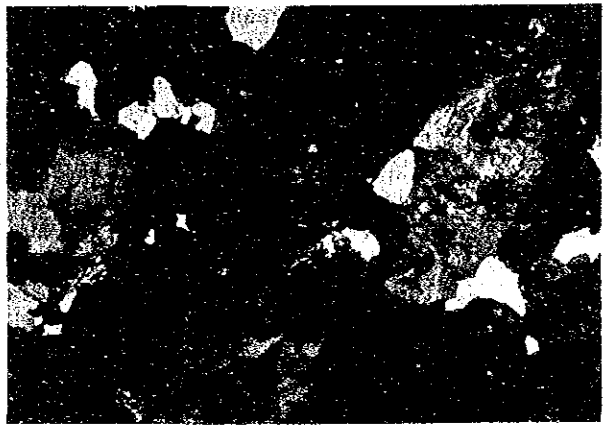
(41)



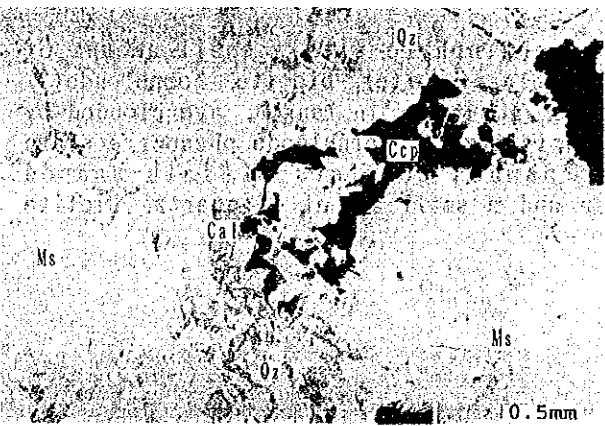
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(43)



(44)



(45)

Sample No. : 3SN22

Locality : Tsagaansuvraga area

Rock name : Quartz monzonite

Observation note :

This specimen is pale pink, coarse-grained quartz monzonite characterized by the monzonitic texture. It consists of plagioclase(oligoclase), K-feldspar, (orthoclase-microperthite), green hornblende, augite, quartz, sphene, biotite, opaque oxide and apatite. Plagioclase occurs as euhedral crystals, up to 5mm in length, and is weakly zoned and sericitized. K-feldspar occurs as anhedral crystals, interstitial between plagioclase and mafic crystals. Augite is usually mantled by hornblende. Quartz is anhedral and smaller than 1mm. Biotite is mostly chloritized.

(46)

Sample No. : 3SS7

Locality : Tsagaansuvraga

Rock name : Keratophyre

Observation note :

This specimen is reddish brown keratophyre with plagioclase phenocryst. Plagioclase phenocryst is long prismatic, 0.5-4mm in length, probably of albite composition but clouded by minute hematite and sericitized. A small amount of mafic phenocryst, probably pyroxene, are wholly altered to calcite. Groundmass consists principally of small euhedral plagioclase(albite), about 0.1mm in length, and subordinately of altered mafic mineral, quartz, opaque oxide and apatite.

(47)

Sample No. : 3SS24

Locality : Tsagaansuvraga

Rock name : Quartz monzonite

Observation note :

This specimen is light pink, porphyritic quartz monzonite injected by quartz vein. Phenocryst minerals are mainly of plagioclase(albite), 1-5mm in length, showing an antiperthitic structure characterized by dominant orthoclase lamellae within a host plagioclase crystal. A small amount of quartz, biotite (chloritized) and apatite phenocrysts are present. Groundmass shows a fine-grained(0.1-0.2mm across) granular texture and consists of subhedral K-feldspar (orthoclase), quartz and plagioclase.

(48)

Sample No. 3SS34

Locality : Tsagaansuvraga

Rock name : Keratophyre

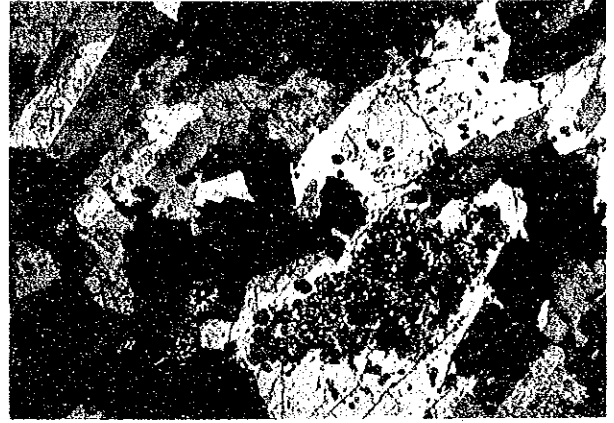
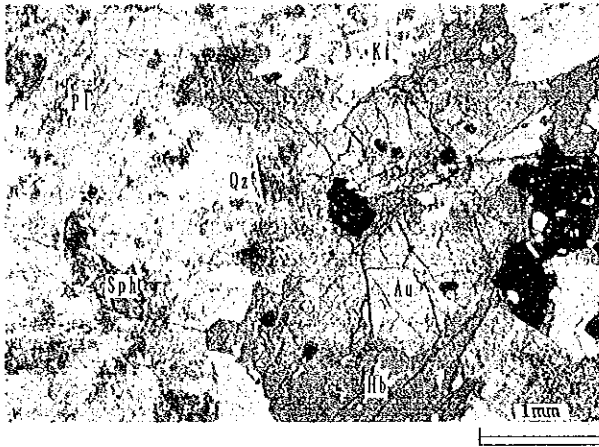
Observation note :

This specimen is reddish brown keratophyre with a small amount of phenocryst. Phenocryst minerals are plagioclase(albite), biotite, hornblende(?) and opaque oxide. Plagioclase phenocrysts, about 1mm in length, are clouded by minute hematite crystals and highly sericitized. Hornblende phenocrysts are wholly altered to smectite. Groundmass consists of lath-shaped plagioclase(albite), anhedral K-feldspar and a small amount of quartz, biotite and opaque oxide.

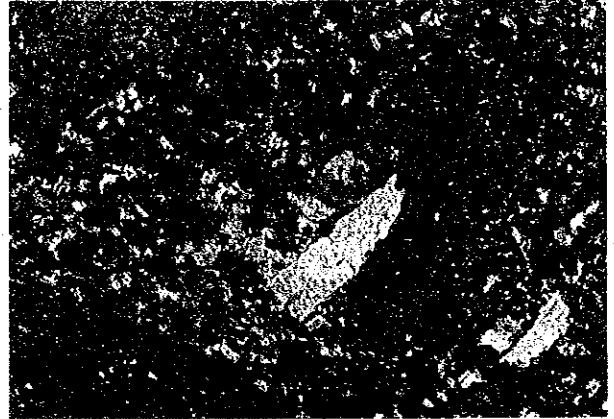
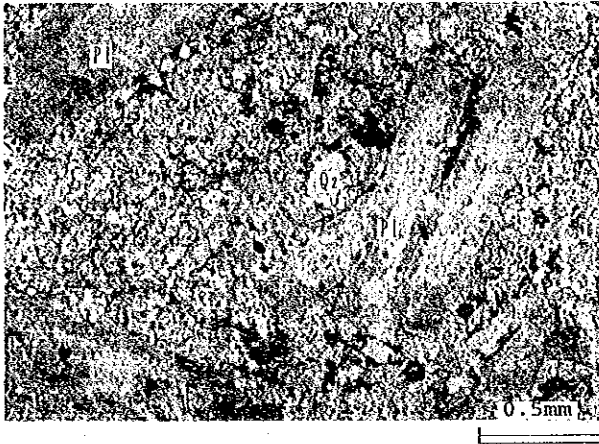
Plane polarized light

