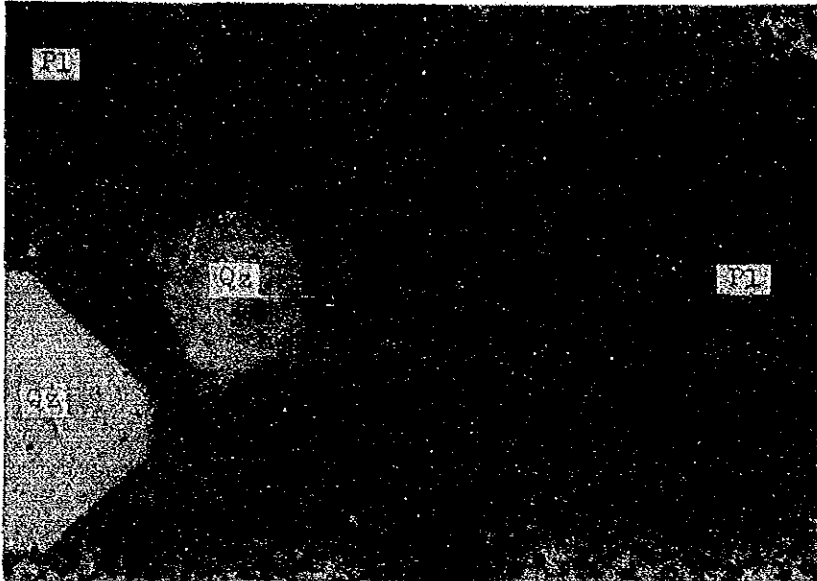


Appendix 2 Microphotograph (Polished Section)



Pl ; Plagioclase
 Qu ; Quartz

Parallel Nicol

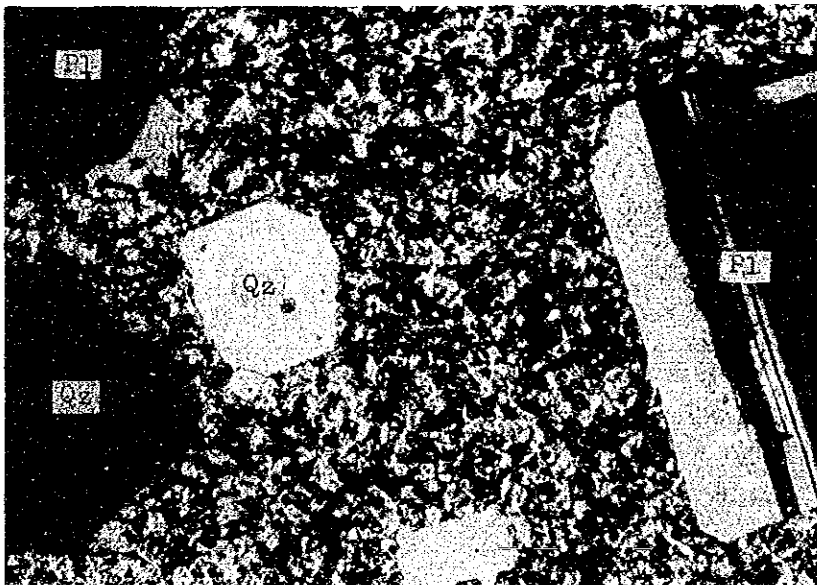
0.5 mm

Dacite, (Sample No. DF-043) Dyke in Siagot Diorite

Locality ; 29 Km E of Tuguegarao

Main mineral ; Phenocryst ; Plagioclase, Quartz

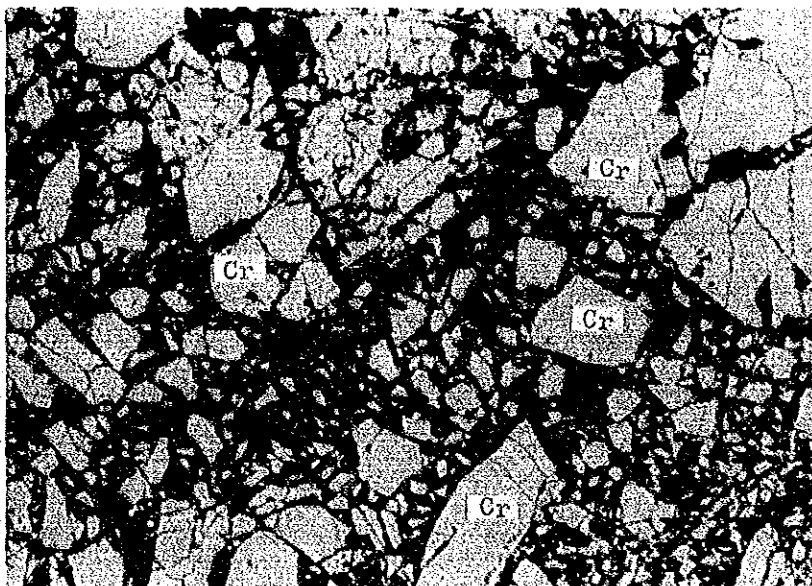
Groundmass ; Chlorite, Plagioclase, Quartz, Silica-mineral



