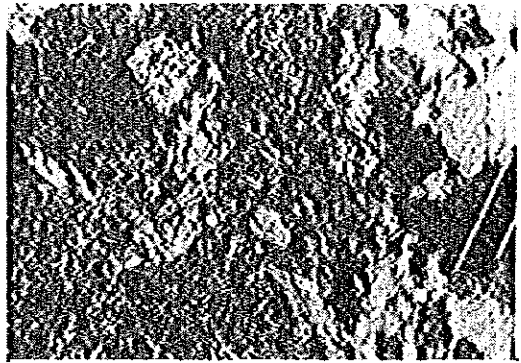


Sample No. : a-77
Rock name : Skarnized porphyrite
Location : Agadir

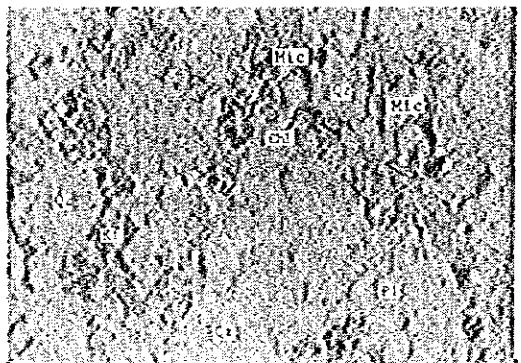
(open nicol)

0 0.5mm



(crossed nicols)

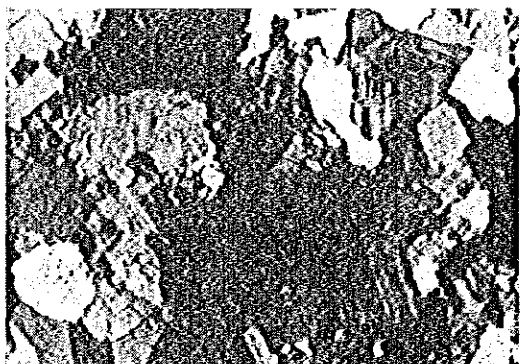
0 0.5mm



Sample No. : a-131
Rock name : Aplite
Location : Ikissane
Texture : Aplitic, granular

(open nicol)

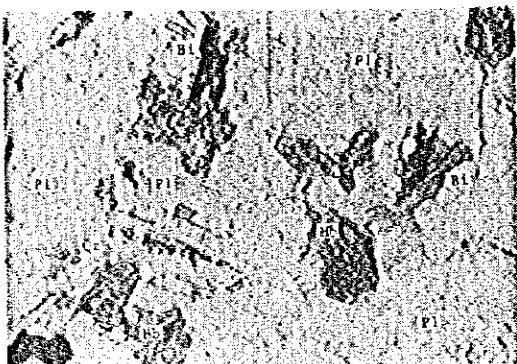
0 0.5mm



(crossed nicols)

0 0.5mm

Sample No. : a-136
Rock name : Granodiorite
Location : Ikissane



(open nicol)

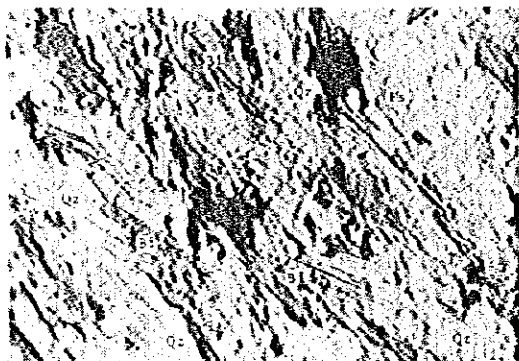
0 0.5mm



(crossed nicols)

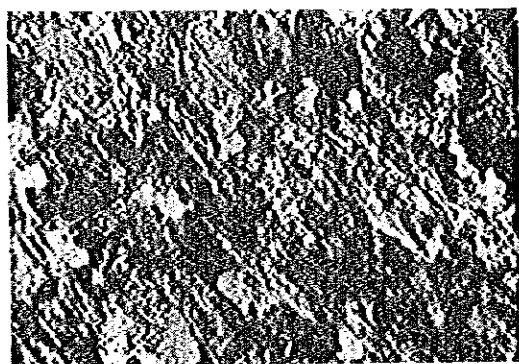
0 0.5mm

Sample No. : a-138
Rock name : Biotite schist
Location : Ikissane
Texture : Banding



(open nicol)

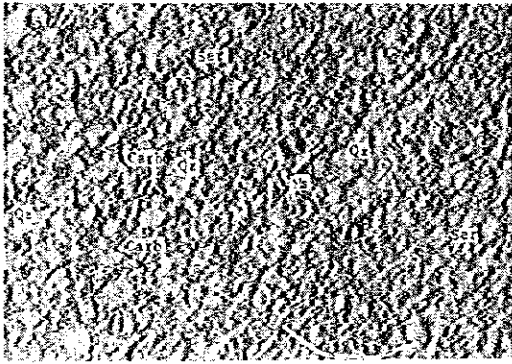
0 0.5mm



(crossed nicols)

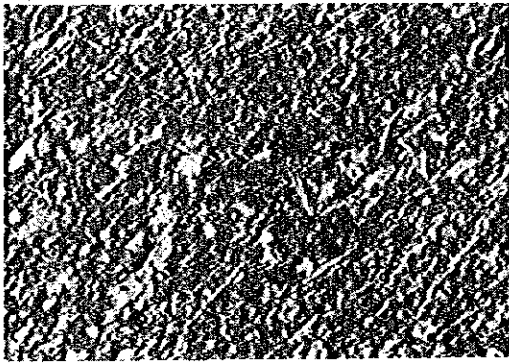
0 0.5mm

Sample No. : a-143
Rock name : Psummitic schist
Location : Igherm



(open nicol)

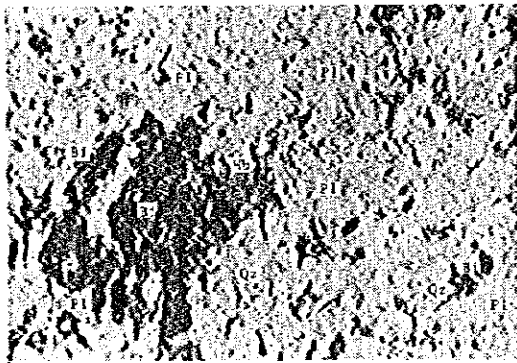
0 0.5mm



(crossed nicols)

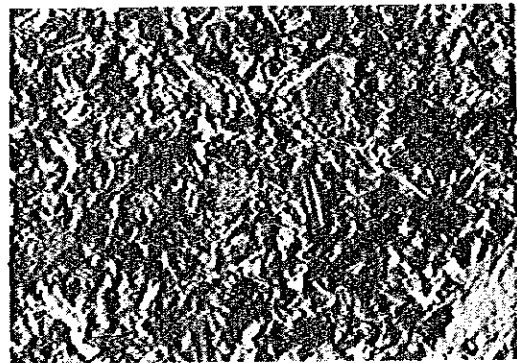
0 0.5mm

Sample No. : a-187
Rock name : Porphyrite
Location : Tawyalt
Texture : Porphyritic



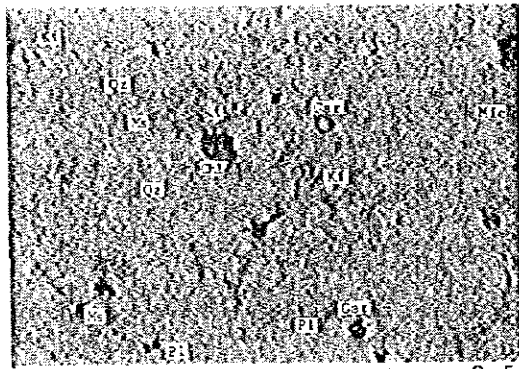
(open nicol)

0 0.5mm



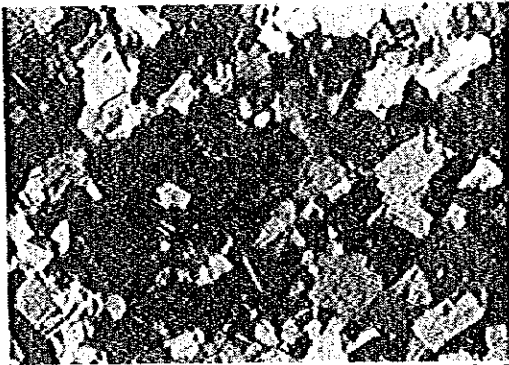
(crossed nicols)

0 0.5mm

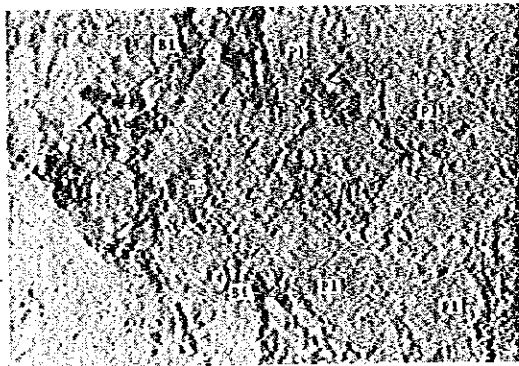


Sample No. : S-6
Rock name : Aplite
Location : Agadir
Texture : Aplitic, granular

(open nicol)

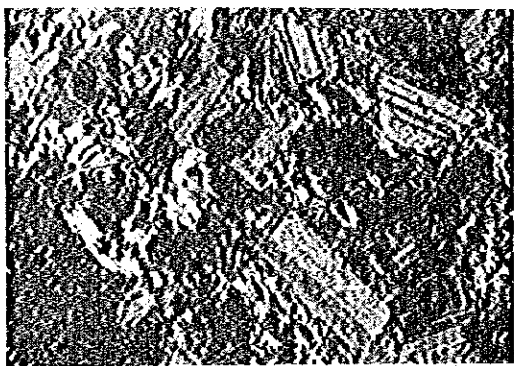


(crossed nicols)

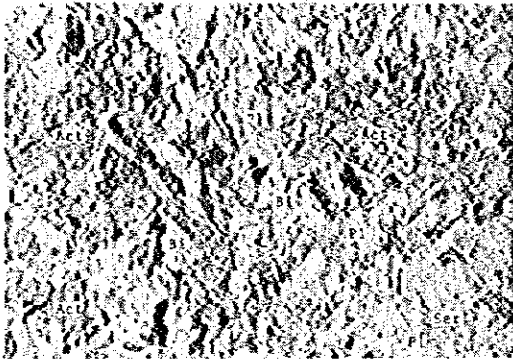


Sample No. : S-35
Rock name : Altered porphyrite
Location : Agadir

(open nicol)

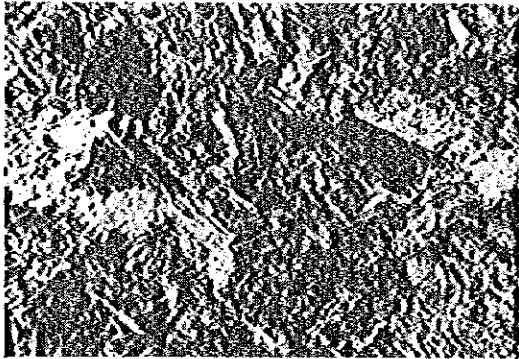
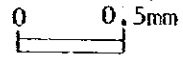


(crossed nicols)

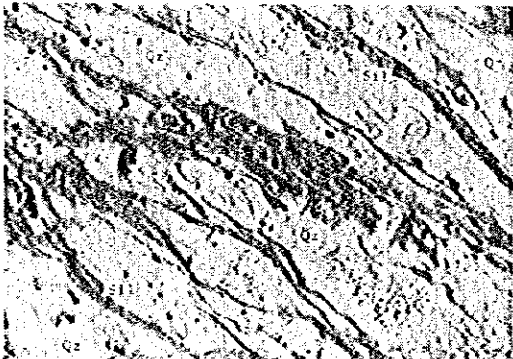
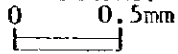


Sample No. : S-38
Rock name : Porphyrite
Location : Agadir

(open nicol)

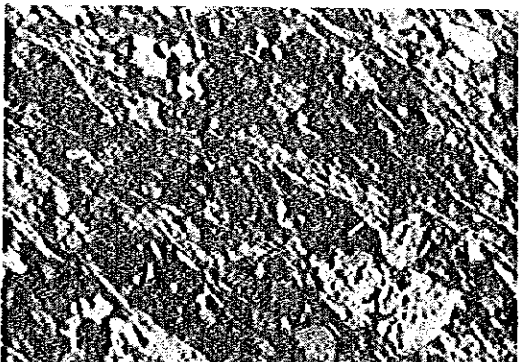
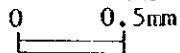


(crossed nicols)

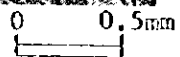


Sample No. : S-58
Rock name : Biotite-silimanite schist
Location : Mauass
Texture : Banding

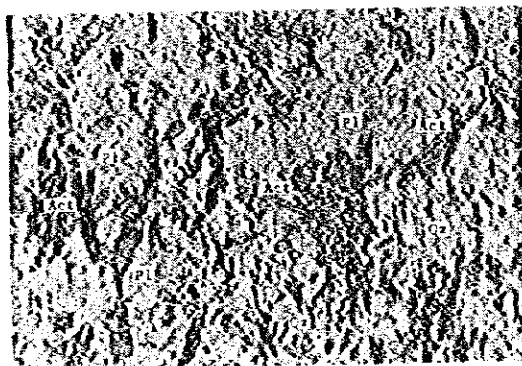
(open nicol)



(crossed nicols)

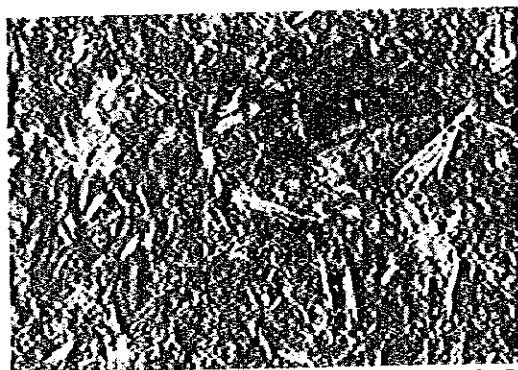


Sample No. : S-62
Rock name : Altered tuff (?)
Location : Agadir



(open nicol)