Crossed polarized light

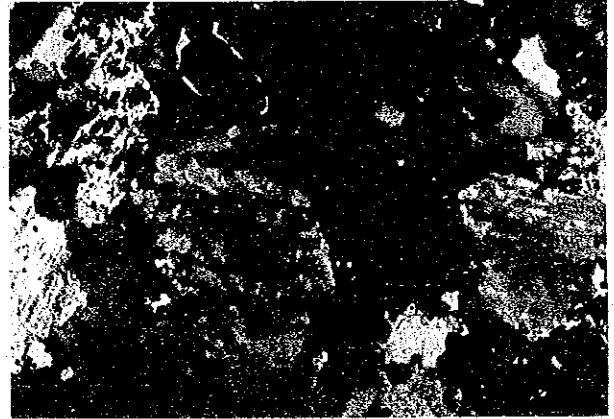
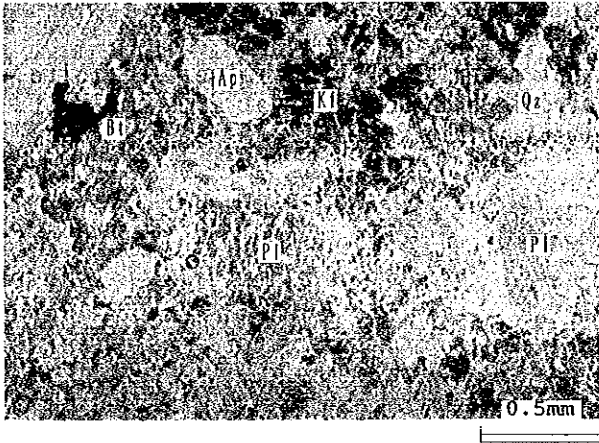
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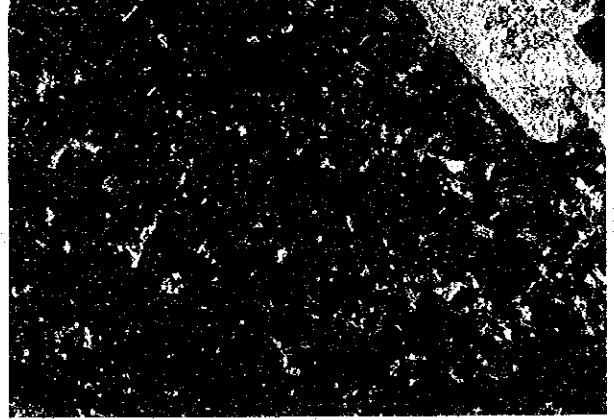
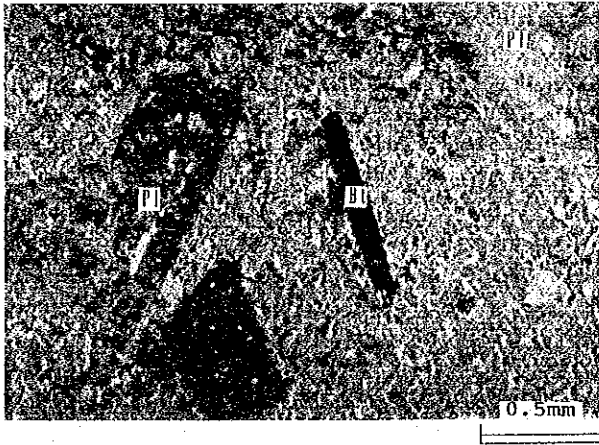
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(47)



(48)



(49)

Sample No. 3TN1

Locality : Tumurtiin- Ovoo

Rock name : Skarn

Observation note :

This specimen is black to greenish gray skarn. It consists of garnet (andradite) and opaque oxides (magnetite and hematite). It is highly brecciated and replaced by network veinlets consisting of calcite and quartz.

(50)

Sample No. : 3TN3

Locality : Salaa

Rock name : Granite

Observation note :

This is pale pink, coarse-grained granite. It consists of K-feldspar (orthoclase-microperthite), quartz, plagioclase (oligoclase), muscovite, biotite and a small amount of opaque oxide, monazite and fluorite. Plagioclase occurs as euhedral short prismatic crystals, 1-5mm in length. Quartz occurs as euhedral to anhedral crystals, 1-5mm across. K-feldspar occurs as anhedral interstitial crystals with 5-10mm length between plagioclase and quartz crystals. Both plagioclase and K-feldspar are partly replaced by anhedral muscovite crystals.

(51)

Sample No. : 3TN4

Locality : Salhiit core strage

Rock name : Skarn

Observation note :

This specimen is yellowish gray garnet skarn with opaque mineral-calcite vein. Garnet (andradite) is weakly anisotropic and shows a zonal structure. It is highly brecciated and replaced by network veinlets consisting of calcite and quartz.

(52)

Sample No. 3TN7

Locality : Salhiit core strage

Rock name : Cortlandite

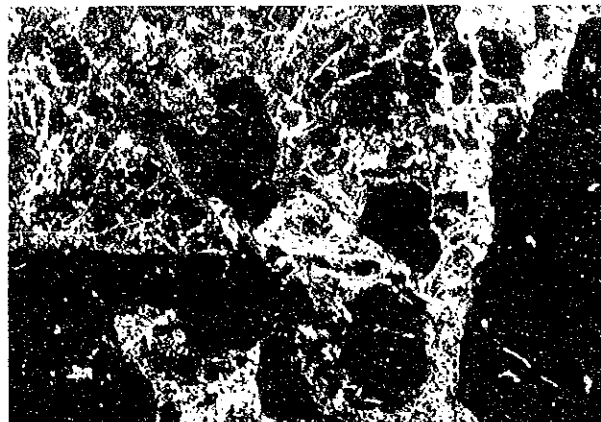
Observation note :

This specimen is dark gray, coarse-grained cortlandite. It consists principally of brown hornblende, olivine, augite, apatite, biotite and opaque oxide in a decreasing order. Hornblende occurs as large anhedral crystals, up to 1cm in length, poikilitically including olivine and other mafic crystals. Olivine is euhedral crystal, 0.5-2mm across, and its rim is replaced by fibrous colorless amphibole, probably tremolite. Apatite is enriched in some parts as euhedral elongated crystals, up to 4mm in length. Secondary minerals, such as serpentine and talc, are observed.

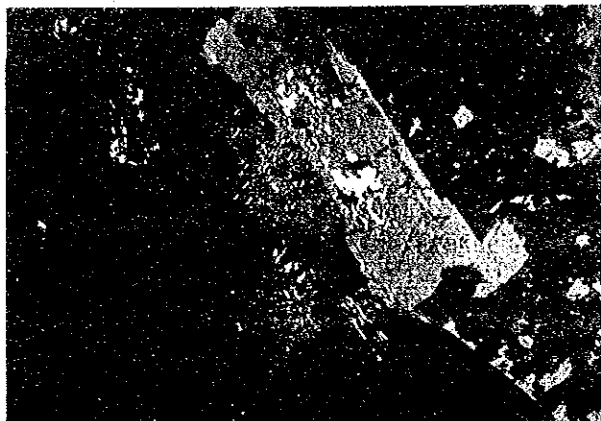
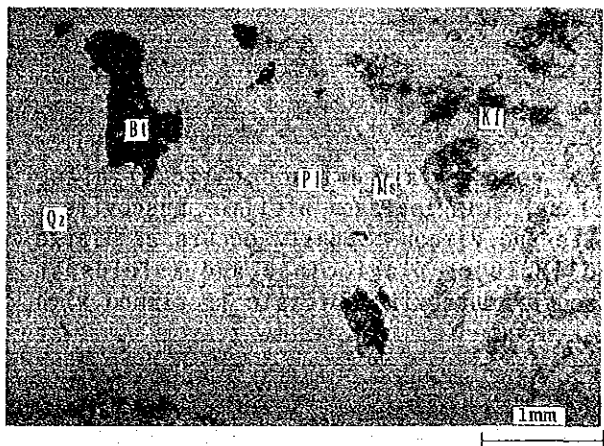
Plane polarized light

Crossed polarized light

(49)



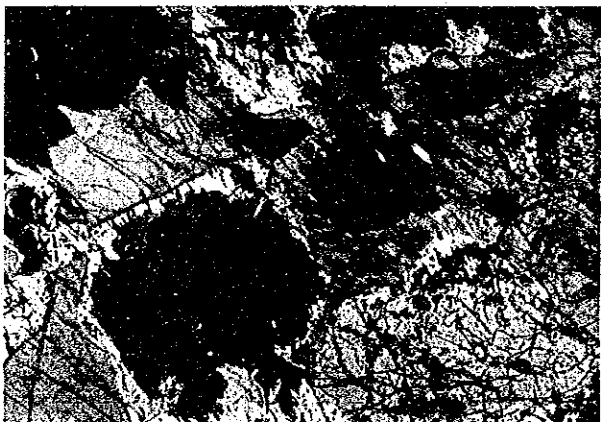
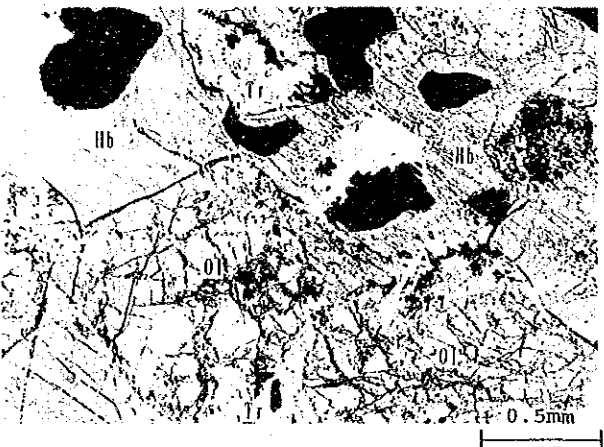
(50)



(51)



(52)



(53)

Sample No. 3TS2

Locality : Arin-Nuul

Rock name : Granite

Observation note :

This specimen is light yellow-orange, coarse-grained leucocratic granite. It consists of quartz, K-feldspar(orthoclase-microperthite), plagioclase (oligoclase) and a small amount of biotite, muscovite, apatite, calcite and molybdenite. Quartz occurs as subhedral granular crystals, 5-10mm across, usually an aggregate of quartz subgrains. K-feldspar is subhedral, 5-10mm in length and includes plagioclase crystals. Plagioclase occurs as subhedral tabular crystals, smaller than 5mm, and highly sericitized. Molybdenite occurs as platy crystals closely associated with muscovite.