Cross Nicol

0.5 mm

Palanan Area
(Polished Section micro-photograph)



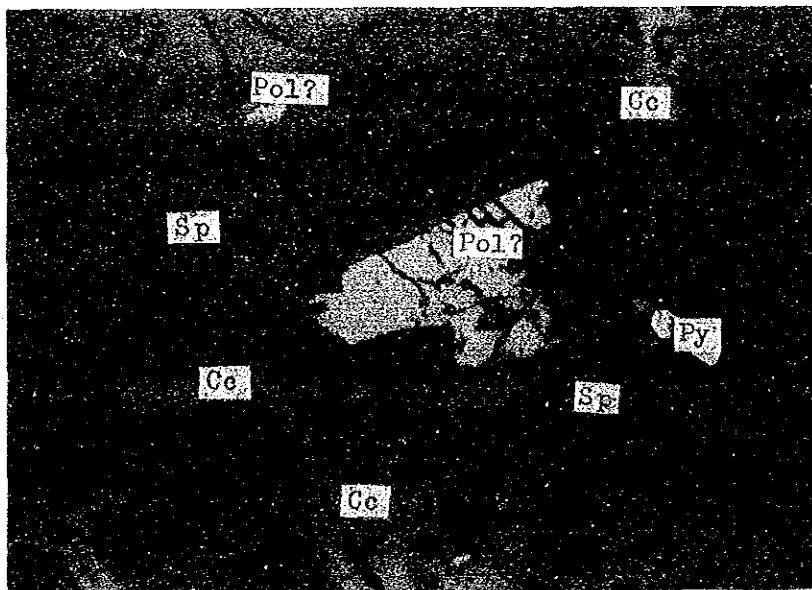
0.2 mm

Sample of Caschrome
Wasayan 2 (CA-60)

Chromite ore in Raddish
brown Soil

Cr₂O₃ 53.39%

Cr ; Chromite



0.1 mm

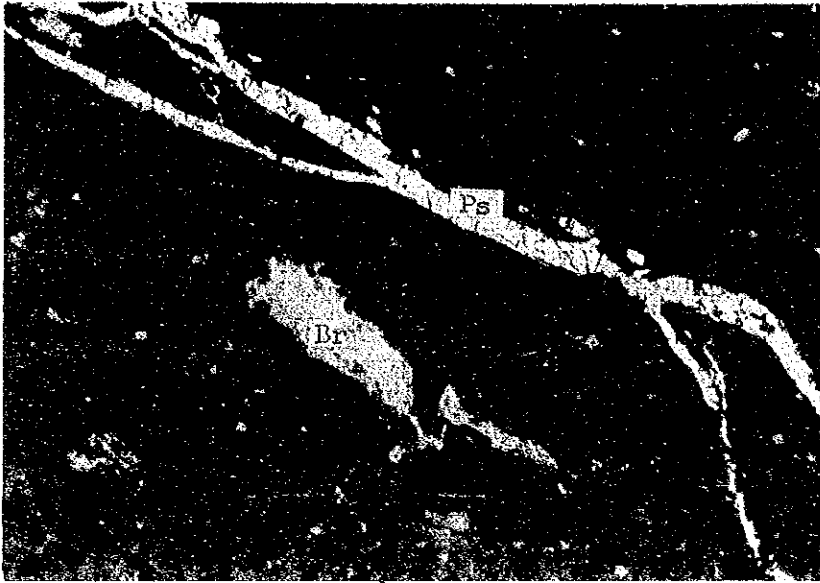
Sample of Dimakawal
Mn Prospect (MD-4)

High copper zone Ore
with Manganese mineral
in Volcanic breccia

Au g/t	Ag g/t	Cu%	Zn%
2.0	132.3	15.88	23.00

Pol;
Ce ; Chalcocite
Sp ; Sphalerite
Pol; Polybasite
Py ; Pyrite

Palanan Area
(Polished Section Micro-photograph)



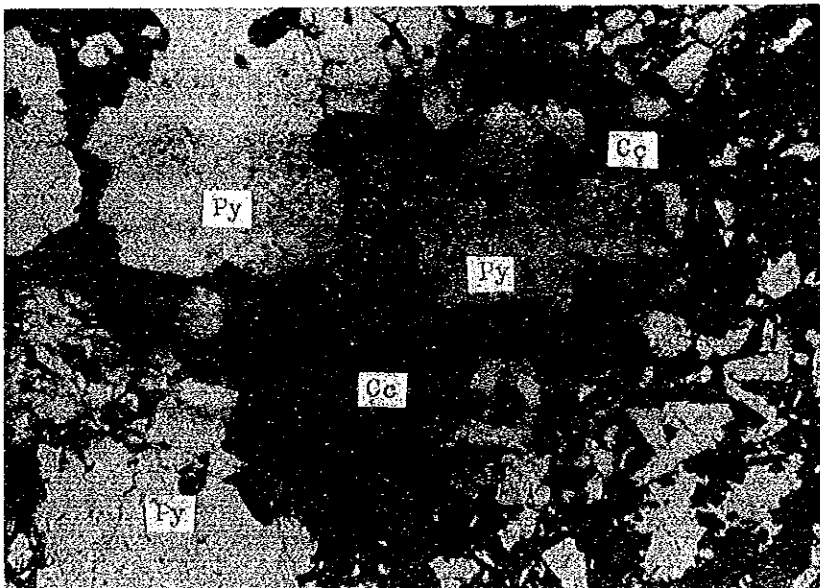
Sample of Dikadioan
Mn Prospect (KR-16)
Manganiferous chert