0 0.5mm



(crossed nicols)

0 0.5mm

Sample No. : S-63
Rock name : Granophyre
Location : Agadir
Texture : Micrographic intergrowths



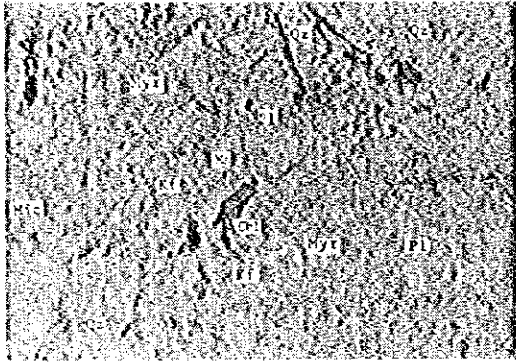
(open nicol)

0 0.5mm



(crossed nicols)

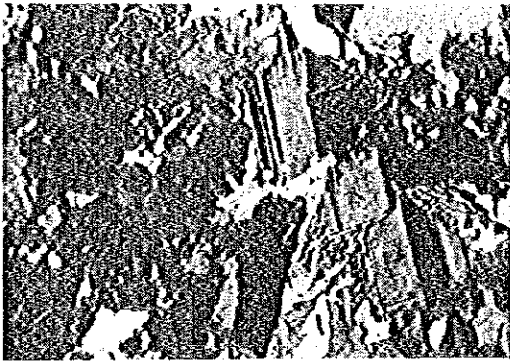
0 0.5mm



Sample No. : W-1
Rock name : Granophyre
Location : Agadir
Texture : Micrographic intergrowths

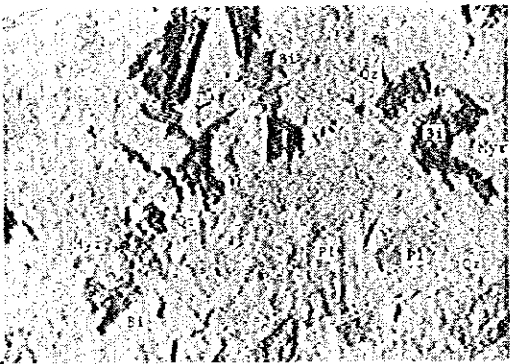
(open nicol)

0 0.5mm



(crossed nicols)

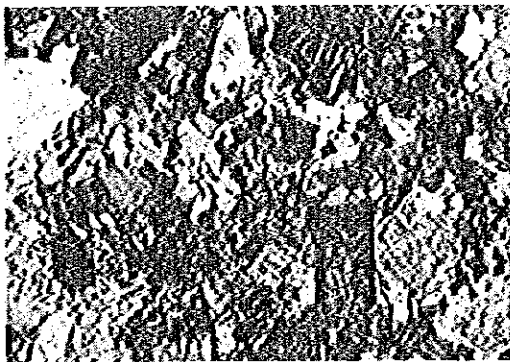
0 0.5mm



Sample No. : W-2
Rock name : Fine grained biotite granite
Location : Agadir
Texture : Granular

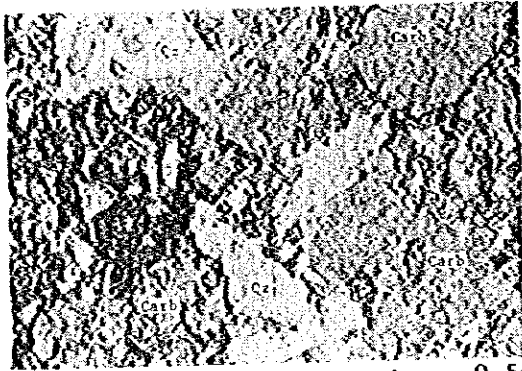
(open nicol)

0 0.5mm



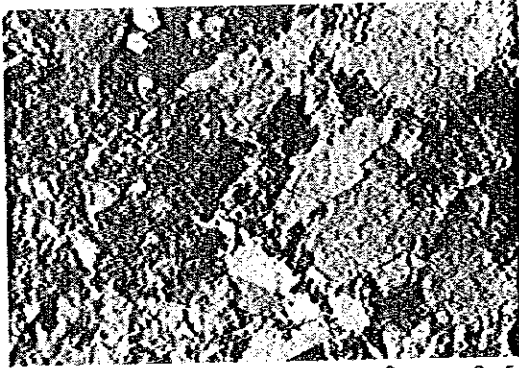
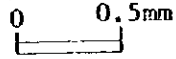
(crossed nicols)

0 0.5mm

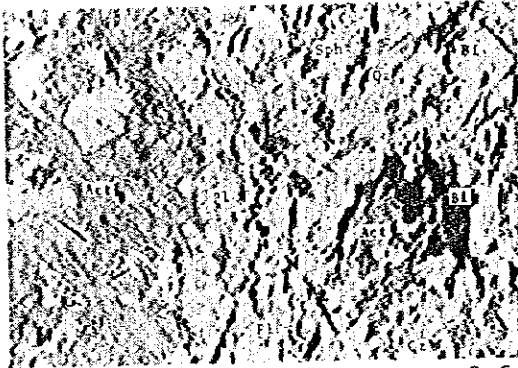
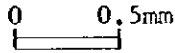


Sample No. : W-3
Rock name : Carbonate rock
Location : Agadir

(open nicol)

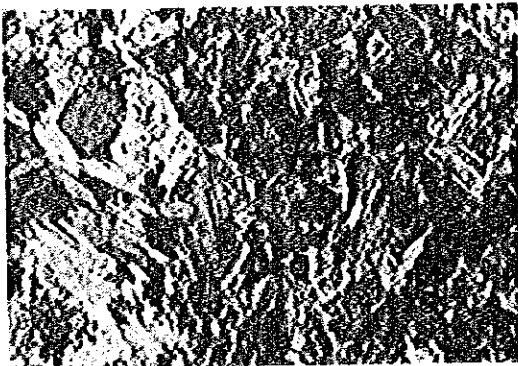
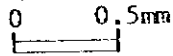


(crossed nicols)

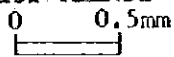


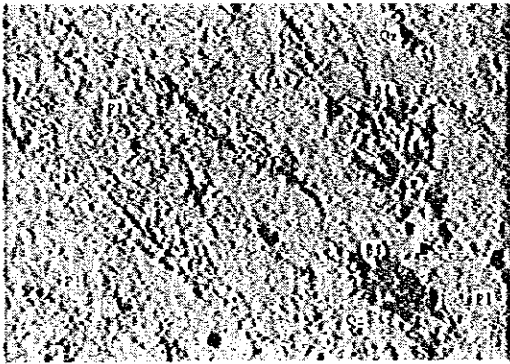
Sample No. : W-4
Rock name : Porphyrite
Location : Tiwaline
Texture : Porphyritic

(open nicol)



(crossed nicols)

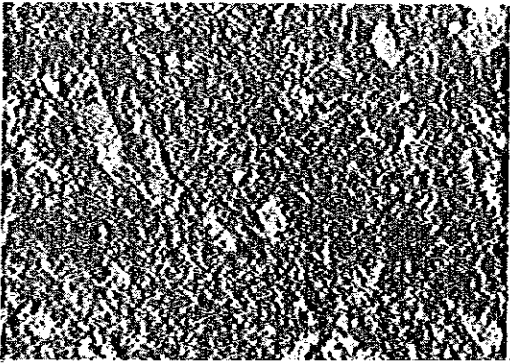




Sample No. : W-7
Rock name : Biotite schist
Location : Tiwaline
Texture : Blastoporphyritic

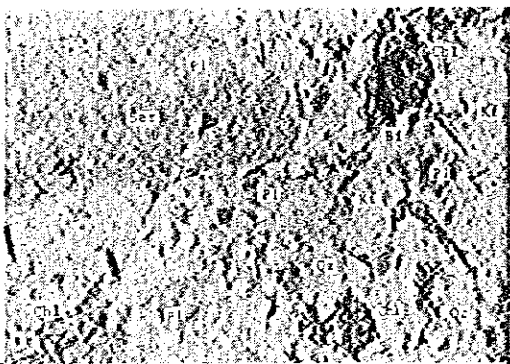
(open nicol)

0 0.5mm



(crossed nicols)

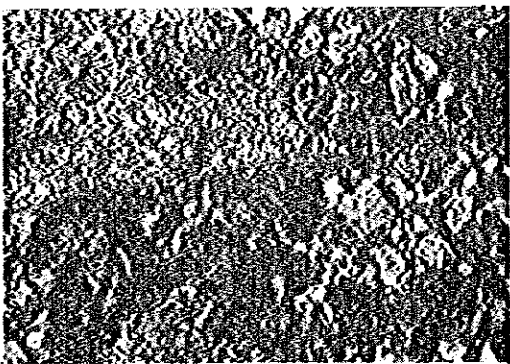
0 0.5mm



Sample No. : W-21
Rock name : Granodiorite porphyry
Location : Agadir
Texture : Porphyritic

(open nicol)

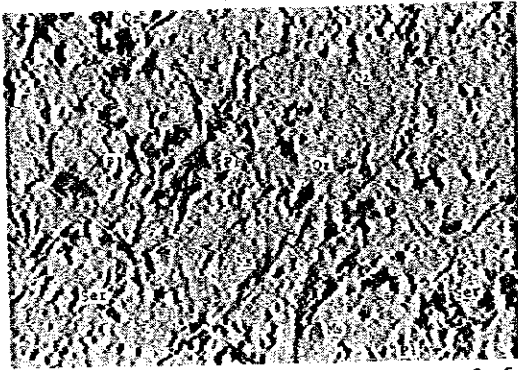
0 0.5mm



(crossed nicols)

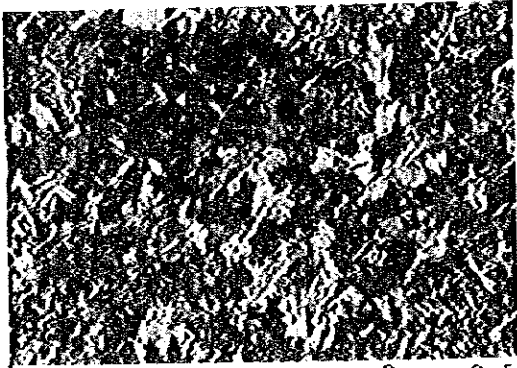
0 0.5mm

Sample No. : W-34
Rock name : Qz diorite porphyry
Location : Taddart
Texture : Porphyritic



(open nicol)

0 0.5mm



(crossed nicols)

0 0.5mm

資料 I - 3 鈷石研磨片顯微鏡觀察結果一覽表

| No. | Sample No. | Location | Ore Name | Sphalerite | Galena | Chalcopyrite | Chalcoite | Covellite | Malachite | Chrysocolla | Molybdenite | Pyrite | Arsenopyrite | Pyrrhotite | Magnetite | Hematite | Limonite | Native bismuth | Tetradymite | Tetrahedrite | Marcasite |
|-----|------------|-----------------|--------------------------------|------------|--------|--------------|-----------|-----------|-----------|-------------|-------------|--------|--------------|------------|-----------|----------|----------|----------------|-------------|--------------|-----------|
| 1 | a133 | Ikissane | Chalcopyrite, Molybdenite ore | | | △ | | | | | △ | | | | | | | | | | |
| 2 | a135 | Ikissane | Chalcopyrite ore | | | △ | | | | | | △ | | | | | | | | | |
| 3 | a162 | Iguidi | Chalcopyrite ore | | | ○ | | △ | | △ | | | | | | | | | | | |
| 4 | a164 | Adabdi | Chalcopyrite, Pyrrhotite ore | | | △ | | | | | | | | ⊙ | | | | | | | |
| 5 | a176 | Taddart | Malachite, Chrysocolla ore | | | | | | △ | | | | | | | | | | | | |
| 6 | a185 | Taddart | Chalcopyrite ore | | | ⊙ | | △ | | | | | | | | | | | | | |
| 7 | a190 | Iguidi | Hematite ore | | | | | | | | | △ | | | ⊙ | | | | | | |
| 8 | B8-8 | Agadir West | Chalcopyrite, Molybdenite ore | | | △ | | | | | | △ | | | | | | | | | |
| 9 | B9-8 | Agadir West | Chalcopyrite, Molybdenite ore | | | △ | | | | | | △ | | | | | | | | | |
| 10 | K66 | Taddart | Malachite, Chrysocolla ore | | | | | | | | | | | | | | | | | | |
| 11 | N6-2 | Agadir | Non ore | | | | | | | | | | | | | | | | | | |
| 12 | N15-2 | Agadir | Non ore | | | | | | | | | | | | | | | | | | |
| 13 | S33 | Agadir | Chalcopyrite, Pyrite ore | | | △ | | | | | | ○ | | | | | | | | | △ |
| 14 | S46 | Agadir N11 line | Tetradymite Native bismuth ore | | | | | | | | | | | | | | | | | | |
| 15 | S65 | Tizi-n-Izrakine | Chalcopyrite, Tetrahedrite ore | | | ⊙ | | | | | | △ | | | | | | | | | △ |
| 16 | S81 | Iguidi | Chalcopyrite, Pyrite ore | | | △ | | | | | | △ | | | | | | | | | |
| 17 | S82 | Iguidi | Chalcopyrite, Pyrite ore | | | △ | | | | | | △ | | | | | | | | | |
| 18 | S83 | Iguidi | Magnetite, Hematite ore | | | | | | | | | | | | ⊙ | | | | | | |
| 19 | W6 | Ikissane North | Chalcopyrite ore | | | △ | | | | | | | | | | | | | | | △ |
| 20 | W10 | Agadir N15 line | Chalcopyrite, Pyrite ore | | | △ | | | | | | | | | | | | | | | ○ |
| 21 | W33 | Taddart | Chalcopyrite, Malachite ore | | | △ | | | | | | △ | | | | | | | | | △ |

⊙ abundant ⊙ more ○ common △ less • scarce

al33

Molybdenite bearing quartz vein

The constituents of ore minerals are a small amount of molybdenite, pyrite and chalcocopyrite, and a trace amount of covellite. Molybdenite occurs at places in flaky crystals.