(54)

Sample No. : 3TS7

Locality : Arin-Nuul

Rock name : Granite

observation note :

This specimen is light yellow-orange, coarse-grained leucocratic granite. It consists of quartz, K-feldspar(orthoclase), plagioclase, biotite, muscovite and a small amount of molybdenite, apatite and zircon. Quartz occurs as large anhedral crystals, up to 2cm across and includes plagioclase and K-feldspar crystals. Plagioclase is mostly replaced by muscovite. Biotite is rimmed with muscovite or intergrown with muscovite.

(55)

Sample No. : 3TS29

Locality : Tumurtiin-Ovoo

Rock name : Marble

Observation note :

This specimen is light yellowish gray, schistose marble. It is made up almost exclusively of recrystallized calcite, smaller than 2mm, showing a preferred orientation. Fine-grained opaque minerals and quartz are arranged as thin layers parallel to the schistosity.

(56)

Sample No. : 3TS30

Locality : Tumurtiin-Ovoo

Rock name : Skarn

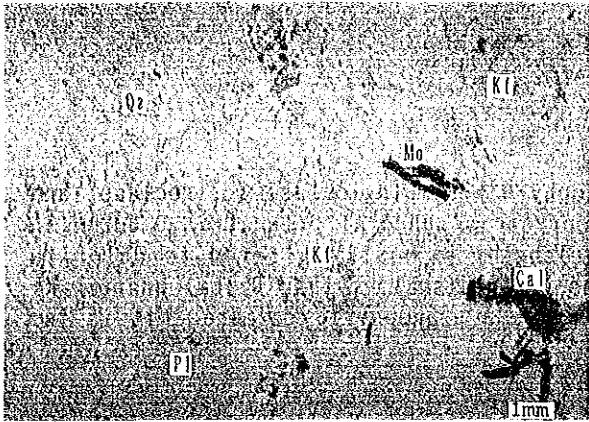
Observation note :

This specimen is greenish gray skarn. It consists principally of garnet(andalusite), sphalerite and magnetite. Garnet is brecciated and replaced by network veinlets of calcite. Magnetite is partly changed into hematite.

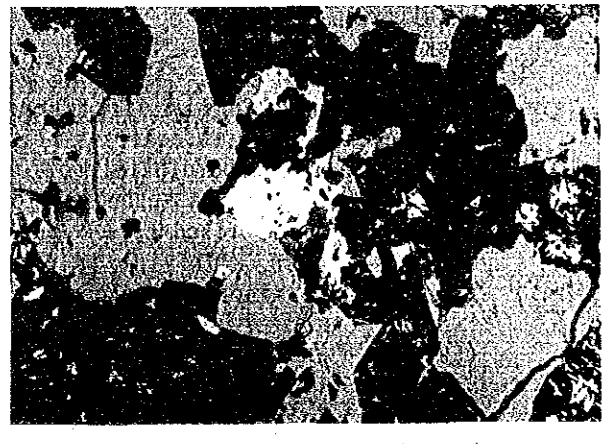
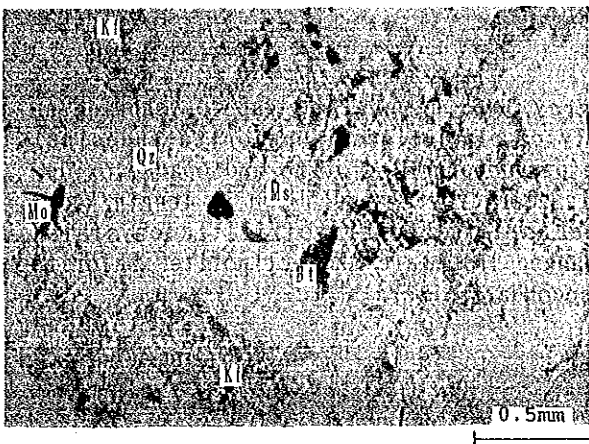
Plane polarized light

Crossed polarized light

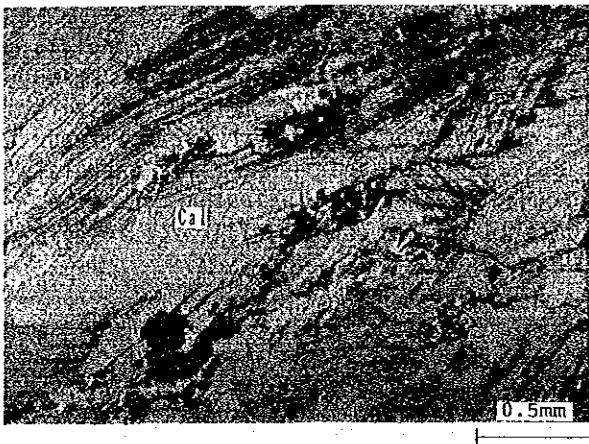
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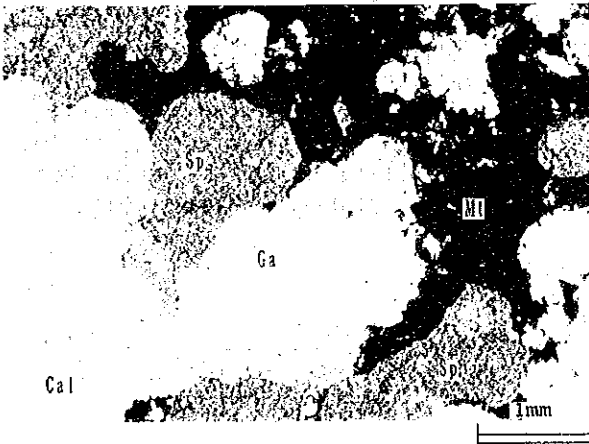
(54)



(55)



(56)



(57)

Sample No. : 3TS31

Locality : Tumurtiin-Ovoo

Rock name : Granophyre

Observation note :

This specimen is reddish gray granophyre with plagioclase (oligoclase) and biotite phenocrysts. Plagioclase phenocryst is euhedral prismatic, 0.5-2mm in length. Biotite phenocryst, 0.2-1mm in length, is mostly altered to chlorite and epidote. Groundmass consists of fine-grained (smaller than 0.1mm) quartz, K-feldspar, plagioclase and biotite, and shows a granophyric texture. It is injected by an epidote vein.

(58)

Sample No. : 3TS32

Locality : Salaa

Rock name : Gabbro

Observation note :

This specimen is dark greenish gray, medium-grained gabbro, showing an ophitic texture. It consists principally of plagioclase (labradorite-andesine) and augite and subordinately of olivine (pseudomorph), biotite and opaque oxide. Plagioclase occurs as euhedral long prismatic crystals, 0.5-2mm in length, commonly with sericitized core. Augite occurs as anhedral poikilitic crystals, 0.5-2mm across. Olivine is wholly changed into talc and actinolite. Chlorite and carbonate minerals are observed as secondary minerals.

(59)

Sample No. : 3TS40

Locality : Salhiit core strage

Rock name : Granite

Observation note:

This specimen is pale reddish brown, coarse-grained granite. It consists principally of plagioclase (oligoclase), quartz, K-feldspar (orthoclase-microperthite) and biotite and subordinately of opaque oxide, apatite and zircon. Plagioclase is subhedral, 0.5-5mm in length, distinctly sericitized. Quartz is subhedral to anhedral, 2-5mm across. K-feldspar occurs as anhedral porphyritic crystals up to 1cm, highly clouded by hematite inclusion. Biotite, 0.5-1mm across, is mostly chloritized. Calcite veinlet and chlorite veinlet are recognized.