SiO ₂ %	Mn%	Fe%	P%
83.7	1.24	5.29	0.05

CaO%
0.07

Ps ; Pyrolusite
Br ; Braunitite

0.1 mm



Sample of Bicobian
Copper prospect.
(Bic-02)

Massive Sulphide boulder

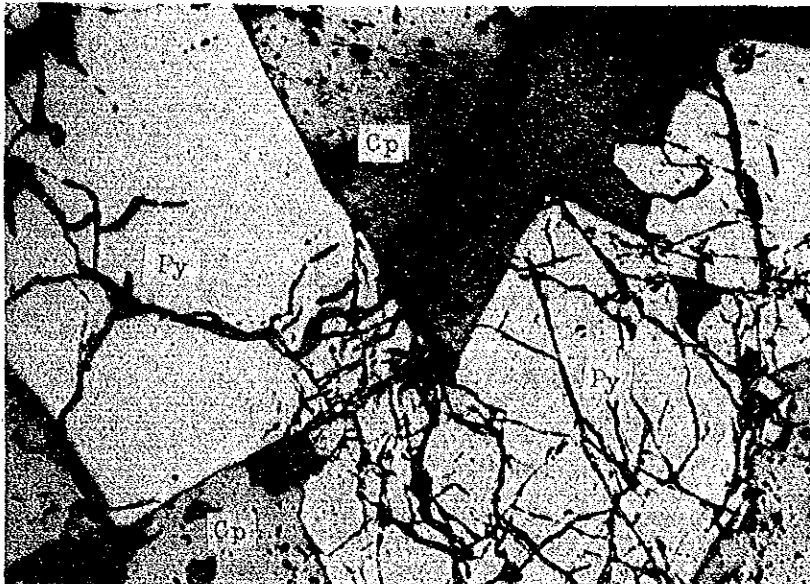
Au g/t	Ag g/t	Cu%	Zn%
5.5	168.5	54.48	0.26

S%
26.14

Py ; Pyrite
Cc ; Chalcocite

0.2 mm

Cauayan Area
(Polished Section Micro-photograph)



0.3 mm

Sample of Dina Creek I
Copper Showing
(Sample AK051R (Sta45))

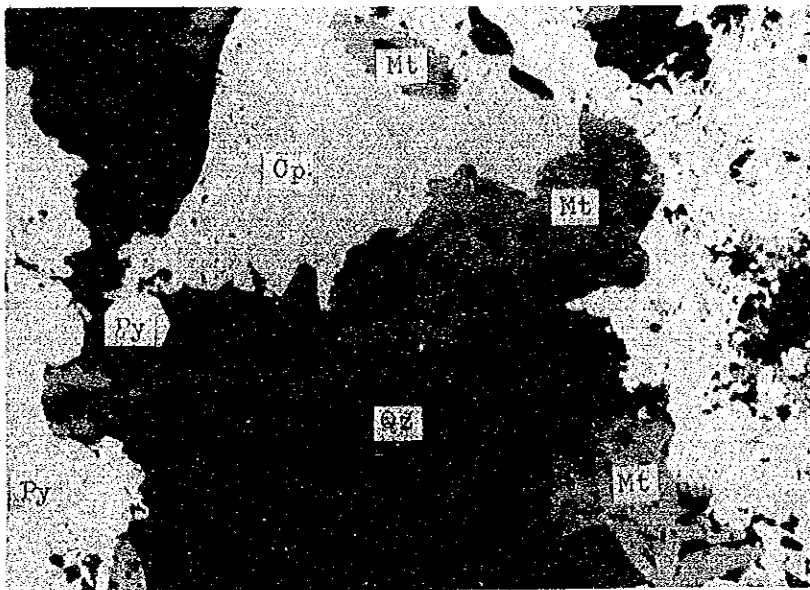
Pyrite Disseminated zone
in porphyritic andesite