Pyrite is disseminated among the vein in xenomorphic crystals.

Chalcocopyrite is disseminated among the vein and its periphery partly alters to covellite.

al35

Molybdenite bearing quartz vein

The constituents of ore minerals are a small amount of chalcocopyrite, limonite and pyrite, and a trace amount of sphalerite.

Chalcocopyrite is disseminated among the vein and its

periphery is replaced by limonite.

Sphalerite encloses dots of chalcocopyrite.

al62

Chalcocopyrite bearing quartz vein

The constituents of ore minerals are common chalcocopyrite and common limonite and a small amount of covellite and chrysocolla.

Chalcocopyrite is found in larger crystals than the others and its periphery is replaced by limonite and covellite.

Chrysocolla is interstitial to gangue minerals.

al64

Molybdenite bearing quartz vein

The constituents of ore minerals are abundant pyrrhotite and a small amount of limonite and chalcocopyrite.

Pyrrhotite forms the mass with the concentric banded texture resulting from the moderate alteration.

Chalcocopyrite is in contact with pyrrhotite and/or interstitial to gangue minerals.

Limonite is interstitial to pyrrhotite.

al76

Malachite bearing quartz vein

The constituents of ore minerals are a small amount of chrysocolla, malachite and limonite. All of them are interstitial to gangue minerals.

al85

Chalcocopyrite-pyrite bearing quartz vein

The constituents of ore minerals are a large amount of chalcocopyrite and limonite, and a small amount of covellite.

Chalcocopyrite is found in larger crystals than the others and its periphery and fracture are replaced by the others.

al90

Chalcocopyrite bearing quartz vein

The constituents of ore minerals are abundant hematite and a small amount of pyrite and limonite. Hematite is found in

idiomorphic (needle-like) crystals and forms the aggregate with colloform texture.
 Pyrite is partly replaced by limonite.

BB-8
 Garnet skarn
 The constituents of ore minerals are a small amount of chalcopyrite and pyrite, and a trace amount of molybdenite, limonite and covellite.
 Chalcopyrite is interstitial to gangue minerals and its periphery is partly replaced by limonite and covellite.
 Molybdenite is found in flaky crystals and coexists with chalcopyrite.
 Pyrite is disseminated among the vein in xenomorphic to idiomorphic crystals.

B9-8
 Garnet skarn
 The constituents of ore minerals are a small amount of chalcopyrite, pyrite, limonite and chalcocite, and a trace amount of molybdenite.
 Chalcopyrite is interstitial to gangue minerals and its periphery is replaced by chalcocite and limonite. Molybdenite is found in a few granular crystals.
 Pyrite is disseminated among the vein in idiomorphic crystals.

K66
 Chalcopyrite-malachite bearing quartz vein
 The constituents of ore minerals are a small amount of malachite, chrysocolla and limonite, and a trace amount of chalcopyrite and pyrite.
 Malachite forms large aggregates and/or fills fractures of gangue minerals. The occurrence of chrysocolla is the same as that of malachite.
 Chalcopyrite is found in a few small crystals.
 The occurrence of pyrite is the same as that of chalcopyrite.

N6-2
 Molybdenite bearing quartz vein
 The constituent of ore mineral is a trace amount of pyrite.
 Pyrite is disseminated among the vein in xenomorphic to idiomorphic crystals.

N15-2
 Garnet skarn
 No ore minerals are found.

S33
 Chalcopyrite-pyrite bearing skarn
 The constituents of ore minerals are common pyrite and a small amount of chalcopyrite and marcasite. Pyrite is disseminated among the vein in xenomorphic crystals and is partly replaced by marcasite. Chalcopyrite is disseminated among the vein and

rarely coexists with pyrite.

S46

Epidote skarn

The constituents of ore minerals are a trace amount of native bismuth, tetradymite, pyrite and chalcopyrite. Tetradymite is about 100 micrometers in diameter and coexists with native bismuth. Pyrite and chalcopyrite are found in a few small crystals.

S65

Chalcopyrite-pyrite bearing garnet skarn

The constituents of ore minerals are abundant chalcopyrite and a small amount of tetrahedrite(?), pyrite, arsenopyrite and limonite.

Chalcopyrite is found in larger crystals than the others. Tetrahedrite(?) occurs in contact with chalcopyrite and it is not evident that this mineral contains no tennantite component (EPMA analysis is necessary to identify this mineral as pure tetrahedrite). Arsenopyrite coexists with tetrahedrite(?) and looks to be deposited at the latest stage of the mineralization.

S81

Chalcopyrite-malachite bearing quartz vein

The constituents of ore minerals are a small amount of chalcopyrite and pyrite. Large crystals and small disseminated

crystals of chalcopyrite occur at places. Pyrite occurs in idiomorphic crystals and often in contact with chalcopyrite.

S82

Chalcopyrite-malachite bearing quartz vein

The constituents of ore minerals are a small amount of chalcopyrite and pyrite. Chalcopyrite is interstitial to gangue minerals. Pyrite is disseminated among the vein in idiomorphic crystals.

S83

Chalcopyrite-malachite bearing quartz vein

The constituents of ore minerals are a large amount of magnetite and a small amount of hematite.

Magnetite occurs in granular crystals, and sometimes forms aggregate and is sometimes disseminated among the vein. Hematite is found in needle-like crystals and is either interstitial to gangue minerals or in contact with magnetite.

W6

Chalcopyrite-molybdenite bearing quartz vein

The constituents of ore minerals are a small amount of chalcopyrite and limonite.

Chalcopyrite is disseminated among the vein and its periphery is replaced by limonite.

W10

Chalcopyrite-pyrrhotite bearing skarn

The constituents of ore minerals are common pyrite and a small amount of chalcopyrite.

Pyrite is found in soft xenomorphic crystals with concentric banded texture resulting from alteration. Chalcopyrite coexists with pyrite.

W33

Malachite bearing quartz vein

The constituents of ore minerals are a small amount of chalcopyrite, malachite, chrysocolla, limonite, pyrite, chalcocite and covellite.

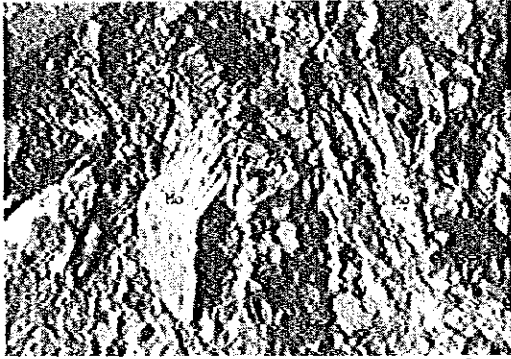
Chalcopyrite is disseminated among the vein and its periphery is replaced by chalcocite and limonite. Covellite is enclosed by limonite.

Malachite and chrysocolla are interstitial to gangue minerals.

資料 I - 4 鉍石研磨片顯微鏡写真

Abbreviation

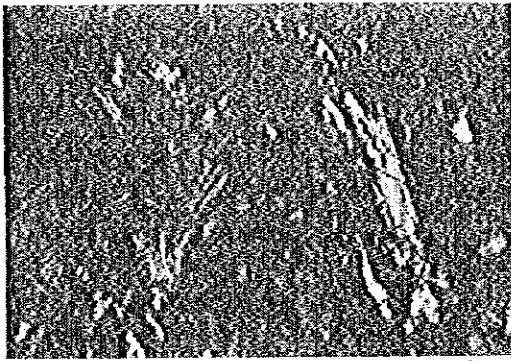
| | | |
|------|----------------|--|
| Sp | Sphalerite | ZnS |
| Gn | Galena | PbS |
| Cp | Chalcopyrite | CuFeS ₂ |
| Cc | Chalcocite | Cu ₂ S |
| Cv | Covellite | CuS |
| Chr | Chrysocolla | CuSiO ₃ · 2H ₂ O |
| Mala | Malachite | CuCO ₃ · Cu(OH) ₂ |
| Mo | Molybdenite | MoS ₂ |
| Py | Pyrite | FeS ₂ |
| Asp | Arsenopyrite | FeAsS |
| Po | Pyrrhotite | Fe _{1-x} S |
| Mag | Magnetite | Fe ₃ O ₄ |
| Hem | Hematite | Fe ₂ O ₃ |
| Lim | Limonite | Fe ₂ O ₃ · nH ₂ O |
| Bi | Native bismuth | Bi |
| Ty | Tetradymite | Bi ₂ (TeS) ₃ |
| Td | Tetrahedrite | (CuFeZn) ₁₂ Sb ₄ S ₁₃ |



Sample No. : a-133
Ore name : Chalcopyrite, Molybdenite ore
Location : Ikissane

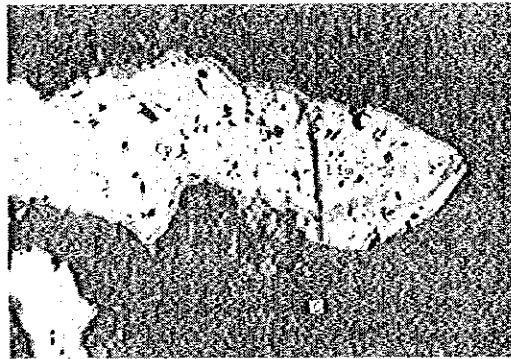
(open nicol)

0 0.1mm



(crossed nicols)

0 0.1mm



Sample No. : a-135
Ore name : Chalcopyrite ore
Location : Ikissane

(open nicol)

0 0.2mm



Sample No. : a-162
Ore name : Chalcopyrite ore
Location : Iguidi

(open nicols)

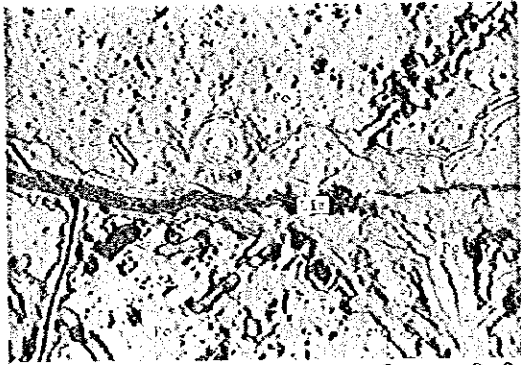
0 0.2mm



Sample No. : a-164
Ore name : Chalcopyrite, Pyrrhotite ore
Location : Adabdi

(open nicol)

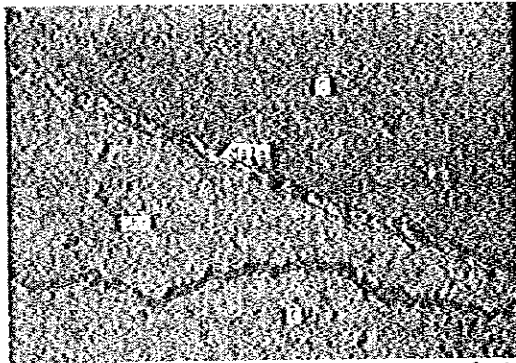
0 0.2mm



Sample No. : a-164
Ore name : Chalcopyrite, Pyrrhotite ore
Location : Adabdi

(open nicol)

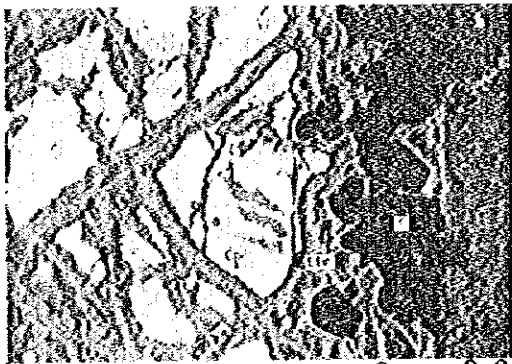
0 0.2mm



Sample No. : a-176
Ore name : Malachite, Chrysocolla ore
Location : Taddart

(open nicol)

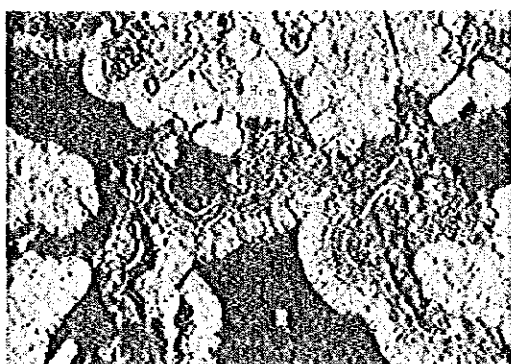
0 0.1mm



Sample No. : a-185
Ore name : Chalcopyrite ore
Location : Taddart

(open nicol)

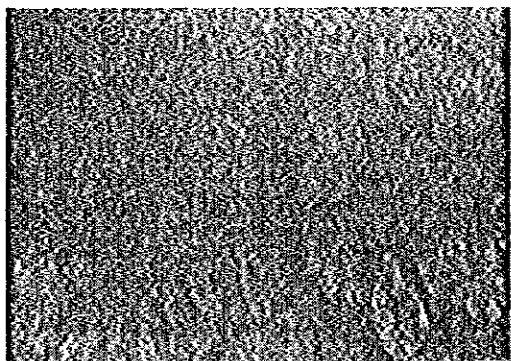
0 0.2mm



Sample No. : a-190
Ore name : Hematite ore
Location : Iguidi

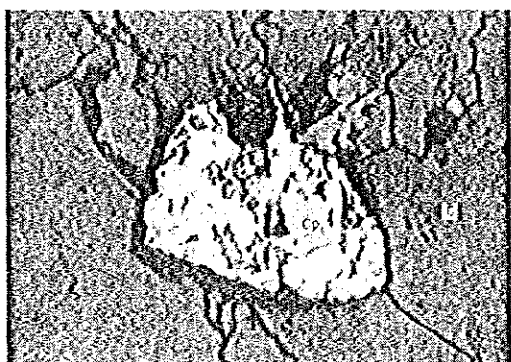
(open nicol)