(60)

Sample No. : 3TS42

Locality : Salhiit core strage

Rock name : Granite

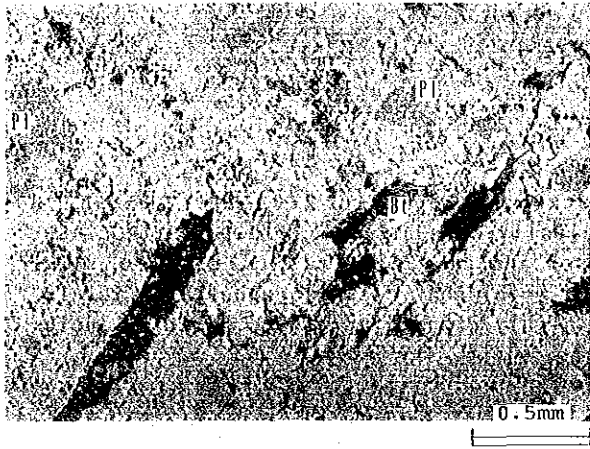
Observation note :

This specimen is pale pink, coarse-grained granite. It consists principally of plagioclase (oligoclase), quartz, K-feldspar (orthoclase-microperthite) and biotite and subordinately of opaque oxide, apatite and zircon. Plagioclase occurs as euhedral to subhedral crystals, 1-5mm in length, replaced by sericite and calcite. Quartz occurs as subhedral to anhedral interstitial crystals, up to 1cm across. K-feldspar occurs as anhedral interstitial crystals, up to 1cm across, highly clouded by minute hematite inclusion. Biotite is mostly altered to chlorite, calcite and siderite(?).

Plane polarized light

Crossed polarized light

(57)



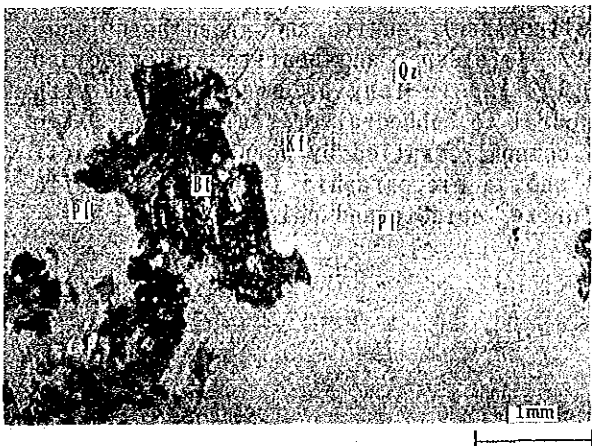
(58)



(59)



(60)



(61)

Sample No. : 3TY1
Locality : Tumurtiin-Ovoo area
Rock name : Aplitic granite
Observation note :

This specimen is pale pink, fine-grained aplitic granite, showing a xenomorphic texture. It consists principally of quartz, K-feldspar(orthoclase-microperthite) and plagioclase(oligoclase) and subordinately of biotite, muscovite and opaque oxide. Both quartz and K-feldspar occur as anhedral crystals, about 0.5mm across, while the latter is highly clouded by minute hematite inclusions. Plagioclase is less abundant.

(62)

Sample No. : 3TY4
Locality : Tumurtiin-Ovoo area
Rock name : Granite
Observation note :

This specimen is pale pink, fine to medium-grained granite. It consists principally of quartz, K-feldspar(orthoclase-microperthite), plagioclase and biotite and subordinately of opaque oxide, apatite and zircon. Quartz occurs as subhedral granular crystals, 0.5-1mm across. K-feldspar occurs as subhedral crystals, 0.5-2mm across, clouded by minute hematite inclusions. Plagioclase occurs as subhedral sericitized crystals, 0.5-4mm in length. Biotite, about 1mm in length, is mostly altered to chlorite and epidote.

(63)

Sample No. : 3UN1
Locality : Olon-Ovoot area
Rock name : Graphic granite
Observation note :

This specimen is light brownish gray, medium-grained, leucocratic granite. It consists principally of quartz and sodic plagioclase(albite) and subordinately of biotite, opaque oxide and zircon. Quartz and plagioclase crystals, both 1-3mm across, show a micrographic intergrowth. Biotite is mostly altered to chlorite and sericite.

(64)

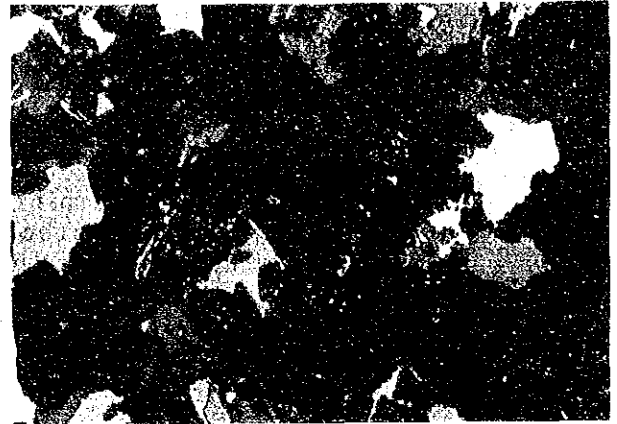
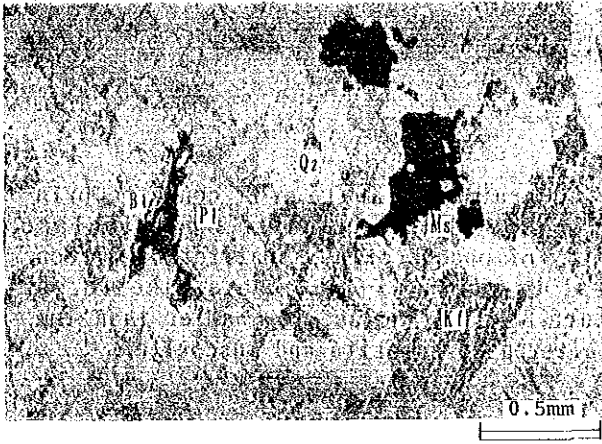
Sample No. : 3UN2
Locality : Olon-Ovoot area
Rock name : Gabbro
Observation note :

This specimen is dark greenish gray, fine-grained gabbro. It consists principally of plagioclase(labradorite-oligoclase), augite and green hornblende and subordinately of opaque oxide, quartz, K-feldspar and apatite. Plagioclase occurs as euhedral prismatic crystals, 0.2-1mm in length, highly zoned with sericitized core. Augite occurs as euhedral to subhedral crystals, about 0.5mm in length, showing a sector zoning and commonly mantled by hornblende. Quartz and K-feldspar occur interstitially and show a micrographic intergrowth. Mafic minerals are considerably altered to chlorite, epidote and calcite.

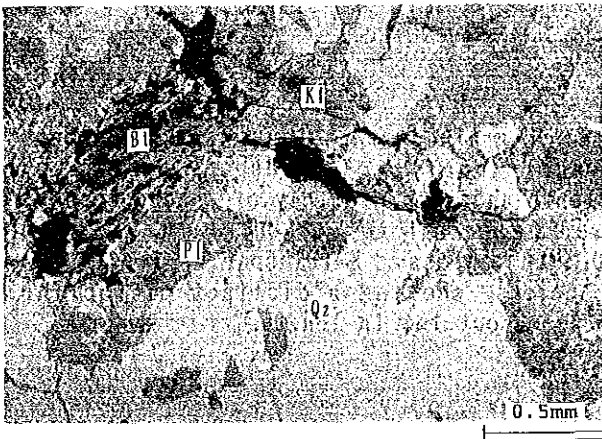
Plane polarized light

Crossed polarized light

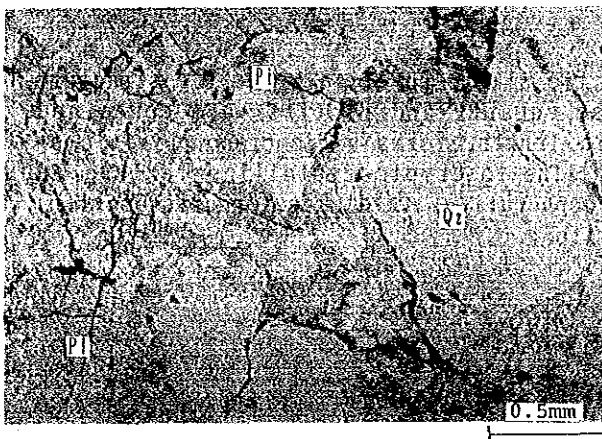
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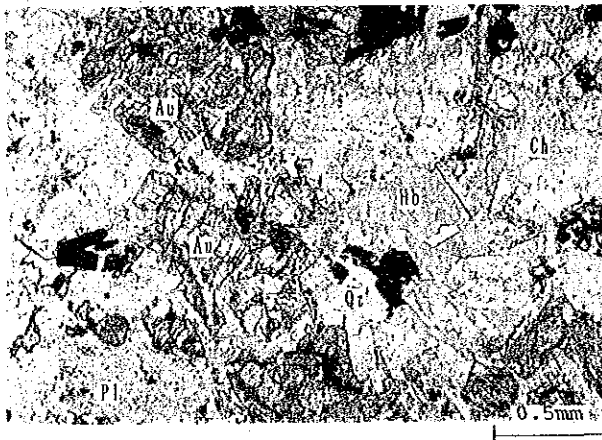
(62)



(63)



(64)



(65)

Sample No. : 3UN3
Locality : Olon-Ovoot area
Rock name : Granite
Observation note :

This specimen is pale pink, medium-grained granite. It consists principally of K-feldspar (microcline-microperthite), quartz, plagioclase (oligoclase) and biotite and subordinately of opaque oxide, apatite and zircon. K-feldspar and quartz occur as anhedral crystals, 1-4mm across, the former showing a distinct microcline structure. Plagioclase is smaller than 1mm. Biotite, smaller than 0.5mm, is partly altered to chlorite and muscovite.