Accompanied Quartz
diorite

Au g/t	Ag g/t	Cu%	Pb%
0.07	3.3	0.64	<0.01

Zn%	0.01
-----	------

Py ; Pyrite
Cp ; Chalcopyrite



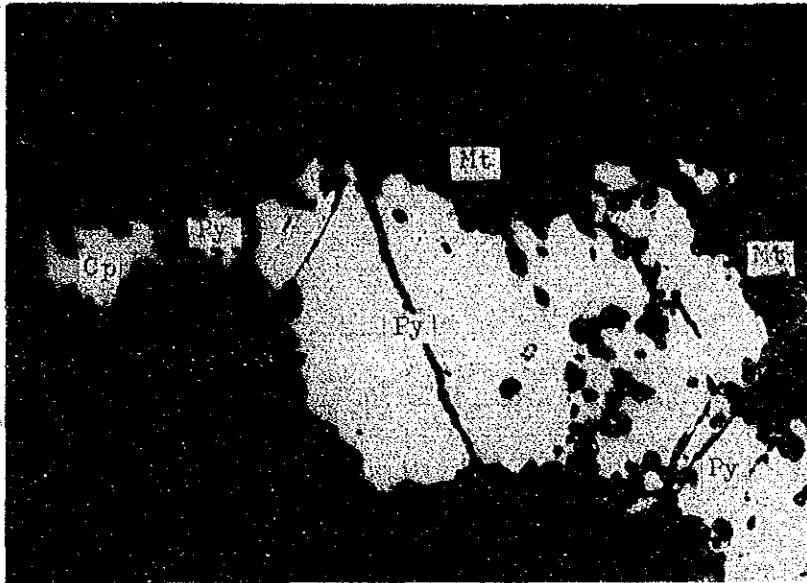
0.1 mm

Sample of Dina Creek I
Copper Showing
(AK051R (amp 2))

Massive sulphide float

Qz ; Quartz
Cp ; Chalcopyrite
Py ; Pyrite
Mt ; Magnetite

Ilagan Area
(Polished Section Micro-photograph)



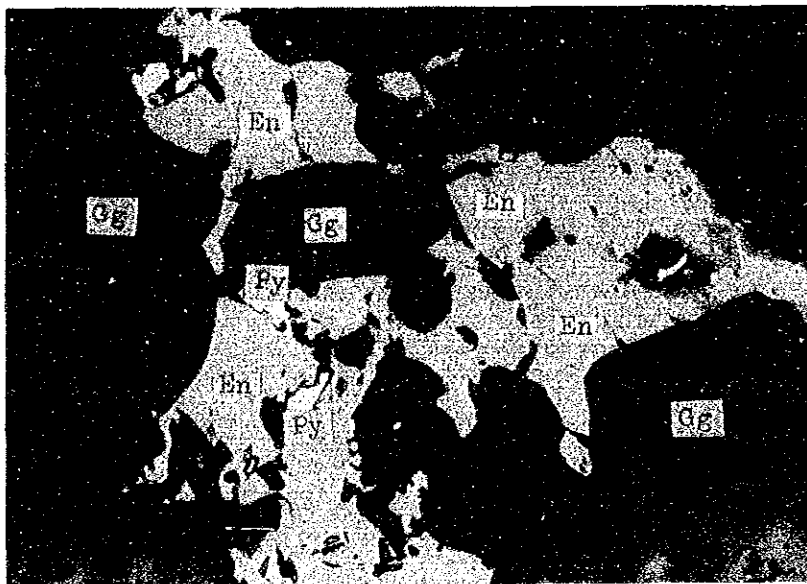
Sample of Lupigue
Copper Showing.
(BA005b)

Pyrite dissemination in
hornfels and silicious
sandstone.

Cp ; Chalcopyrite
Py ; Pyrite
Mt ; Magnetite

0.3 mm

Tuguegarao Area



Sample of Casablangan
Showing (DF039b)

Pyrite Dissemination in
altered Dacite

Py ; Pyrite
Gg ; Gangue mineral
En ; Enargite

0.1 mm

Appendix 3 Micro Fossil Correlation Table

Appendix 3 Microfossil Correlation Table

Identification Table of Radiolaria and Foraminifera Samples

in Northern Sierra Madre Area			
MMAJ Samples			
Sample no.	Radiolarians	Foraminifers	Remarks
CCR4	Barren	Barren	Chert
BIC5	Common/Poor Thanarla conica T. pulchra(?) Holocryptocanium geysersonsis Archaeodictyomitra vulgaris Archaeodictyomitra sp. (Age; Lower Cretaceous, Valanginian to Aptian)	Barren	Chert
BD104	Barren	Rare/Poor Globorotalia sp.	Siltstone
CF006R	Barren	Trace Bathysiphon sp.	
DD014	Barren	Barren	Volc. sandst
CK62146A	Barren	Rare/Poor	Siliceous nodule
DJ003	Barren	Barren	
CH117R	Barren	Barren	Limestone
QN26A	Barren	Barren	
AD130R	Barren	Rare/Poor	Siltst.
VS2	Barren	Barren	Limestone
KR15	Barren	Barren	Black silic. shale
BL069	Barren	Barren	Ostrea sst.
BE054	Trace Conosphaera sp.	Rare/Poor Globigerina sp	Sandy siltst
BA001C	Barren	Barren	Sandst.
AD076R	Barren	Barren	Sandy siltst
DK082	Barren	Barren	Calc. sst.
BC044	Barren	Barren	Congl.
AD096R	Barren	Barren	Sandy siltst
CA032R	Barren	Common/Poor	Calc. sandstone
3K006	Barren	Barren	Siliceous sandstone
SF001	Barren	Barren	Volc. sandstone
AG046R	Barren	Barren	Sandy siltstone
CE007	Barren	Barren	Black siltstone
CM100	Barren	Barren	Sst. and limestone
AD114R	Barren	Rare/Poor	Siltstone
AF010R	Barren	Barren	
BH122	Barren	Barren	Calc. sst.
BK004	Barren	Common/Moderate	Siltst.
AL008R	Barren	Barren	Silty sst.
AL003R	Barren	Barren	Black sandst.
AG006R	Barren	Barren	Silty sst.
BJ028	Barren	Barren	White limestone
BH080	Barren	Rare/Poor	Siliceous siltstone
AM025R	Barren	Barren	Sandstone