0 0.1mm



(crossed nicols)

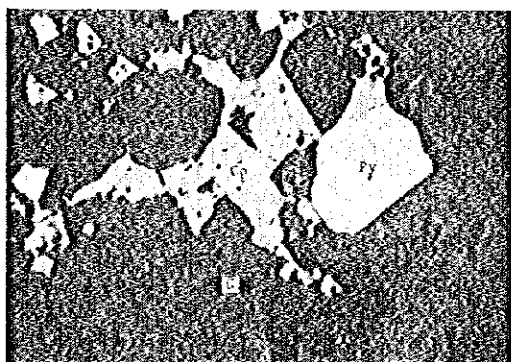
0 0.1mm



Sample No. : B8-8
Ore name : Chalcopyrite, Molybdenite ore
Location : Agadir

(open nicol)

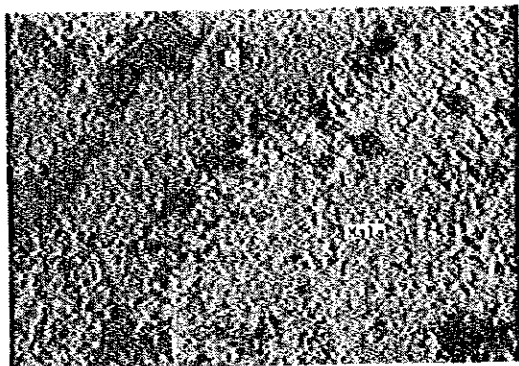
0 0.1mm



Sample No. : B9-8
Ore name : Chalcopyrite, Molybdenite ore
Location : Agadir

(open nicols)

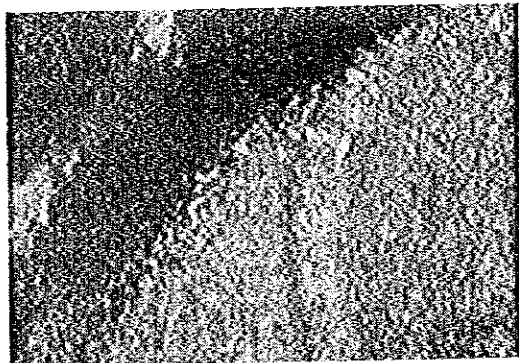
0 0.1mm



Sample No. : K-66
Ore name : Malachite, Chrysocolla ore
Location : Taddart

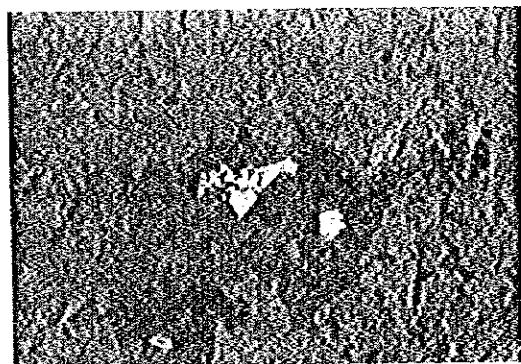
(open nicol)

0 0.1mm



(crossed nicols)

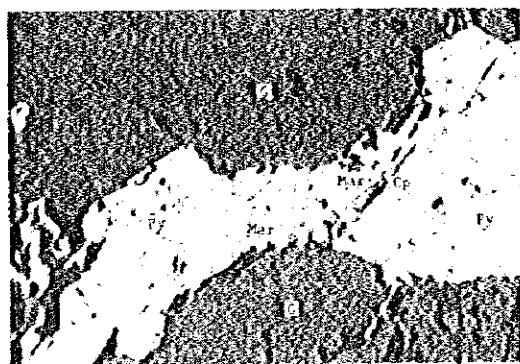
0 0.1mm



Sample No. : N6-2
Ore name : Non ore
Location : Agadir

(open nicol)

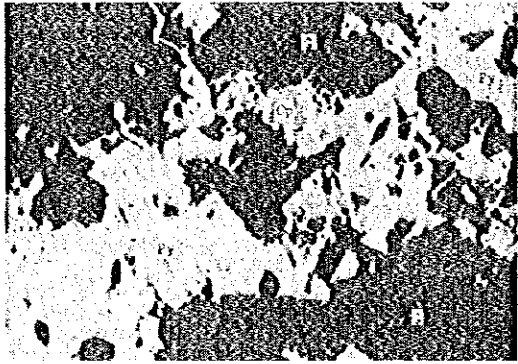
0 0.1mm



Sample No. : S-33 (N5-2)
Ore name : Chalcopyrite, Pyrite ore
Location : Agadir

(open nicols)

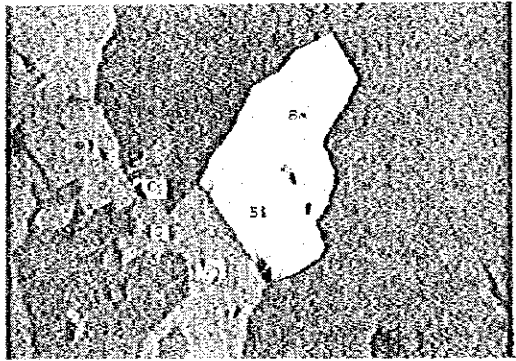
0 0.1mm



Sample No. : S-33
Ore name : Chalcopyrite, Pyrite ore
Location : Agadir

(open nicol)

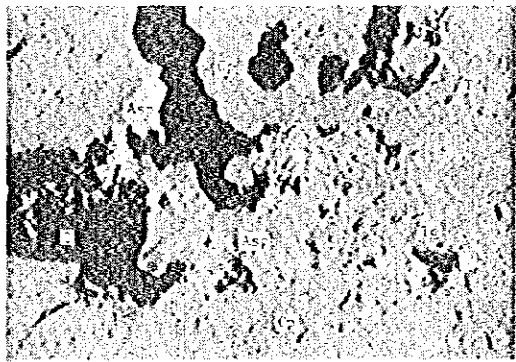
0 0.1mm



Sample No. : S-46
Ore name : Tetradymite, Native bismuth ore
Location : Agadir N11 line

(open nicol)

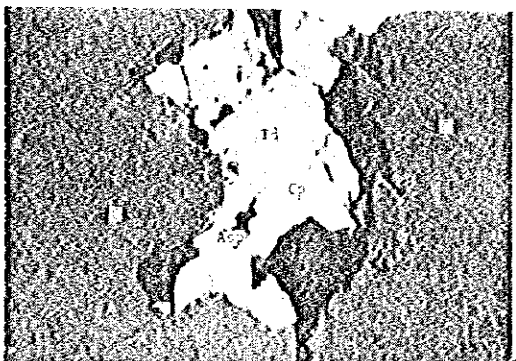
0 0.04mm



Sample No. : S-65
Ore name : Chalcopyrite, Teteahedrite ore
Location : Tizi-n-Izrakine

(open nicol)

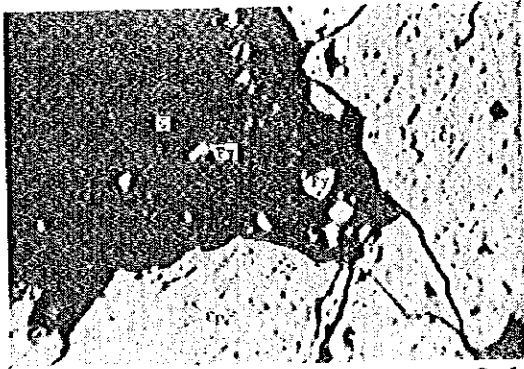
0 0.1mm



Sample No. : S-65
Ore name : Chalcopyrite, Tetrahedrite ore
Location : Tizi-n-Izrakine

(open nicol)

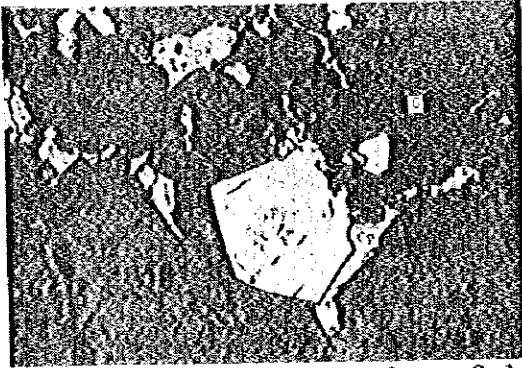
0 0.04mm



Sample No. : S-81
Ore name : Chalcopyrite, Pyrite ore
Location : Iguidi

(open nicol)

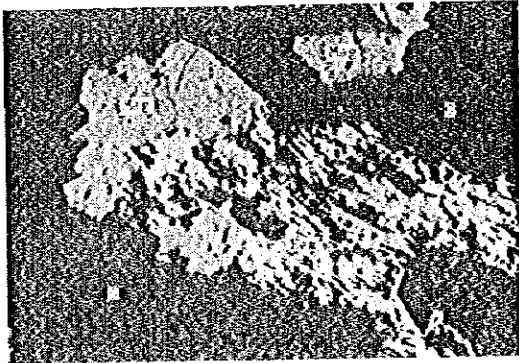
0 0.1mm



Sample No. : S-82
Ore name : Chalcopyrite, Pyrite ore
Location : Iguidi

(open nicols)

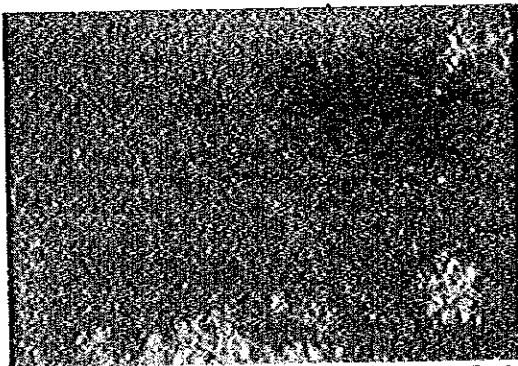
0 0.1mm



Sample No. : S-83
Ore name : Magnetite, Hematite ore
Location : Iguidi

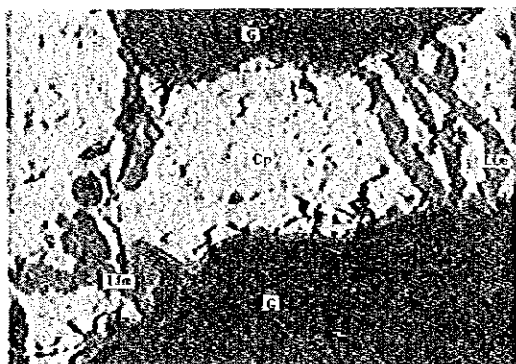
(open nicol)

0 0.1mm



(crossed nicols)

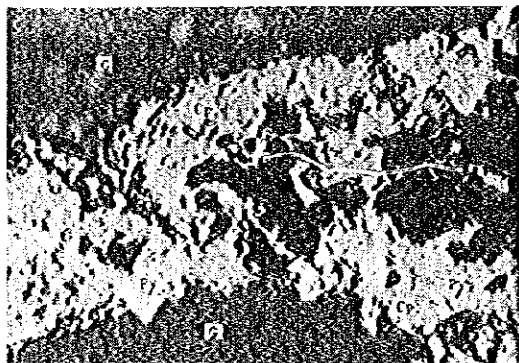
0 0.1mm



Sample No. : W-6
Ore name : Chalcopyrite ore
Location : Ikissane

(open nicol)

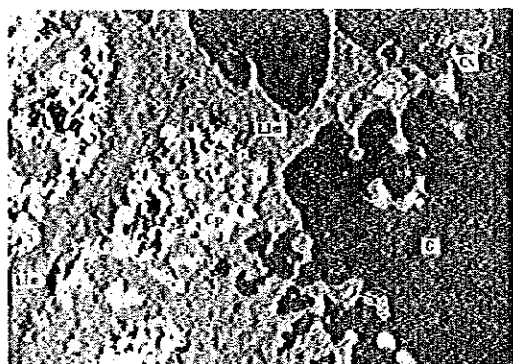
0 0.1mm
└──────────┘



Sample No. : W-10
Ore name : Chalcopyrite, Pyrite ore
Location : Agadir N15 line

(open nicols)

0 0.1mm
└──────────┘



Sample No. : W-33
Ore name : Chalcopyrite, Malachite ore
Location : Taddart

(open nicol)