(66)

Sample No. : 3UN4
Locality : Olon-Ovoot area
Rock name : Granodiorite
observation note :

This specimen is yellowish gray, medium-grained granodiorite. It consists principally of plagioclase (oligoclase), quartz, K-feldspar (microcline-microperthite), biotite and green hornblende and subordinately of sphene, opaque oxide, apatite and zircon. Plagioclase is euhedral to subhedral, 0.5-4mm in length. Quartz is subhedral granular, 0.5-5mm across. K-feldspar is less abundant and anhedral interstitial, 0.5-5mm across, showing a distinct microcline structure. Both hornblende and biotite are about 1mm in length.

(67)

Sample No. : 3UN5
Locality : Olon-Ovoot area
Rock name : Alkali rhyolite
Observation note :

This specimen is pale purple, aphyric alkali rhyolite with flow structure. Small amount of phenocryst (anorthoclase, quartz and biotite) are contained. Anorthoclase phenocryst, about 1mm in length, forms a glomeroporphyritic aggregate. Groundmass shows a microcrystalline to cryptocrystalline texture and consists of quartz, anorthoclase, microspherulite, tridymite (or cristobalite), biotite, opaque oxide, topaz and microlite.

(68)

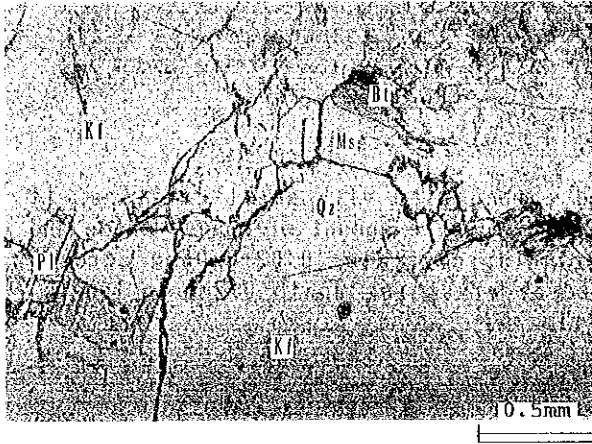
Sample No. : 3UN7
Locality : Hanbogd
Rocks name : Alkali granite
Observation note :

This specimen is light brownish yellow, medium-grained alkali granite. It consists of K-feldspar (microcline-microperthite), quartz, aegirine, arfvedsonite and plagioclase (oligoclase) in a decreasing order. K-feldspar occurs as euhedral to subhedral crystals, 1-5mm in length. Quartz occurs as anhedral interstitial crystals, smaller than 5mm. Aegirine occurs as euhedral to subhedral crystals, smaller than 2mm, giving a pleochroism from yellowish green to green, distinctly zoned. Arfvedsonite occurs as an euhedral to subhedral crystals, smaller than 3mm, gives a pleochroism from yellowish green to blue-gray and shows often an intergrowth with aegirine.

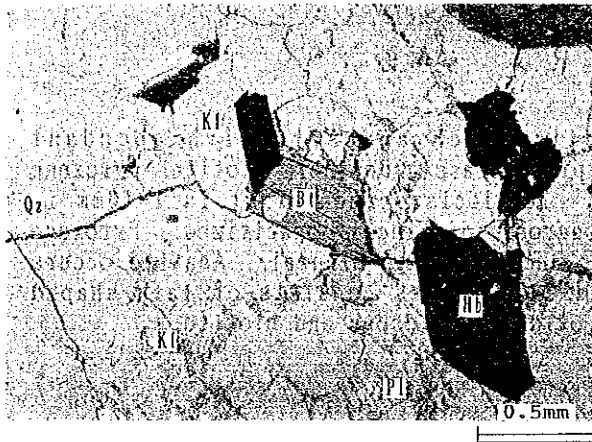
Plane polarized light

Crossed polarized light

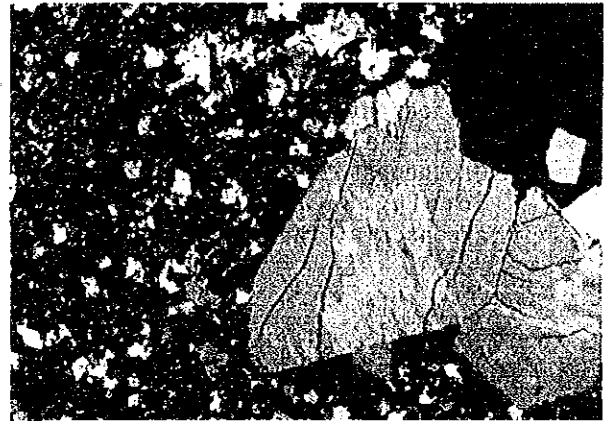
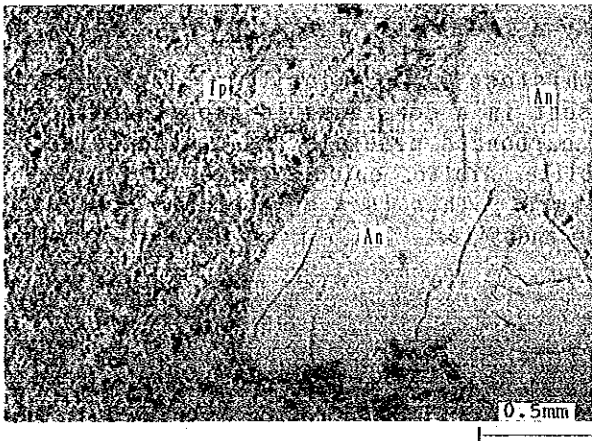
(65)



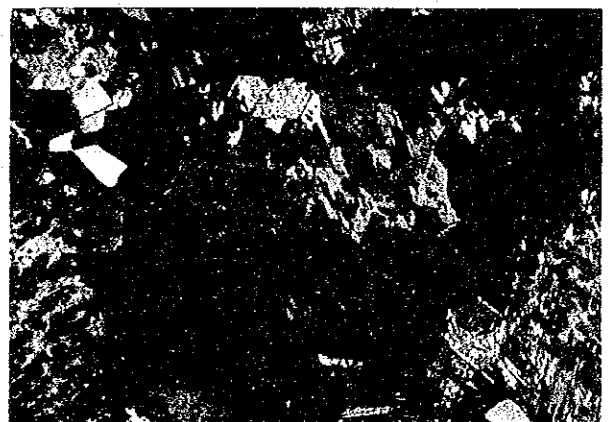
(66)



(67)



(68)



(69)

Sample No. : 3UN18

Locality : Mushugia-Hudak

Rock name : Carbonatite

Observation note :

This specimen is gray, fine-grained carbonatite with small cavities. It consists of calcite and fluorite with subordinate amount of opaque oxide and quartz. Calcite occurs as anhedral granular crystals, 0.02-0.05mm across. Fluorite occurs as euhedral to subhedral crystals, up to 0.2mm in length, larger ones being colorless with purple rim.

(70)

Sample No. : 3UN19

Locality : Mushugia-Hudak

Rock name : Trachyandesite

Observation note :

This specimen is gray porphyritic trachyandesite with abundant phenocrysts. Phenocryst minerals are plagioclase(andesine), biotite, pyroxene (pseudomorph), apatite and opaque oxide. Plagioclase phenocryst is 1-10mm in length. Biotite phenocryst is 0.5-1mm across, distinctly opacitized. Pyroxene phenocryst is wholly altered to smectite and carbonate mineral. Apatite occurs as relatively large crystals, up to 1mm. Groundmass consists of lath-shaped plagioclase(smaller than 0.1mm), opaque oxide, K-feldspar and biotite.