After Dr. M. Okamura ; Faculty of Geology Kochi Univ. Japan

Identification Table of Nanno-Flankton Samples
in Northern Sierra Madre Area

SAMPLE NUMBER	Cauayan			Ilagan					Palanan			Tuguegarao		
	AD1 14R	AD1 30R	ALO 03R	BD 104	BH 122	BJ 028	BK 004	BL 069	CK62 146A	CA 32R	CHI 17R	DJ 003	NQ 26A	DK 082
ABUNDANCE - PRESERVATION ETCHING / OVERGROWTH	A G 0/0	A G 0/0	R M 1/0	C G 0/0	C M 0/2	T P 0/3	C M 1/0	F M 0/1	F P 1/2	C M 1/1	T P 1/0	R G 0/0	F N 1/0	F P 1/3
<i>Braarudosphaera bigelowii</i>	-	F	-	-	-	-	-	-	-	-	-	-	-	-
<i>Calcidiscus leptoporus</i>	-	-	-	C	-	-	-	-	-	F	-	-	-	-
<i>C. macintyreii</i>	-	-	-	F	-	-	-	-	-	F	-	+	-	-
<i>Chiasmolithus cf. altus</i>	-	R	-	-	-	-	-	-	-	-	-	-	-	-
<i>Coccolithus miopelagicus</i>	F	F	-	-	-	-	-	-	-	-	-	-	F	-
<i>C. pelagicus</i>	A	C	-	F	C	-	F	C	+	F	-	+	C	-
<i>Coronocyclus nitescens</i>	R	R	-	-	-	-	-	-	-	-	-	-	-	-
<i>Cyclicargolithus abisectus</i>	C	-	-	-	C	-	-	F	+	-	-	-	F	-
<i>C. floridanus</i>	A	A	-	-	A	-	-	A	+	+	+	-	A	+
<i>Dictyococcites bisectus</i>	-	-	-	-	-	-	-	-	+	-	-	-	-	-
<i>D. productus</i>	-	-	+	-	-	-	C	-	-	-	-	+	-	-
<i>Dictyococcites sp.</i>	-	-	-	-	-	-	-	-	-	-	-	-	-	+
<i>Discoaster adamanteus</i>	F	R	-	-	-	-	-	-	-	-	-	-	F	-
<i>D. berggrenii</i>	-	-	+	F	-	-	F	-	-	C	-	-	-	-
<i>D. brouweri</i>	-	-	-	-	-	-	-	-	-	F	-	-	-	-
<i>D. deflandrei</i>	A	A	-	-	F	+	-	-	-	-	-	-	F	-
<i>D. intercalaris</i>	-	-	-	R	-	-	-	-	-	-	-	-	-	-
<i>D. pentaradiatus</i>	-	-	-	-	-	-	-	-	-	F	-	-	-	-
<i>D. quinquaramus</i>	-	-	+	F	-	-	C	-	-	C	-	-	-	-
<i>D. surculus</i>	-	-	-	R	-	-	-	-	-	-	-	-	-	-
<i>D. tani ornatus</i>	F	F	-	-	-	-	-	-	-	-	-	-	-	-
<i>D. variabilis</i>	-	-	+	-	-	-	F	-	-	F	-	-	-	-
<i>Helicosphaera carteri</i>	-	-	-	C	-	-	C	-	-	A	-	+	-	-
<i>Helicosphaera euphratis</i>	C	C	-	-	F	+	-	-	-	F	-	-	-	-
<i>H. perch-nielsenae</i>	-	R	-	-	-	-	-	F	-	-	-	F	-	-
<i>H. trumpeyi</i>	R	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>H. wilcoxonii</i>	R	-	-	-	-	-	-	-	-	-	-	-	-	-
<i>Lophodolichus sp.</i>	-	-	-	-	-	-	-	-	-	-	-	-	F	-
<i>Pontosphaera japonica</i>	-	-	-	F	-	-	-	-	-	-	-	-	-	-
<i>P. multipora</i>	-	-	-	F	-	-	F	-	F	-	-	-	-	-
<i>P. pectinata</i>	-	R	-	-	-	-	-	-	-	-	-	-	-	-
<i>Reticulofenestra gelida</i>	-	-	-	-	-	-	F	-	-	-	-	-	-	-
<i>R. haquii</i>	C	C	-	-	C	-	-	A	+	-	-	-	-	-
<i>R. lockeri</i>	-	-	-	-	-	-	-	-	-	-	-	-	C	-
<i>R. minuta</i>	-	-	+	-	-	-	C	-	-	-	-	+	-	-
<i>R. minutula</i>	-	-	+	A	-	-	A	-	-	C	-	+	-	-
<i>R. pseudoubilica</i>	-	-	-	-	-	-	-	-	-	-	-	+	-	-
<i>Reticulofenestra sp.</i>	-	-	-	-	-	-	-	-	-	-	+	-	-	+
<i>Sphenolithus abies</i>	-	-	+	A	-	-	A	-	-	-	-	+	-	-
<i>S. ciproensis</i>	R	-	-	-	F	-	-	F	-	-	-	-	F	+
<i>S. conicus</i>	-	R	-	-	F	-	-	-	-	-	-	-	-	-
<i>S. delphix</i>	-	C	-	-	-	-	-	-	-	-	-	-	-	-
<i>S. dissimilis</i>	C	C	-	-	C	-	-	C	+	-	-	-	C	+
<i>S. distentus</i>	-	-	-	-	-	+	-	F	-	-	-	-	F	+
<i>S. grandis</i>	-	-	-	F	-	-	-	-	-	-	-	-	-	-
<i>S. moriformis</i>	C	C	-	-	C	+	-	C	+	C	-	-	C	-
<i>S. neoabies</i>	-	-	-	C	-	-	C	-	C	-	-	+	-	-
<i>S. predistentus</i>	-	-	-	-	-	-	-	F	-	-	-	-	-	-
<i>S. verensis</i>	-	-	-	C	-	-	C	-	C	-	-	-	-	-
<i>Thoracosphaera spp.</i>	-	-	-	C	-	-	F	-	-	-	-	-	-	-
<i>Triquetrorhabdulus carinatus</i>	-	F	-	-	-	-	-	-	-	-	-	-	-	-
<i>T. milowii</i>	-	F	-	-	-	-	-	-	-	-	-	-	-	-
NANNOZONE	CP-	19b			19	18-19		19a	18-19		13		19a	19a
	CN-		1b	9	9		9		9	5a		7-11		