0 0.2mm
└──────────┘

資料 I - 5 X線回折結果一覽表及びX線回折チャート

| No. | Sample No. | Location | Rock/Ore Name | Quartz | Plagioclase | Calcite | Ankerite-Dolomite | Hornblende | Diopside | Diaspore? | Garnet(Calderite) | Grossularite | Anatase Rutile | Chlorite | Sericite | Phlogopite | Chalcopyrite | Malachite | Azurite | Pyrite Marcasite | Pyrrhotite | Hematite | Goethite | |
|-----|------------|-----------------|-----------------------------------|--------|-------------|---------|-------------------|------------|----------|-----------|-------------------|--------------|----------------|----------|----------|------------|--------------|-----------|---------|------------------|------------|----------|----------|--|
| 1 | a133 | Ikissane | Diopside skarn vein | ◎ | | | | | ◎ | | | | | | | | | | | | | | | |
| 2 | a162 | Iguidi | Chalcopyrite Calcite vein | . | ◎ | | | | | | | | | | | | | | | | △ | . | | |
| 3 | a164 | Ikissane | Chalcopyrite Chlorite vein | . | ◎ | ◎ | | | | | | | | | | | | | | | | ○ | | |
| 4 | a190 | Iguidi | Mematite ore | △ | | △ | | | | | | | | | | | | | | | | | | |
| 5 | K60 | Taddart | Chalcopyrite Quartz Dolomite vein | ◎ | ○ | | ◎ | | | | | | | | | | | | | | | | | |
| 6 | K66 | Taddart | Malachite Quartz vein | ◎ | | | | | | | | | | | | | | △ | | | | | | |
| 7 | K69 | Taddart | Chalcopyrite Quartz vein | ◎ | | △ | | | | | | | | | | | | | | | | | | |
| 8 | K73 | Taddart | Chalcopyrite Quartz vein | ◎ | | | | | | | | | | | | | | | | | | | | |
| 9 | P2 | Iguidi | Chalcopyrite Quartz vein | ◎ | | | | | | | | | | | | | | | | | | | | |
| 10 | P7 | Iguidi | Chalcopyrite Quartz vein | ◎ | | | | | | | | | | | | | | | | | | | | |
| 11 | P11 | Iguidi | Chalcopyrite Quartz vein | ◎ | | | | | | | | | | | | | | | | | | | | |
| 12 | S33 | Agadir | Chalcopyrite Garnet skarn | △ | | △ | | | | | | | | | | | | | | | | | | |
| 13 | S46 | Agadir | Diopside Garnet skarn | ○ | | | | | ◎ | | | | | | | | | | | | | | | |
| 14 | S66 | Tizi-m-Izrakine | Chalcopyrite Malachite ore | | | | | | | | | | | | | | | | | | | | | |
| 15 | S81 | Iguidi | Chalcopyrite Quartz vein | ◎ | | | | | | | | | | | | | | | | | | | | |
| 16 | W13 | Agadir | Chalcopyrite Pyrrhotite ore | ◎ | | | | | | | | | | | | | | | | | | | | |
| 17 | W15 | Agadir | Chalcopyrite Pyrrhotite ore | ○ | | | | | | | | | | | | | | | | | | | | |
| 18 | W17 | Agadir | Chalcopyrite skarn | △ | | | | | | | | | | | | | | | | | | | | |
| 19 | W31 | Taddart | Chalcopyrite Quartz vein | ◎ | | | | | | | | | | | | | | | | | | | | |
| 20 | W37 | Taddart | Chalcopyrite Quartz vein | ◎ | △ | | | | | | | | | | | | | | | | | | | |

◎ abundant ◎ more ○ common △ less . scarce

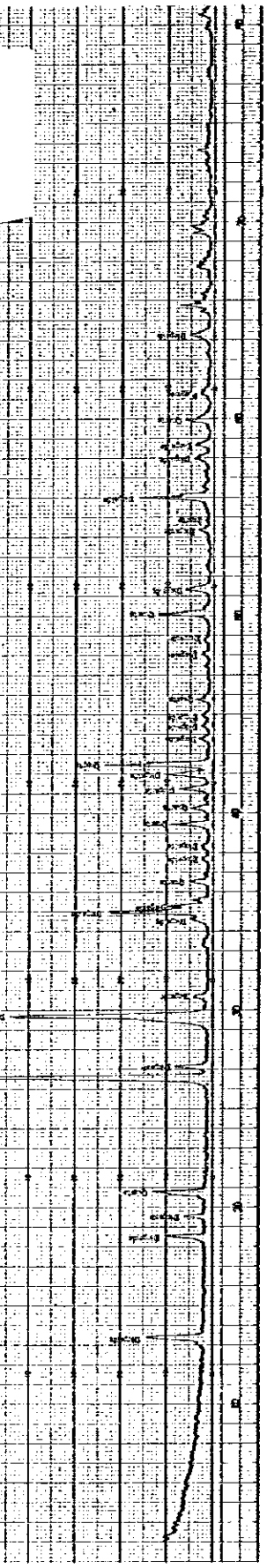
RD-100, CHART NO. 42-21

RD-100, CHART NO. 42-21

RD-100, CHART NO. 42-21

X-Ray Diffractometer

| | | |
|-------------|----------|----|
| Sample No. | 42-123 | Co |
| Target | | |
| Filter | | |
| Wavelength | 0.15 nm | |
| Slit | 0.15 mm | |
| Detector | 0.15 mm | |
| Scan Rate | 2000 CPS | |
| Time | 0.15 min | |
| Chart Speed | 4 mm/min | |
| Chart Range | 0.15 mm | |
| Resolution | 0.15 mm | |
| Detector | 0.15 mm | |
| Date | 50-10-7 | |



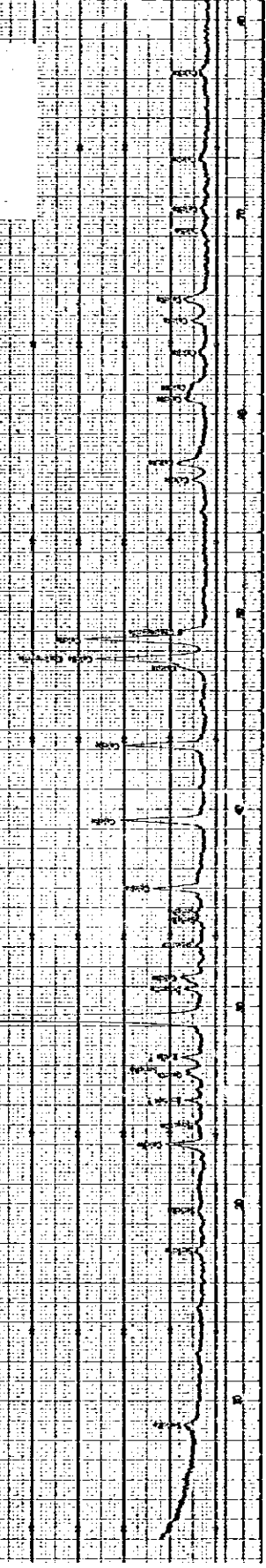
RD-100, CHART NO. 42-21

RD-100, CHART NO. 42-21

RD-100, CHART NO. 42-21

X-Ray Diffractometer

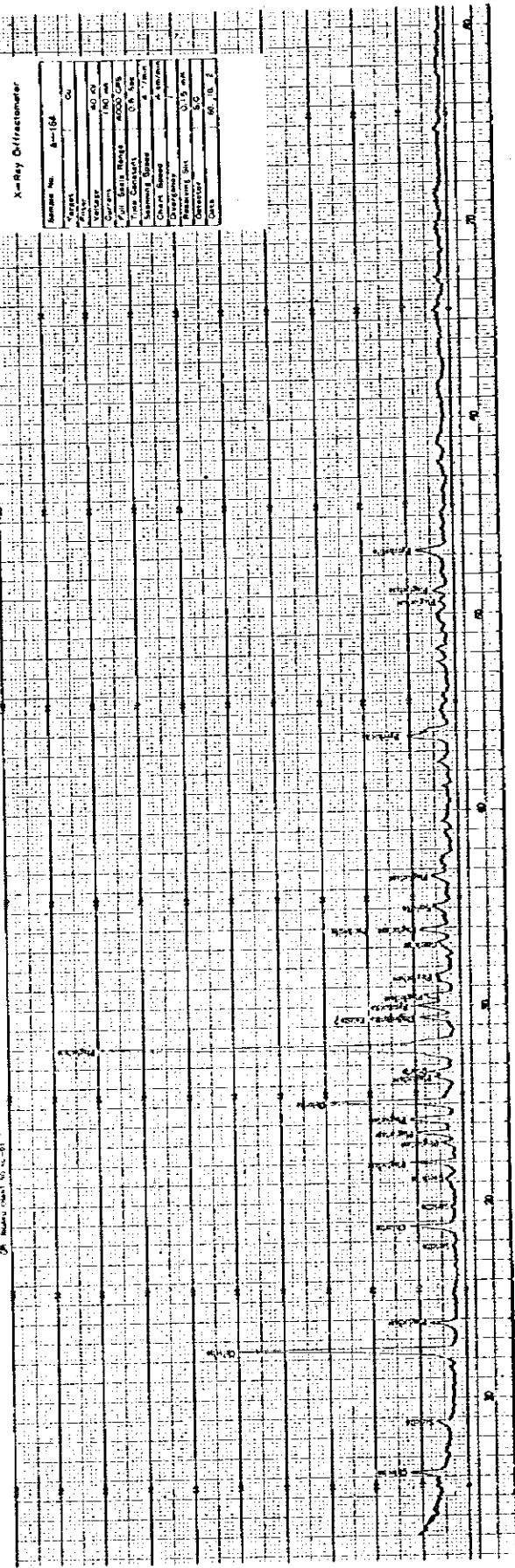
| | | |
|-------------|----------|----|
| Sample No. | 42-122 | Co |
| Target | | |
| Filter | | |
| Wavelength | 0.15 nm | |
| Slit | 0.15 mm | |
| Detector | 0.15 mm | |
| Scan Rate | 2000 CPS | |
| Time | 0.15 min | |
| Chart Speed | 4 mm/min | |
| Chart Range | 0.15 mm | |
| Resolution | 0.15 mm | |
| Detector | 0.15 mm | |
| Date | 50-10-7 | |