(71)

Sample No. : 3UN19

Locality : Mushugia-Hudak

Rock name : Meta-andesite

Observation note :

This is dark greenish gray, schistose meta-andesite. Plagioclase phenocrysts, 0.5-2mm in length, are present in a considerable amount but now they are wholly replaced by clay and carbonate minerals and opaque oxide. Groundmass is recrystallized into actinolite, albite, epidote and opaque oxide, forming an evident schistose structure. This is a metamorphic rock of greenschist facies, probably derived from andesite.

(72)

Sample No. 3US9

Locality : Mushugia-Hudak

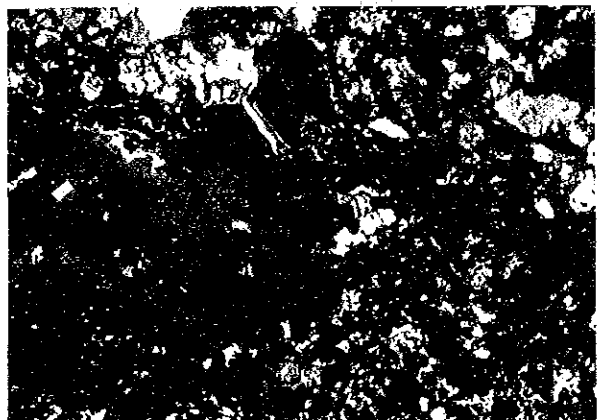
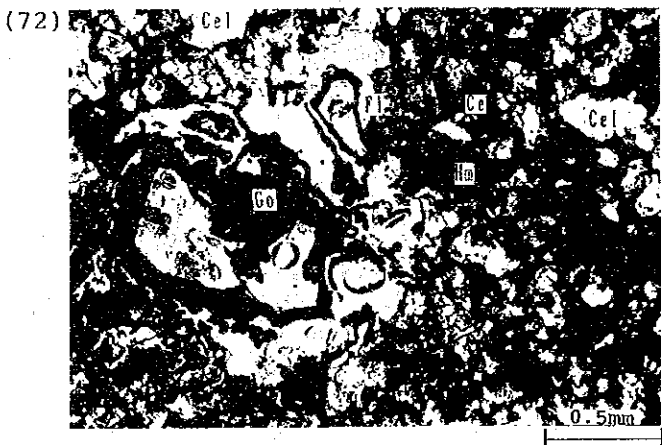
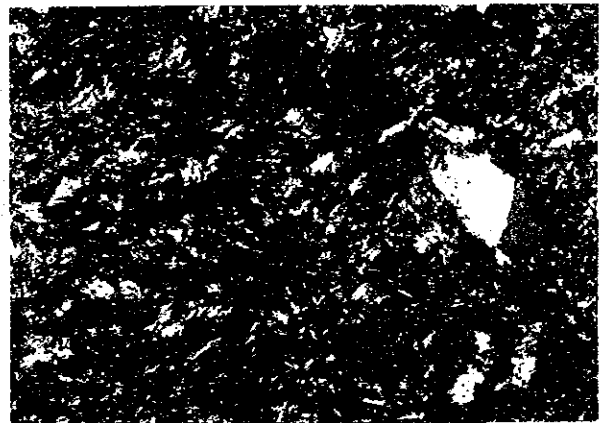
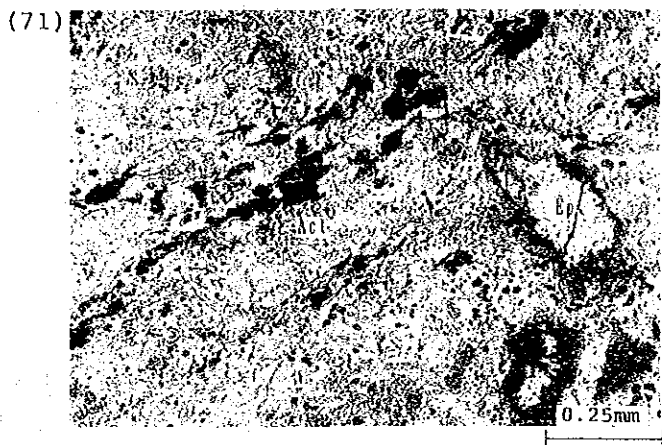
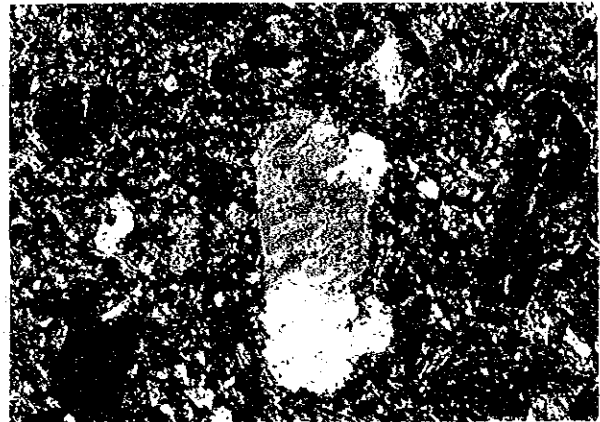
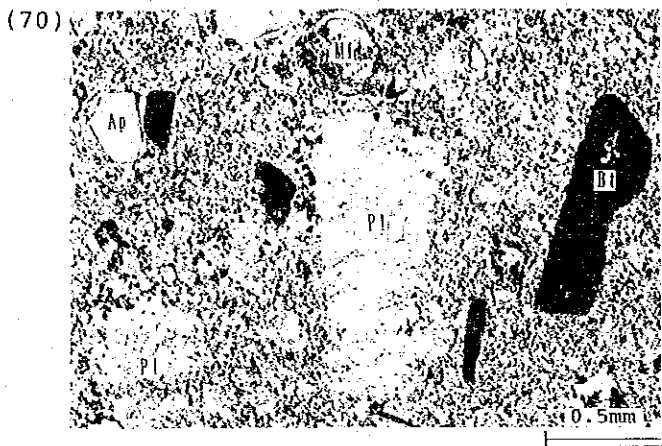
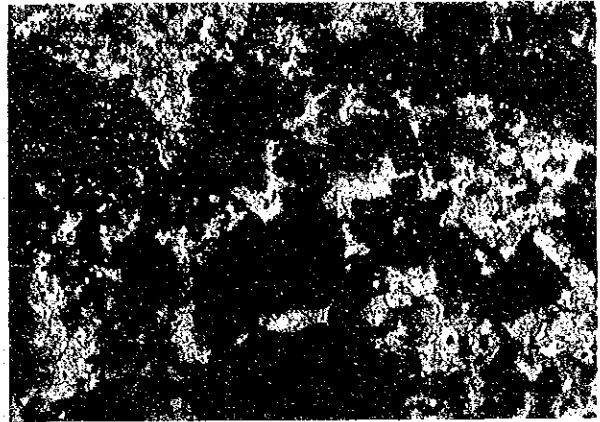
Rock name : Carbonatite

Observation note :

This specimen is reddish brown to black carbonatite with large hematite crystals. It consists of celestite, fluorite, calcite, quartz, hematite and goethite. Celestite occurs as colorless anhedral granular crystals, 0.1-0.5mm across. Small cavities, up to 1mm, are present in a considerable amount.

Plane polarized light

Crossed polarized light



(73)

Sample No. : 3US19

Locality : Mushugia-Hudak

Rock name : Syenite

Observation note :

This specimen is yellowish gray, porphyritic syenite. It consists of K-feldspar (probably microcline), clinopyroxene and small amount of plagioclase (oligoclase), biotite, phlogopite, sphene, apatite and opaque oxide. K-feldspar occurs mostly as large phenocrysts, up to 2cm in length, and also as small granular crystals, usually 0.2-0.5mm across, both showing a microperthitic structure. Clinopyroxene, probably sodian augite, occurs as euhedral to subhedral crystals, smaller than 2mm, giving a pale green color. Small amount of zeolite, probably laumontite, are present as cavity-filling minerals.

(74)

Sample No. : 3US22

Locality : Mushugia-Hudak

Rock name : Gabbro

Observation note :

This specimen is dark gray, fine-grained gabbro showing an ophitic texture. It consists of principally of plagioclase (labradorite-andesine) and augite and subordinately of olivine (pseudomorph), actinolite, sphene, opaque oxide and apatite. Plagioclase is slender prismatic, 0.5-1mm in length. Augite occurs as anhedral, sometimes poikilitic crystals, up to 3mm in length, replaced partly by actinolite. Olivine is wholly changed into actinolite and chlorite.

(75)

Sample No. 3US24

Locality : Mushugia-Hudak

Rock name : Phonolite

Observation note :

This specimen is gray porphyritic phonolite. Phenocryst minerals are of plagioclase (andesine), augite, biotite, olivine, apatite and opaque oxide. Plagioclase phenocrysts, up to 5mm in length, show often a distinct zoning. Augite phenocrysts, probably sodian augite, up to 2mm in length, give a pale green color. Groundmass consists of nepheline, K-feldspar, clinopyroxene, biotite and opaque oxide. Nepheline is most abundant in the groundmass as anhedral crystals, smaller than 0.5mm across.