After Dr. H. Okada ; Geo-Science Division
Yamagata Univ. Japan.

Appendix 4 Time Determination Data of K-Ar Method

Appendix 4

Time determination Data

of K-Ar method

TELEDYNE ISOTOPES

POTASSIUM - ARGON LABORATORY

Report of Analysis

T. I. W. O. # 3-9974-122 Your P. O. # 062-1214 Date - 30 September 1986 Page 1 of 2

Submitted by Teledyne Japan K.K.
Nihonseihei Akasaka Bldg.
8-1-19, Akasaka, Minato-ku
Tokyo 107, Japan

for Overseas Mineral Resources
Development Co., Ltd.

Att: Mr. Y. Ohyama

Results of K-Ar Age Determination
in Northern Sierra Madre Area

T. I. Sample #	Your Sample #	Material Analyzed	Isotopic Age (Ma)	⁴⁰ Ar* (scc/gm x 10 ⁻⁵)	% ⁴⁰ Ar*	% K	Notes
KA86-1307	AK051R	Whole Rock	28.4 ± 2.8	.010	23.9	.09	
KA86-1308	AM054R	Whole Rock	31.1 ± 1.5	.010	28.2	.09	
KA86-1309	BE006	Whole Rock	24.3 ± 1.9	.025	46.2	.20	
KA86-1310	BJ052C	Whole Rock	29.8 ± 2.6	.024	50.7	.20	
KA86-1311	CA021	Whole Rock	23.2 ± 1.2	.020	28.0	.21	
KA86-1312	CJ005	Whole Rock	26.4 ± 1.4	.020	31.6	.21	
KA86-1313	DF024	Whole Rock	24.4 ± 1.2	.022	25.5	.18	
KA86-1314	DH057	Whole Rock	22.3 ± 1.1	.020	26.6	.18	
				.048	38.5	.54	
				.050	40.3	.54	
				.049	37.4	.47	
				.048	42.3	.47	
				.064	57.4	.66	
				.063	53.3	.67	
				.101	66.9	1.19	
				.107	69.3	1.19	