87 10000 004

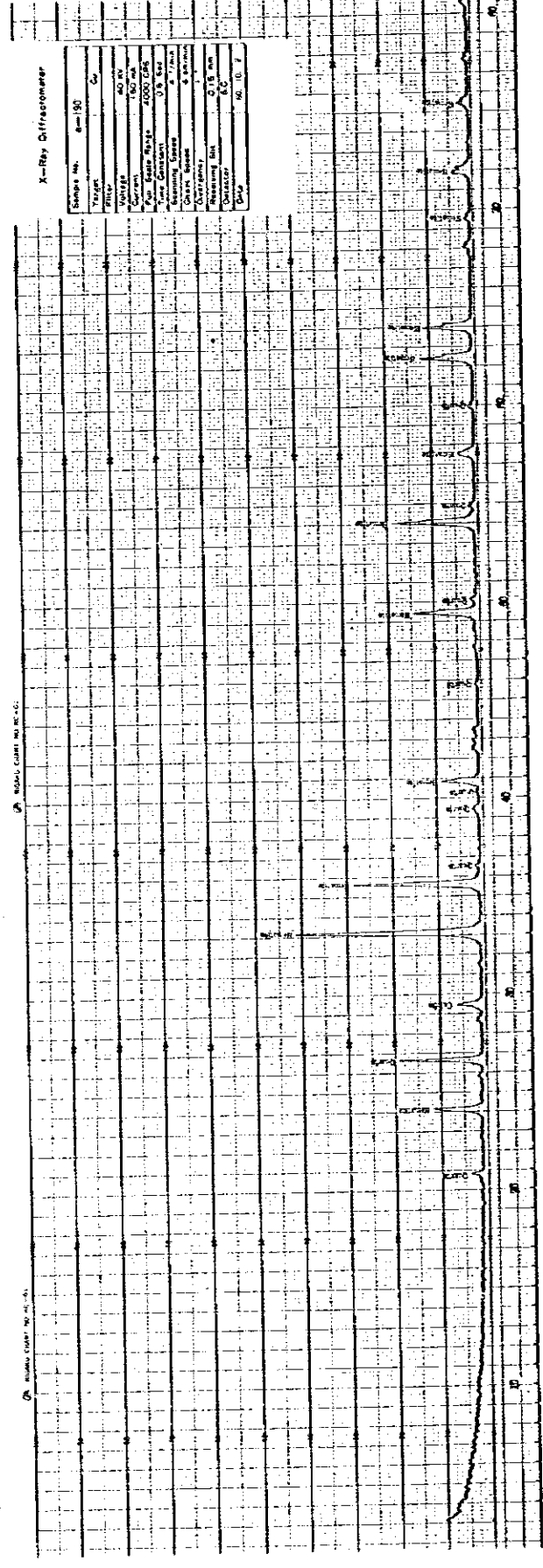
87 10000 004

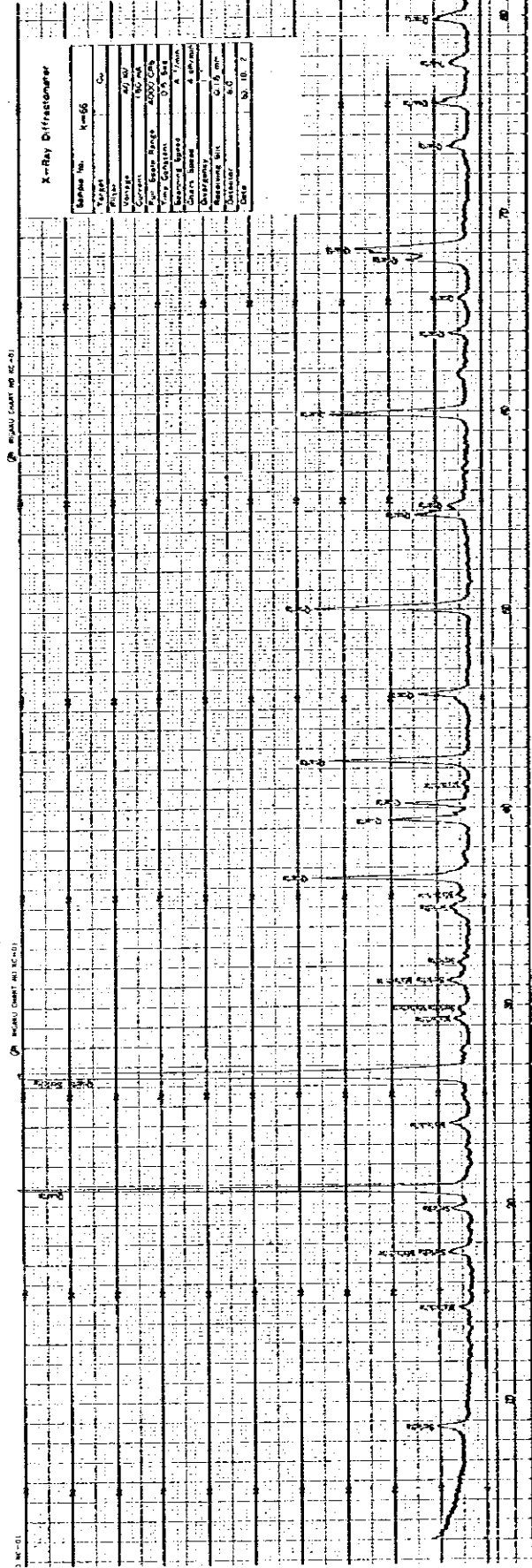
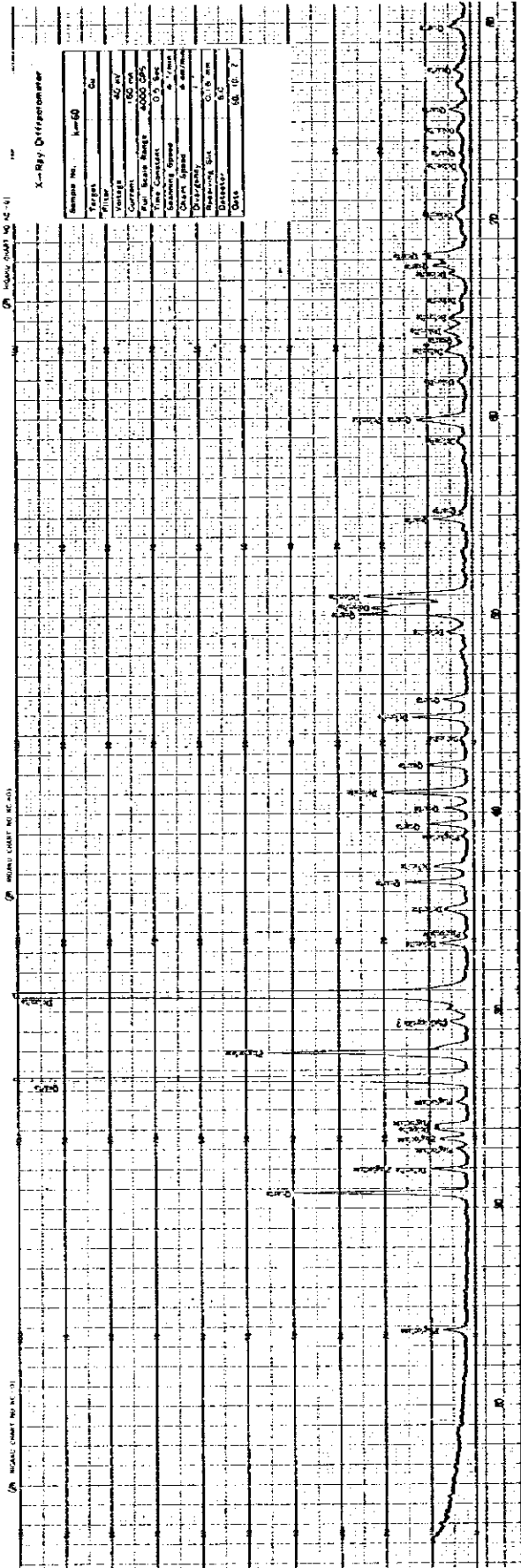
87 10000 004

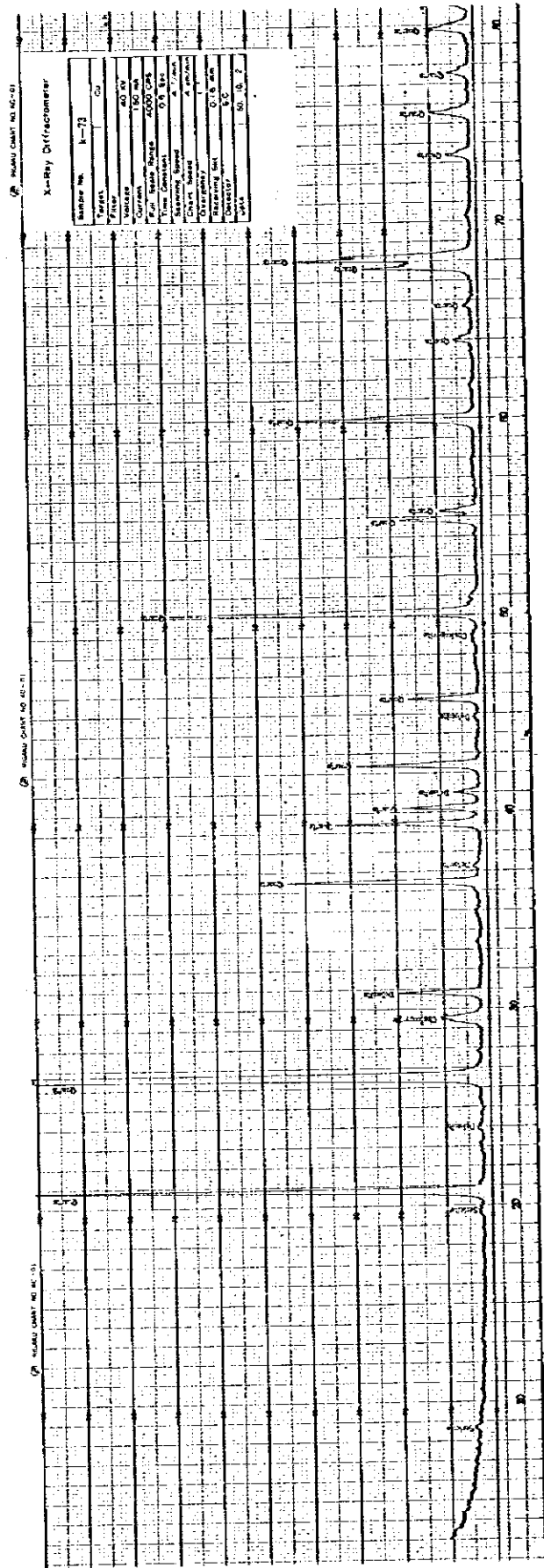
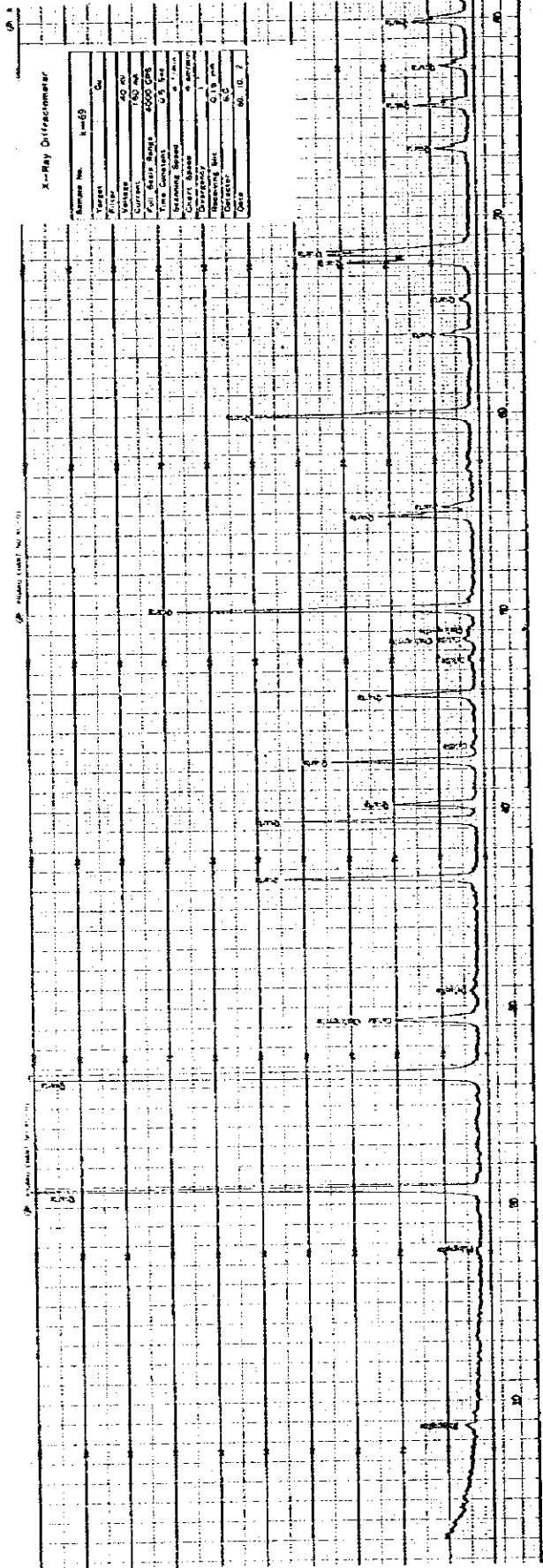