(76)

Sample No. 3US36

Locality : Olon-Ovoot

Rock name : Quartz vein

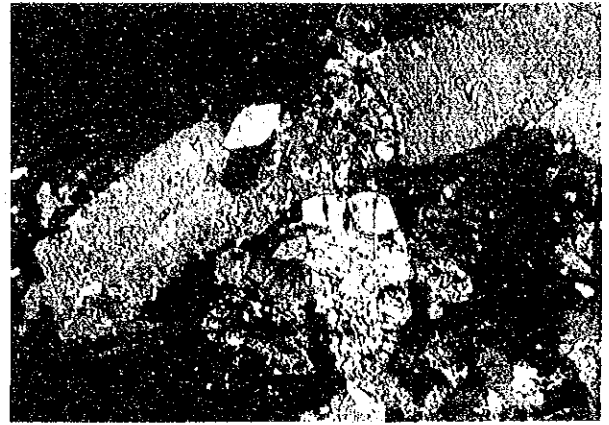
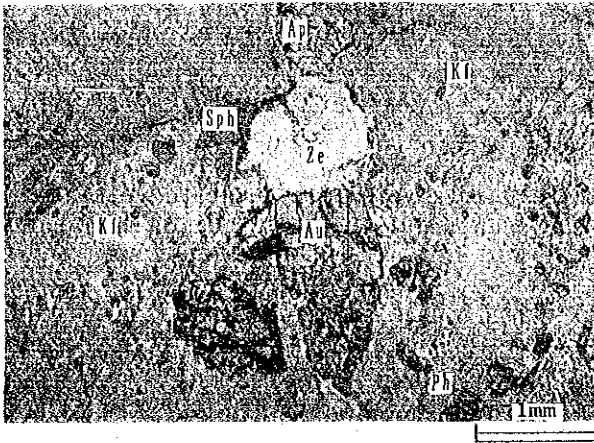
Observation note :

This specimen is pale brownish white quartz vein with calcite and hematite veinlets. It is made up of quartz subgrain which shows an undulatory extinction and sutured structure.

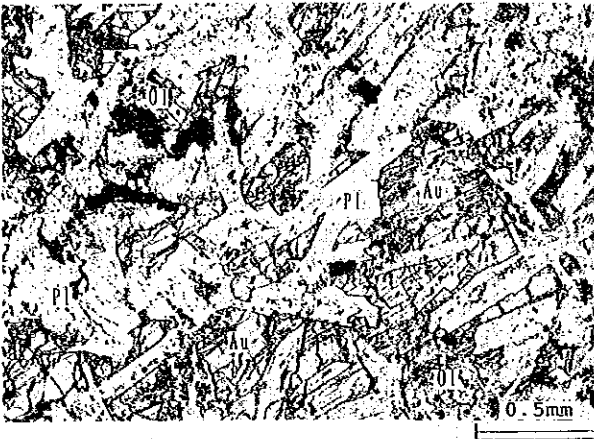
Plane polarized light

Crossed polarized light

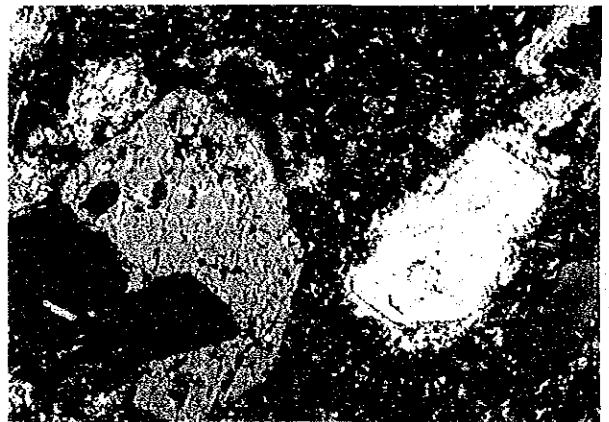
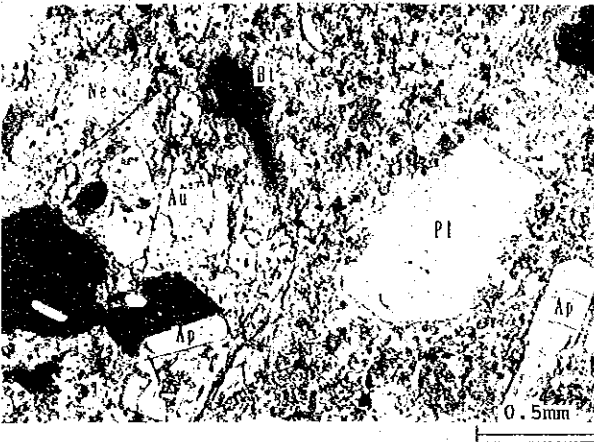
(73)



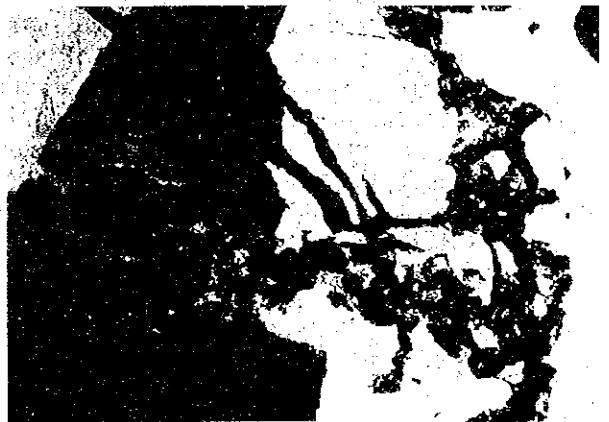
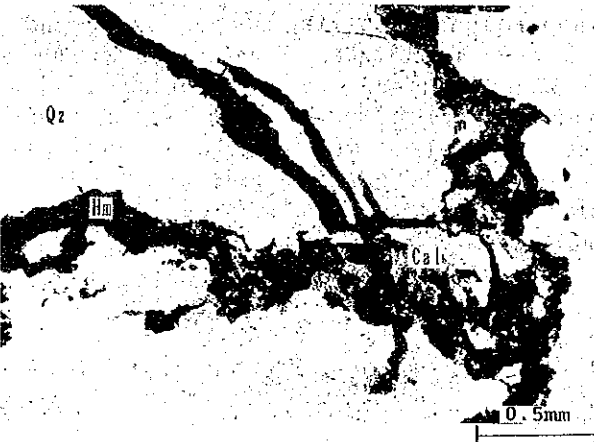
(74)



(75)



(76)



(77)

Sample No. 3US40
Locality : Olon-Ovoot
Rock name : Quartz vein
Observation note :

This specimen is pale brownish white quartz vein with hematite veinlets. It is made up of quartz subgrain which shows an undulatory extinction and sutured structure.

(78)

Sample No. : 3US52
Locality : Olon-Ovoot
Rock name : Meta-dolerite
Observation note :

This specimen is dark greenish gray meta-dolerite. It consists primarily of plagioclase, mafic mineral and opaque oxide, showing an ophitic texture. Plagioclase occurs as long prismatic crystals, 0.5-2mm in length, now largely replaced by chlorite and epidote. Mafic minerals, probably pyroxene or hornblende, are wholly changed into chlorite, actinolite and epidote. This rock is injected by epidote veinlet.

(79)

Sample No. : 3US83
Locality : Bayan-Hoshoo
Rock name : Apatite-biotite rock
Observation note :

This specimen is brownish black, fine to medium-grained apatite-biotite rock with small cavities. It shows a banded structure due to the difference in grain size. The photomicrograph is taken from coarse-grained band. Biotite, up to 5mm in length, is randomly oriented, showing a decussate texture. Apatite is anhedral granular crystal, up to 0.5mm across, showing a granoblastic texture. An apatite veinlet is also recognized in this rock. Small amount of fluorite and carbonate mineral are present.