Appendix 5 X-Ray Diffraction Chart

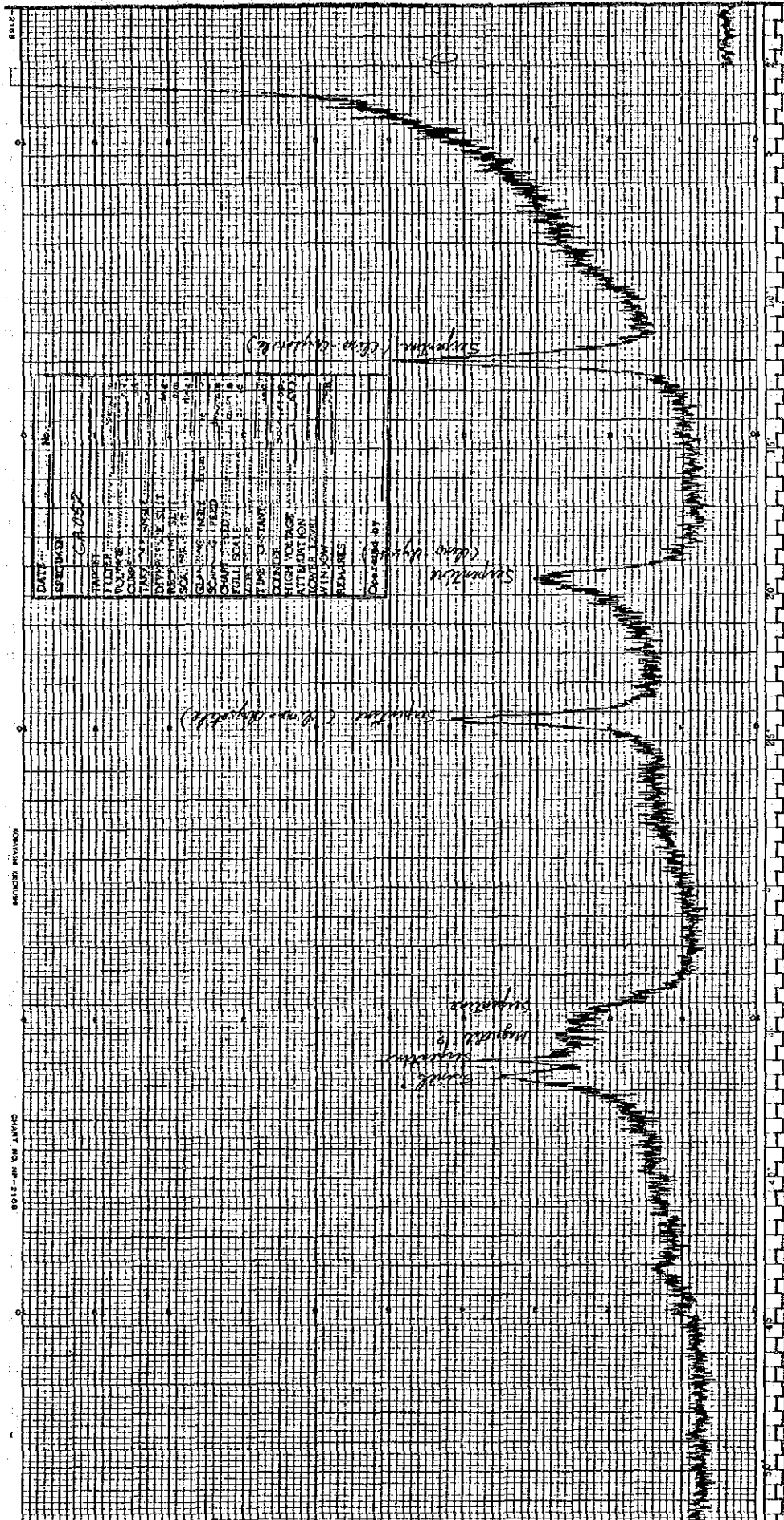