87 10000 004

87 10000 004

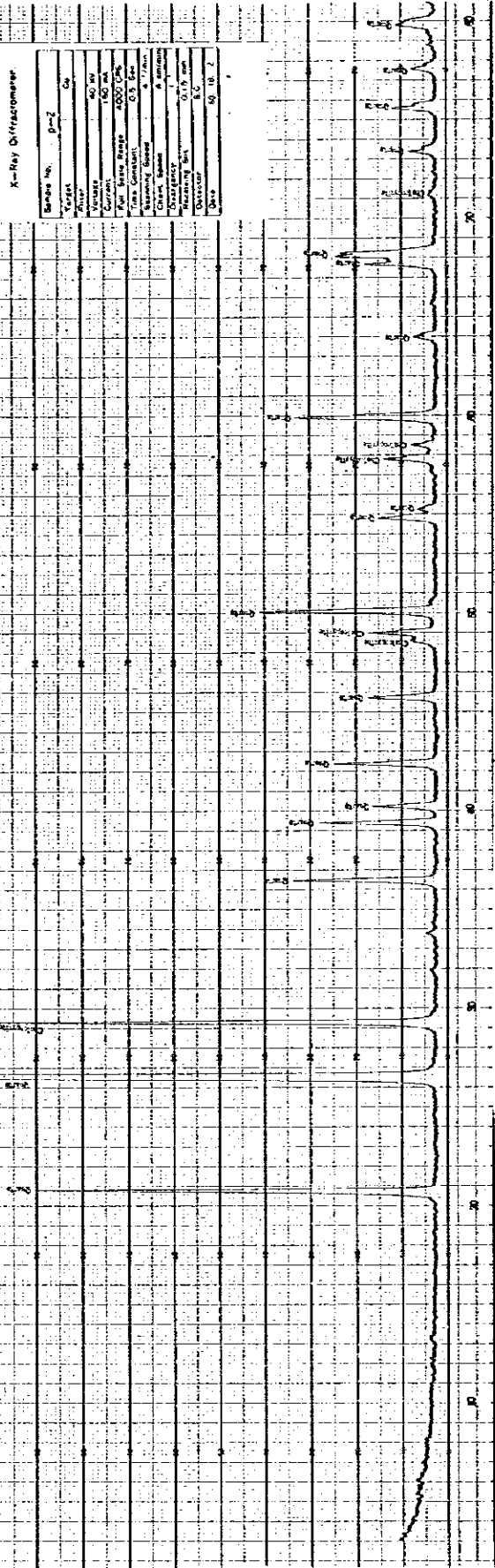






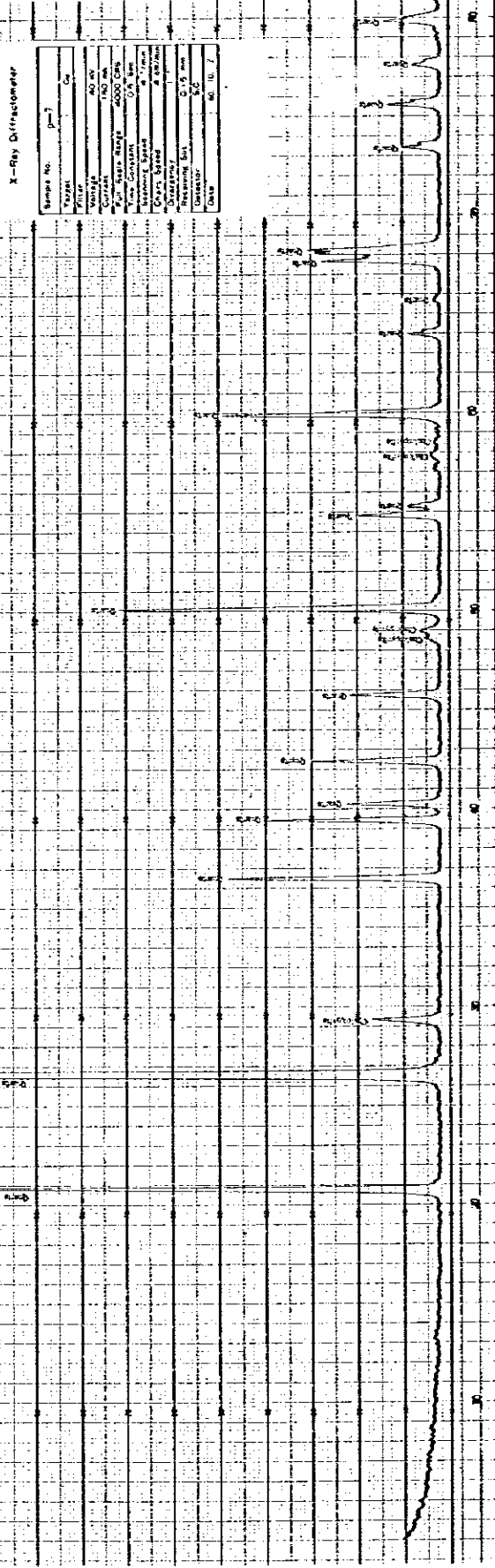
X-Ray Diffractometer

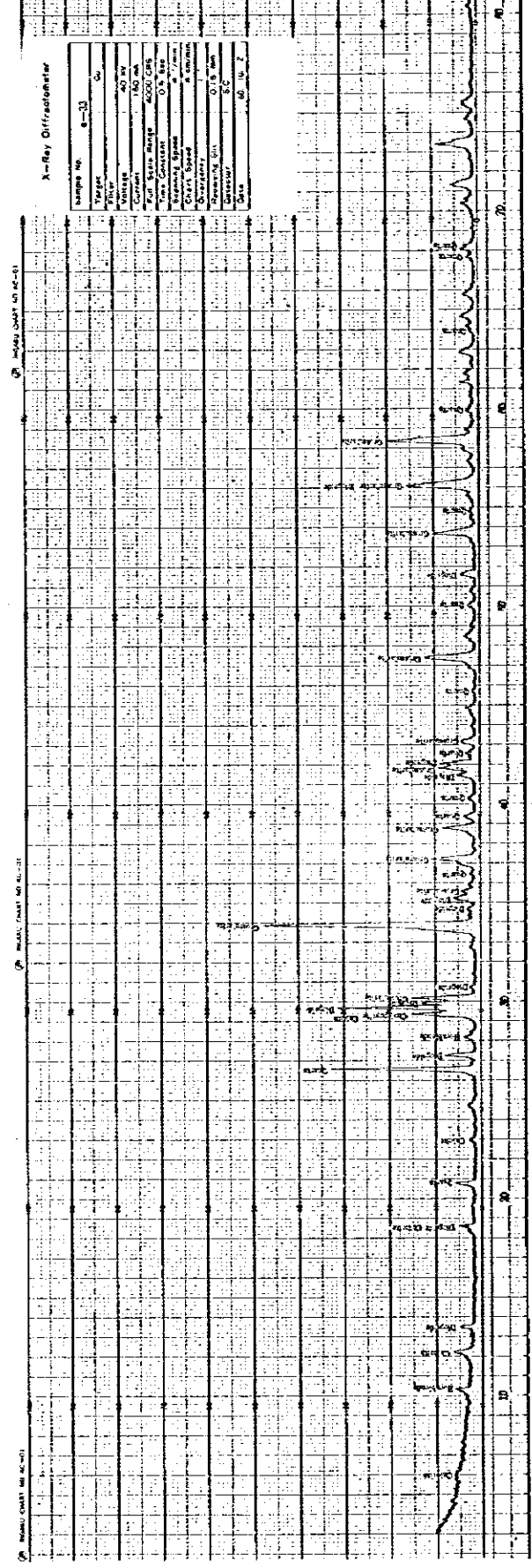
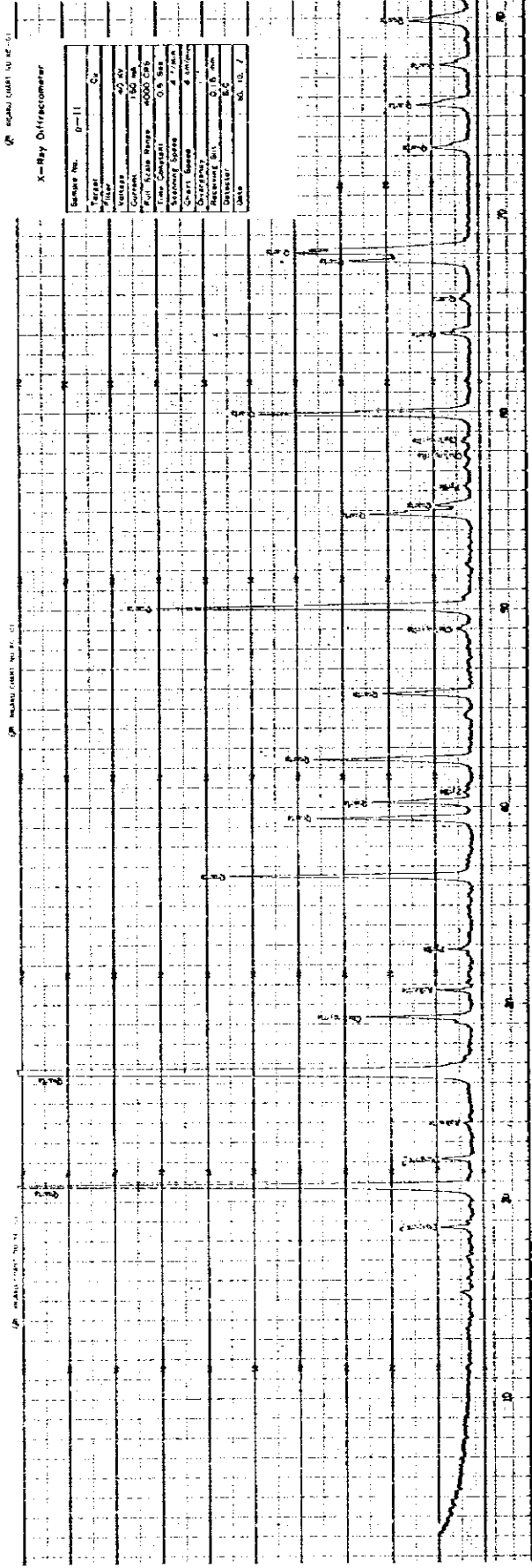
| | |
|---------------|-----------|
| Sample No. | 10-2 |
| Target | Cu |
| Filter | |
| Current | 40 mA |
| Voltage | 150 kV |
| Scan Rate | 1.00 deg |
| Slit Width | 4.000 deg |
| Scan Constant | 0.5 deg |
| Scan Speed | 1.77 in |
| Chart Speed | 4 mm/min |
| Detector | Siemens |
| Wavelength | 0.154 nm |
| Generator | S.C. |
| Operator | W. J. |

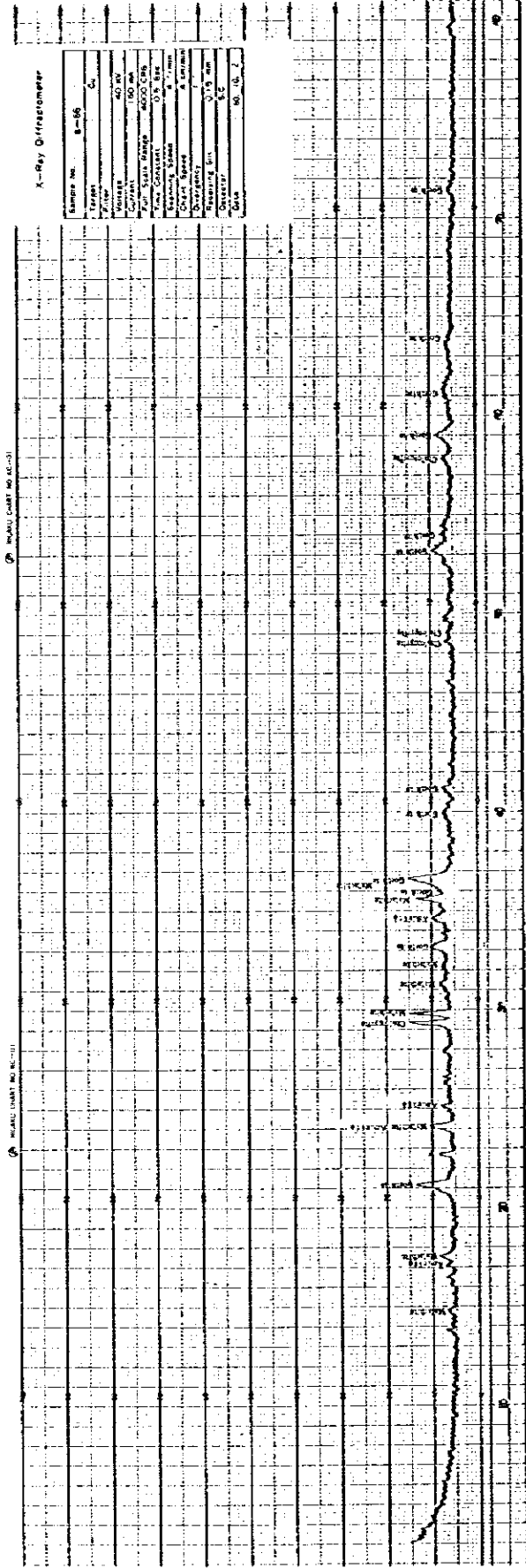
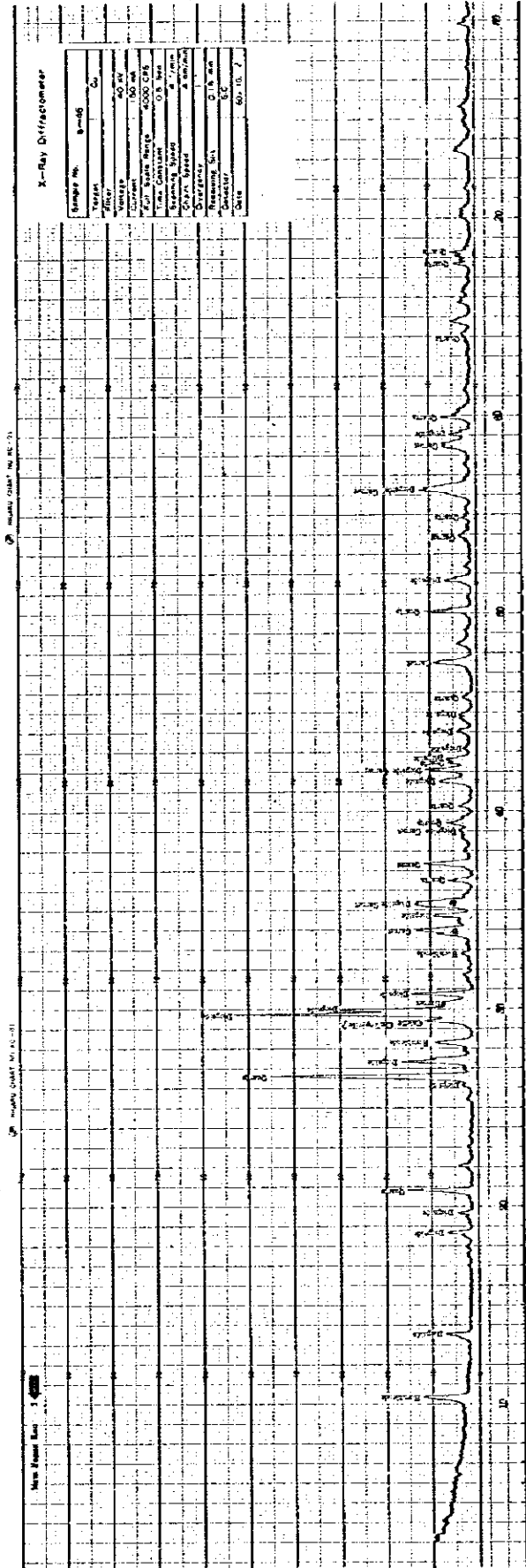


X-Ray Diffractometer

| | |
|---------------|-----------|
| Sample No. | 10-7 |
| Target | Cu |
| Filter | |
| Current | 40 mA |
| Voltage | 150 kV |
| Scan Rate | 1.00 deg |
| Slit Width | 4.000 deg |
| Scan Constant | 0.5 deg |
| Scan Speed | 1.77 in |
| Chart Speed | 4 mm/min |
| Detector | Siemens |
| Wavelength | 0.154 nm |
| Generator | S.C. |
| Operator | W. J. |