(80)

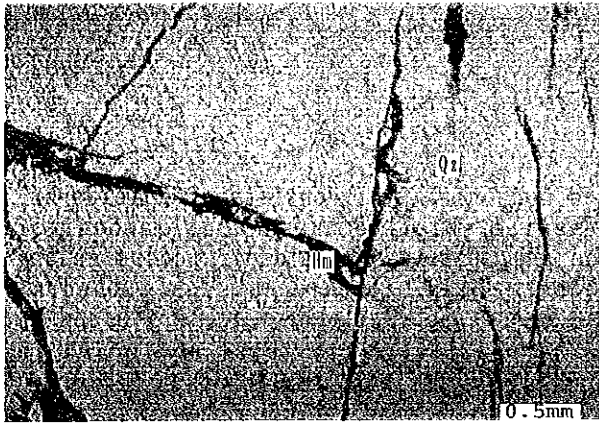
Sample No. : 3US101
Locality : Bayan-Hoshoo
Rock name : Monzonite
Observation note :

This specimen is gray, medium-grained monzonite. It consists of plagioclase (andesine-oligoclase), K-feldspar, clinopyroxene, biotite, opaque oxide and apatite with a small amount of sphene and green hornblende. Plagioclase is subhedral crystal, up to 5mm, distinctly zoned and mantled by K-feldspar. K-feldspar occurs mostly as anhedral granular crystals, smaller than 1mm, clouded by hematite inclusions. Clinopyroxene, probably sodian augite, occurs as euhedral to subhedral crystals, up to 2mm in length, giving a pale green color. Biotite (or phlogopite) gives a pleochroism from very pale yellow to pale brown. Apatite is rather abundant, up to 2mm in length.

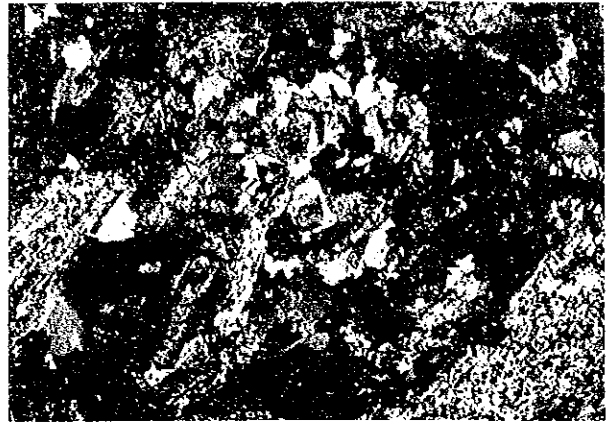
Plane polarized light

Crossed polarized light

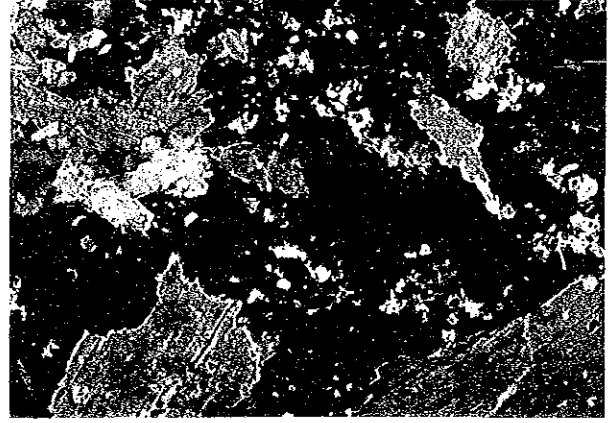
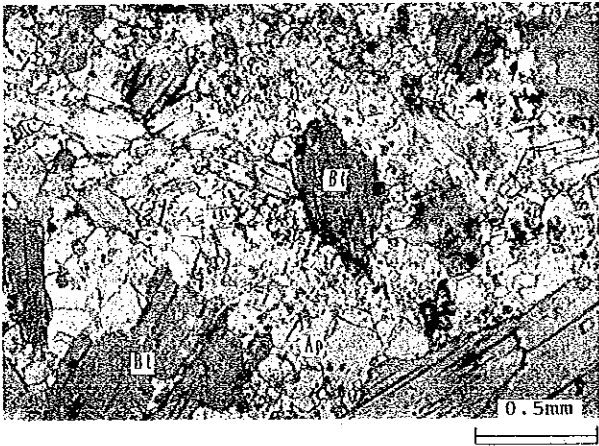
(77)



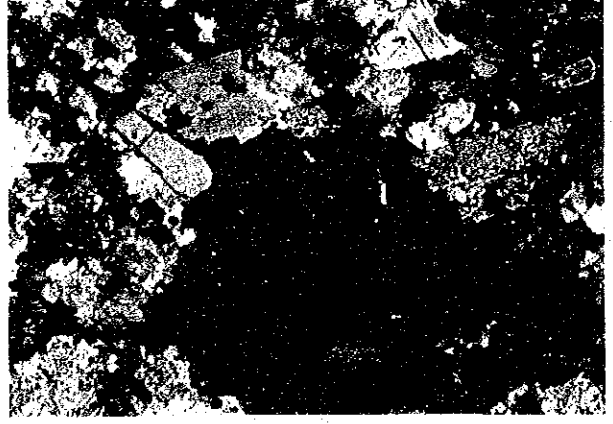
(78)



(79)



(80)



(81)

Sample No. : 3US104
Locality : Bayan-Hoshoo
Rock name : Monzonite
Observation note :

This specimen is gray, fine-grained monzonite. It consists of K-feldspar, (orthoclase), plagioclase(oligoclase), augite, biotite and a small amount of quartz, green hornblende, opaque oxide and apatite. K-feldspar occurs as anhedral granular crystals, smaller than 5mm. Plagioclase occurs as subhedral crystal, about 1mm in length. Augite occurs as small crystals, 0.2-0.5mm in length. Biotite(or phlogopite) occurs as poikilitic crystals, up to 2mm in length. Quartz occurs as anhedral interstitial crystals, smaller than 0.2mm.

(82)

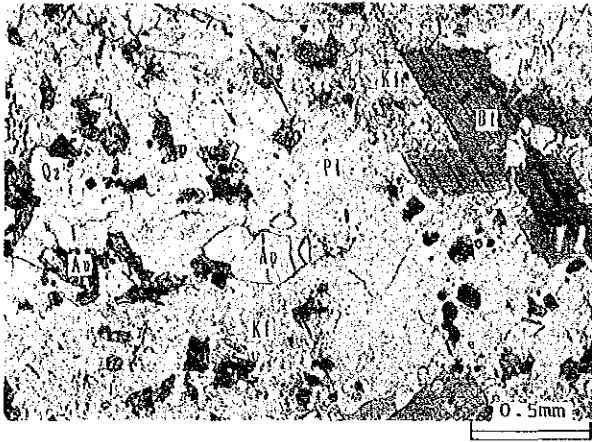
Sample No. : 3UY5
Locality : Tsogt-Ovoo
Rock name : Granite
Observation note:

This specimen is pale reddish brown, fine-grained granite showing a micrographic texture. It consists of plagioclase(oligoclase), K-feldspar (orthoclase-micropertthite), quartz, biotite, green hornblende and a small amount of opaque oxide and apatite. Plagioclase occurs as euhedral prismatic crystals, 0.5-3mm in length, often mantled by K-feldspar and highly saussuritized. K-feldspar occurs usually as subhedral to anhedral crystals, often intergrown with quartz, showing a micrographic texture. Biotite and green hornblende, both 0.2-3mm in length, are mostly chloritized.

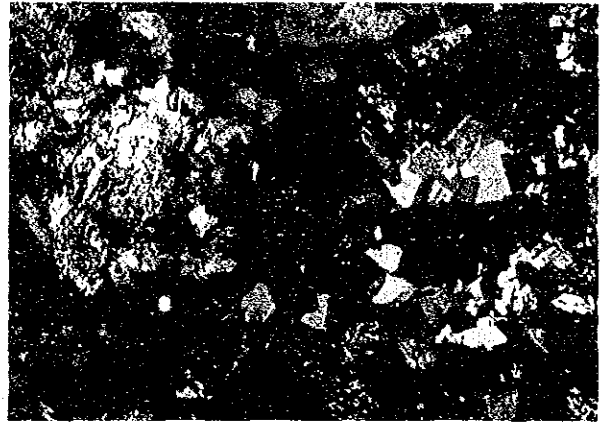
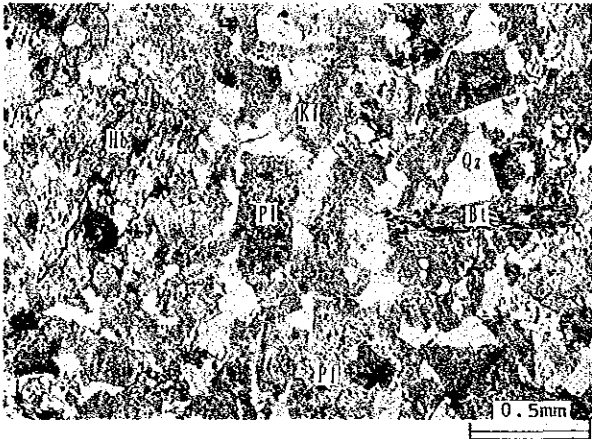
Plane polarized light

Crossed polarized light

(81)



(82)



A p p e n d i x 7

Microscopic Observations and Photomicrographs (Polished Section)