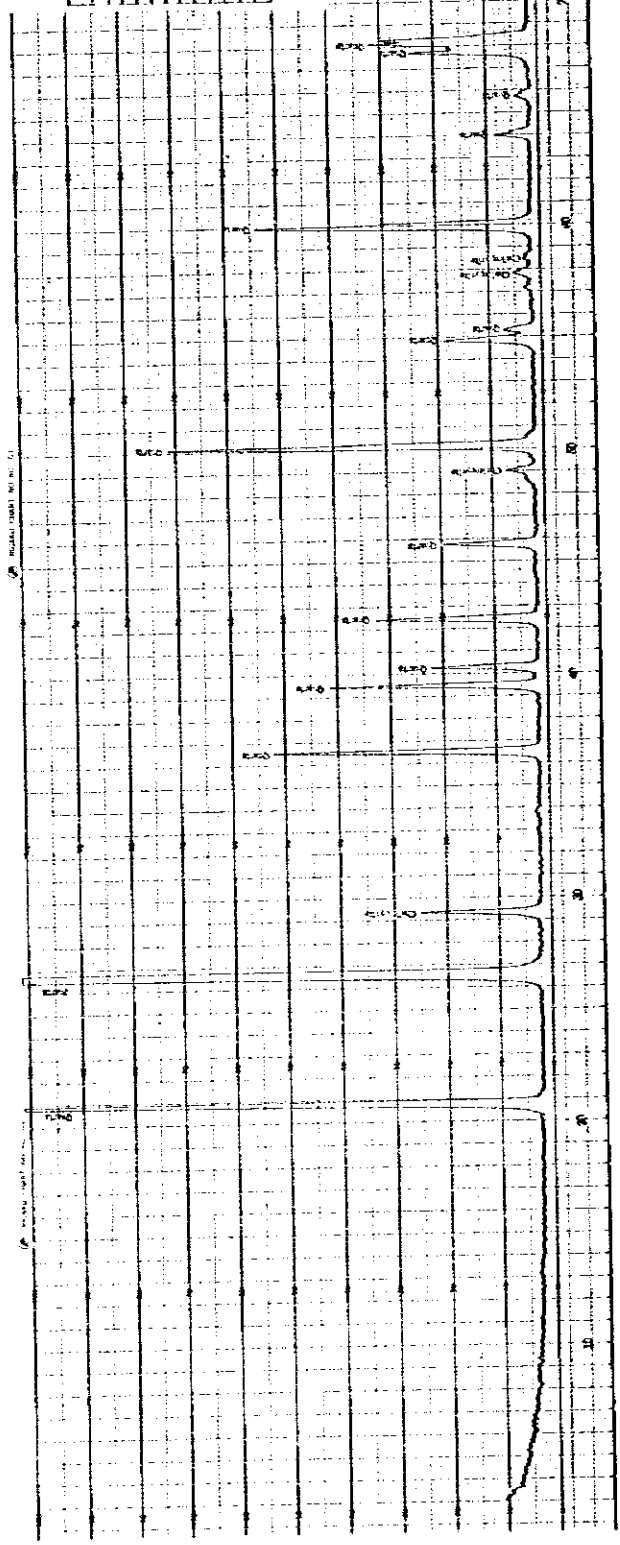






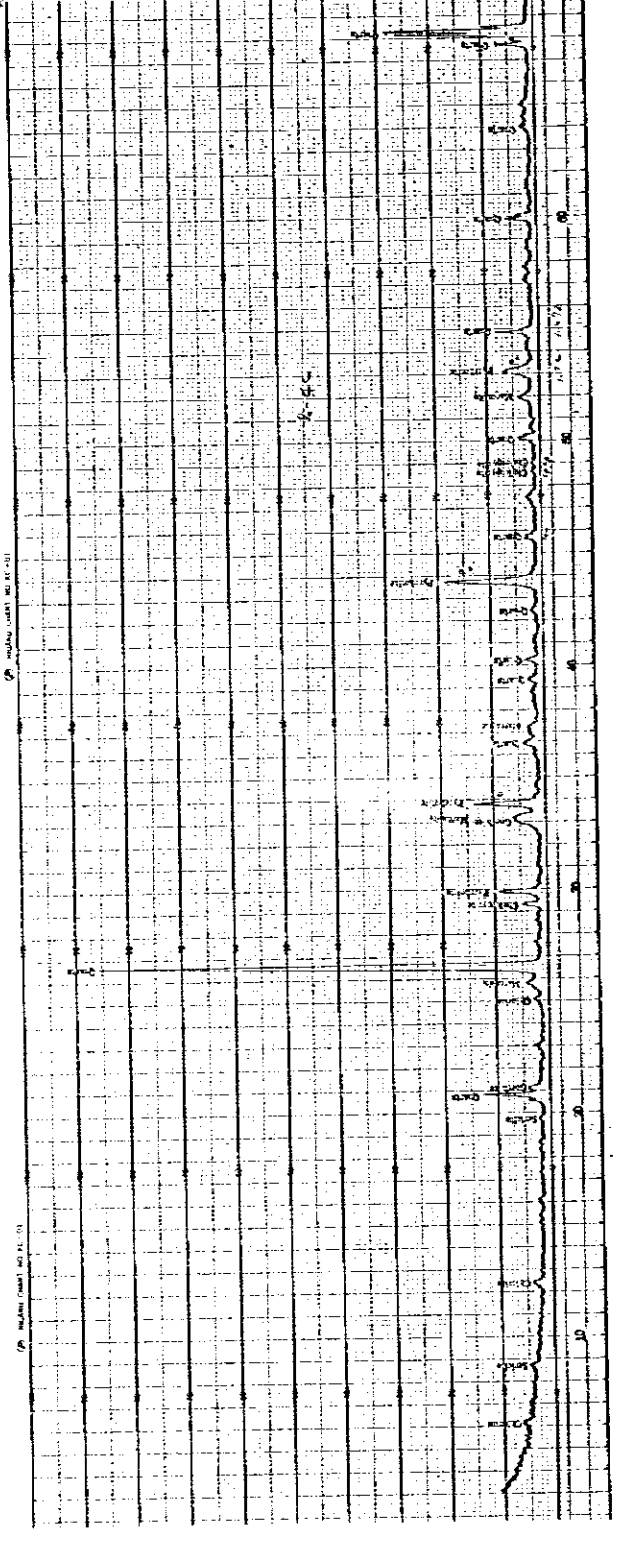
X-Ray Diffractometer

| | |
|----------------|------------|
| Sample No. | A-11 |
| Target | Cu |
| Filter | |
| Wavelength | 1.5406 |
| Current | 150 mA |
| Tube Voltage | 4000 Volts |
| Time Constant | 0.5 Sec |
| Scanning Speed | 2 deg/min |
| Chart Speed | 1 cm/min |
| Detector | Geiger |
| Detector slit | 0.5 mm |
| Sample slit | 0.5 mm |
| Scale | 10, 10, 1 |



X-Ray Diffractometer

| | |
|----------------|------------|
| Sample No. | 100-13 |
| Target | Cu |
| Filter | |
| Wavelength | 1.5406 |
| Current | 150 mA |
| Tube Voltage | 4000 Volts |
| Time Constant | 0.5 Sec |
| Scanning Speed | 2 deg/min |
| Chart Speed | 1 cm/min |
| Detector | Geiger |
| Detector slit | 0.5 mm |
| Sample slit | 0.5 mm |
| Scale | 10, 10, 1 |



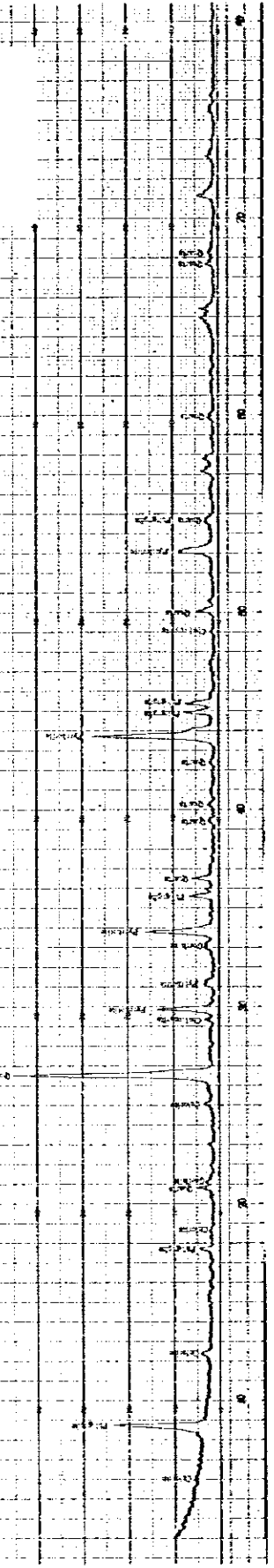
Standard Chart No. 10-01

Standard Chart No. 10-01

Standard Chart No. 10-01

X-Ray Diffractometer

| | |
|----------------|-----------|
| Sample No. | 15 |
| Target | Cu |
| Filter | |
| Slit | |
| Detector | |
| Current | 10 mA |
| Voltage | 30 kV |
| Power | 300 W |
| Tube Current | 10 mA |
| Tube Voltage | 30 kV |
| Slit | |
| Chart Speed | 4 mm/min |
| Chart Range | 4 mm |
| Chart Paper | |
| Operator | |
| Receiving slit | 0.5 mm |
| Detector | SiC |
| Date | 10. 10. 7 |



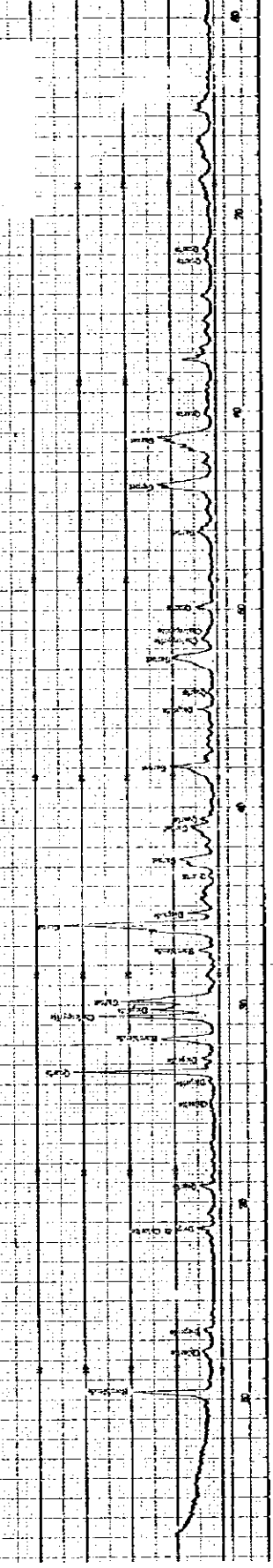
Standard Chart No. 10-01

Standard Chart No. 10-01

Standard Chart No. 10-01

X-Ray Diffractometer

| | |
|----------------|-----------|
| Sample No. | 17 |
| Target | Cu |
| Filter | |
| Slit | |
| Detector | |
| Current | 10 mA |
| Voltage | 30 kV |
| Power | 300 W |
| Tube Current | 10 mA |
| Tube Voltage | 30 kV |
| Slit | |
| Chart Speed | 4 mm/min |
| Chart Range | 4 mm |
| Chart Paper | |
| Operator | |
| Receiving slit | 0.5 mm |
| Detector | SiC |
| Date | 10. 10. 7 |



資料 I — 6 Agadir地区鉍石分析結果一覽表

| No. | Sample No. | Cu % | Mo % | W % | No. | Sample No. | Cu % | Mo % | W % |
|-----|------------|-------|-------|-------|-----|------------|-------|-------|-------|
| 1 | a-4 | 0.40 | <0.01 | <0.01 | 41 | a-55 | <0.01 | <0.01 | <0.01 |
| 2 | a-5 | 0.90 | <0.01 | <0.01 | 42 | a-56 | <0.01 | <0.01 | <0.01 |
| 3 | a-6 | 0.42 | <0.01 | <0.01 | 43 | a-63 | <0.01 | <0.01 | <0.01 |
| 4 | a-7 | 0.95 | <0.01 | <0.01 | 44 | a-64 | <0.01 | <0.01 | <0.01 |
| 5 | a-8 | 0.80 | <0.01 | 0.10 | 45 | a-65 | <0.01 | <0.01 | <0.01 |
| 6 | a-9 | 0.50 | <0.01 | <0.01 | 46 | a-71 | 0.10 | <0.01 | <0.01 |
| 7 | a-10 | 0.28 | <0.01 | <0.01 | 47 | a-72 | 0.01 | <0.01 | <0.01 |
| 8 | a-11 | 0.24 | <0.01 | <0.01 | 48 | a-120 | 0.11 | <0.01 | <0.01 |
| 9 | a-12 | 0.44 | <0.01 | <0.01 | 49 | a-121 | 0.45 | <0.01 | <0.01 |
| 10 | a-13 | 0.15 | <0.01 | 0.02 | 50 | a-122 | 0.10 | 0.02 | <0.01 |
| 11 | a-14 | 0.12 | <0.01 | 0.01 | 51 | a-123 | <0.01 | <0.01 | <0.01 |
| 12 | a-15 | 0.11 | <0.01 | <0.01 | 52 | a-124 | 0.04 | <0.01 | <0.01 |
| 13 | a-16 | 0.09 | <0.01 | <0.01 | 53 | S-9 | 0.04 | <0.01 | <0.01 |
| 14 | a-17 | 1.00 | <0.01 | <0.01 | 54 | S-10 | 0.09 | <0.01 | <0.01 |
| 15 | a-18 | 0.48 | <0.01 | 0.10 | 55 | S-17 | 0.04 | <0.01 | <0.01 |
| 16 | a-19 | 0.03 | <0.01 | 0.23 | 56 | S-18 | 0.49 | <0.01 | <0.01 |
| 17 | a-20 | 0.01 | <0.01 | 0.03 | 57 | S-20 | 1.30 | 0.02 | <0.01 |
| 18 | a-21 | 0.05 | <0.01 | <0.01 | 58 | S-33 | 0.12 | <0.01 | <0.01 |
| 19 | a-22 | 4.35 | <0.01 | <0.01 | 59 | S-39 | <0.01 | <0.01 | <0.01 |
| 20 | a-24 | 0.68 | <0.01 | 0.02 | 60 | S-40 | <0.01 | <0.01 | <0.01 |
| 21 | a-25 | <0.01 | <0.01 | 0.15 | 61 | S-41 | <0.01 | <0.01 | <0.01 |
| 22 | a-30 | <0.01 | <0.01 | <0.01 | 62 | S-42 | <0.01 | <0.01 | <0.01 |
| 23 | a-33 | <0.01 | <0.01 | <0.01 | 63 | S-43 | <0.01 | <0.01 | <0.01 |
| 24 | a-34 | <0.01 | <0.01 | <0.01 | 64 | S-44 | <0.01 | <0.01 | 0.17 |
| 25 | a-35 | <0.01 | <0.01 | <0.01 | 65 | S-45 | 0.02 | <0.01 | <0.01 |
| 26 | a-36 | 0.02 | <0.01 | <0.01 | 66 | S-47 | 0.04 | <0.01 | <0.01 |
| 27 | a-37 | <0.01 | <0.01 | <0.01 | 67 | S-48 | 0.26 | <0.01 | <0.01 |
| 28 | a-38 | <0.01 | <0.01 | <0.01 | 68 | S-50 | 0.03 | <0.01 | <0.01 |
| 29 | a-39 | <0.01 | <0.01 | <0.01 | 69 | S-51 | 0.04 | 0.01 | <0.01 |
| 30 | a-40 | <0.01 | <0.01 | <0.01 | 70 | S-52 | 0.03 | <0.01 | <0.01 |
| 31 | a-41 | <0.01 | <0.01 | <0.01 | 71 | S-53 | 0.01 | 0.02 | <0.01 |
| 32 | a-42 | <0.01 | <0.01 | <0.01 | 72 | S-54 | 0.01 | 0.03 | <0.01 |
| 33 | a-43 | <0.01 | <0.01 | <0.01 | 73 | S-55 | 0.02 | <0.01 | <0.01 |
| 34 | a-44 | <0.01 | <0.01 | <0.01 | 74 | W-5 | <0.01 | <0.01 | <0.01 |
| 35 | a-45 | <0.01 | <0.01 | <0.01 | 75 | W-6 | 0.78 | <0.01 | <0.01 |
| 36 | a-46 | <0.01 | <0.01 | <0.01 | 76 | W-8 | <0.10 | <0.01 | 0.03 |
| 37 | a-47 | 0.01 | <0.01 | 0.01 | 77 | W-9 | 0.25 | <0.01 | 0.02 |
| 38 | a-48 | <0.01 | <0.01 | <0.01 | 78 | W-10 | <0.01 | <0.01 | <0.01 |
| 39 | a-49 | <0.01 | <0.01 | <0.01 | 79 | W-11 | 0.39 | <0.01 | 0.15 |
| 40 | a-50 | <0.01 | <0.01 | <0.01 | 80 | B-18 | 0.83 | <0.01 | <0.01 |