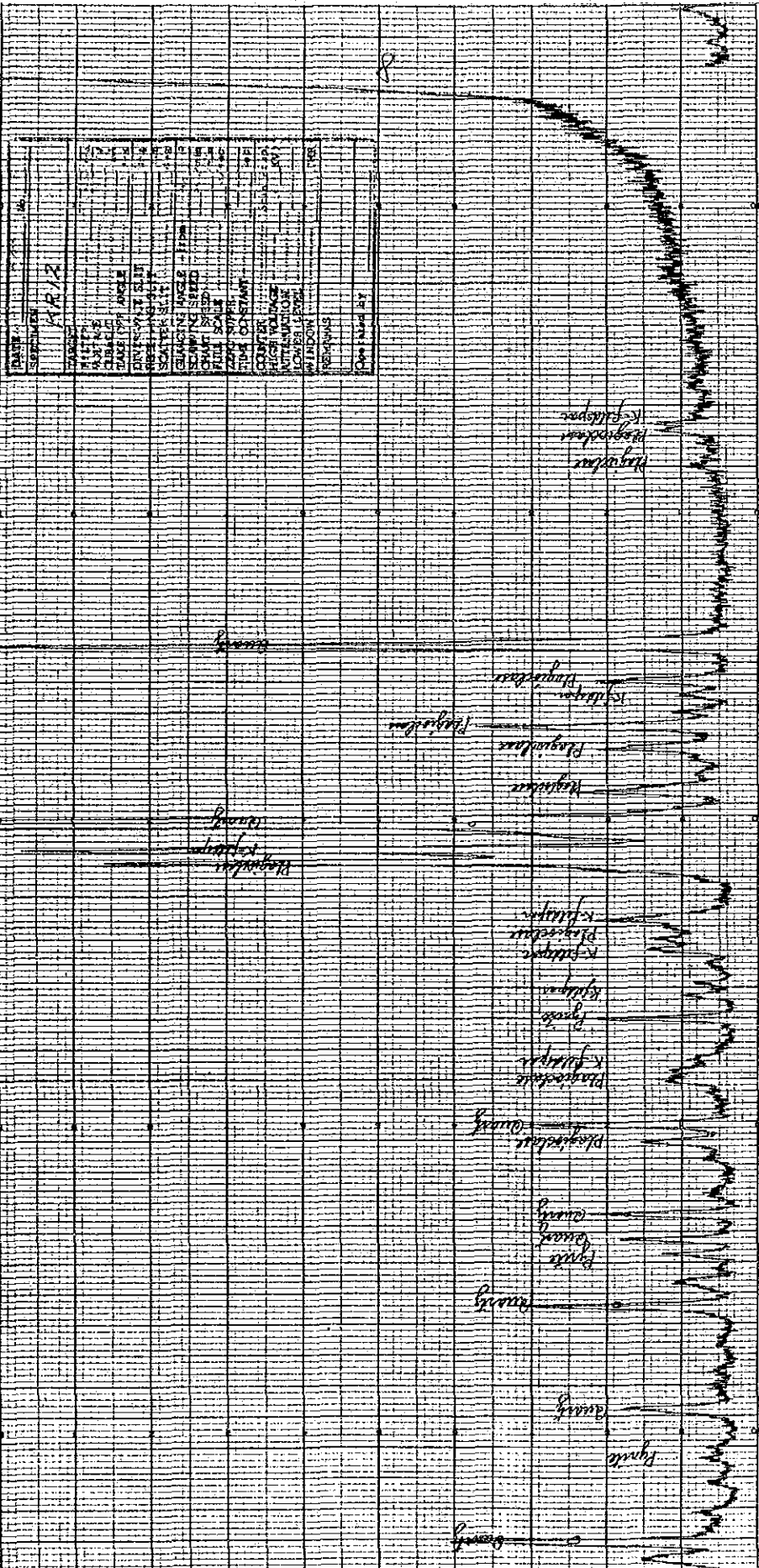
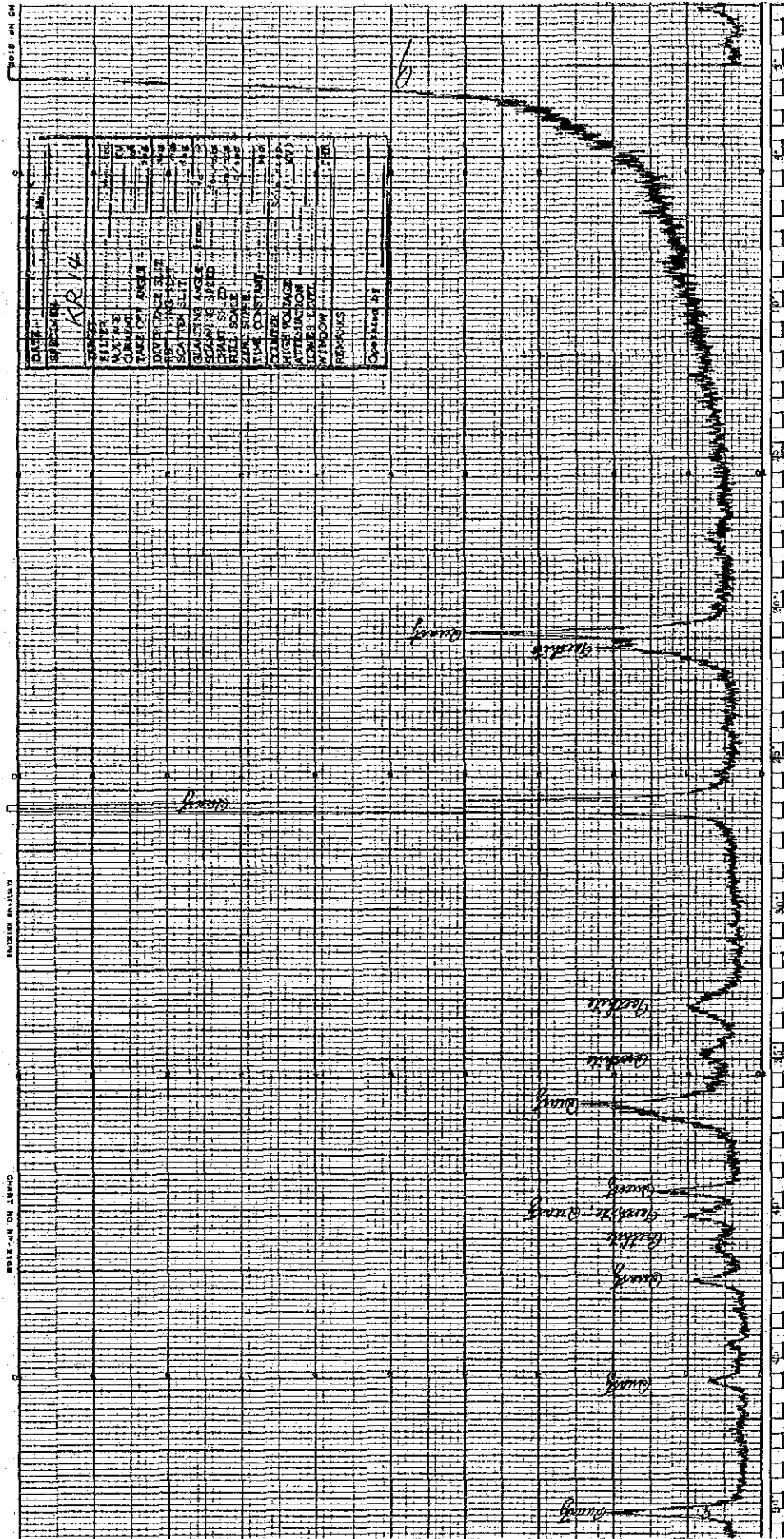
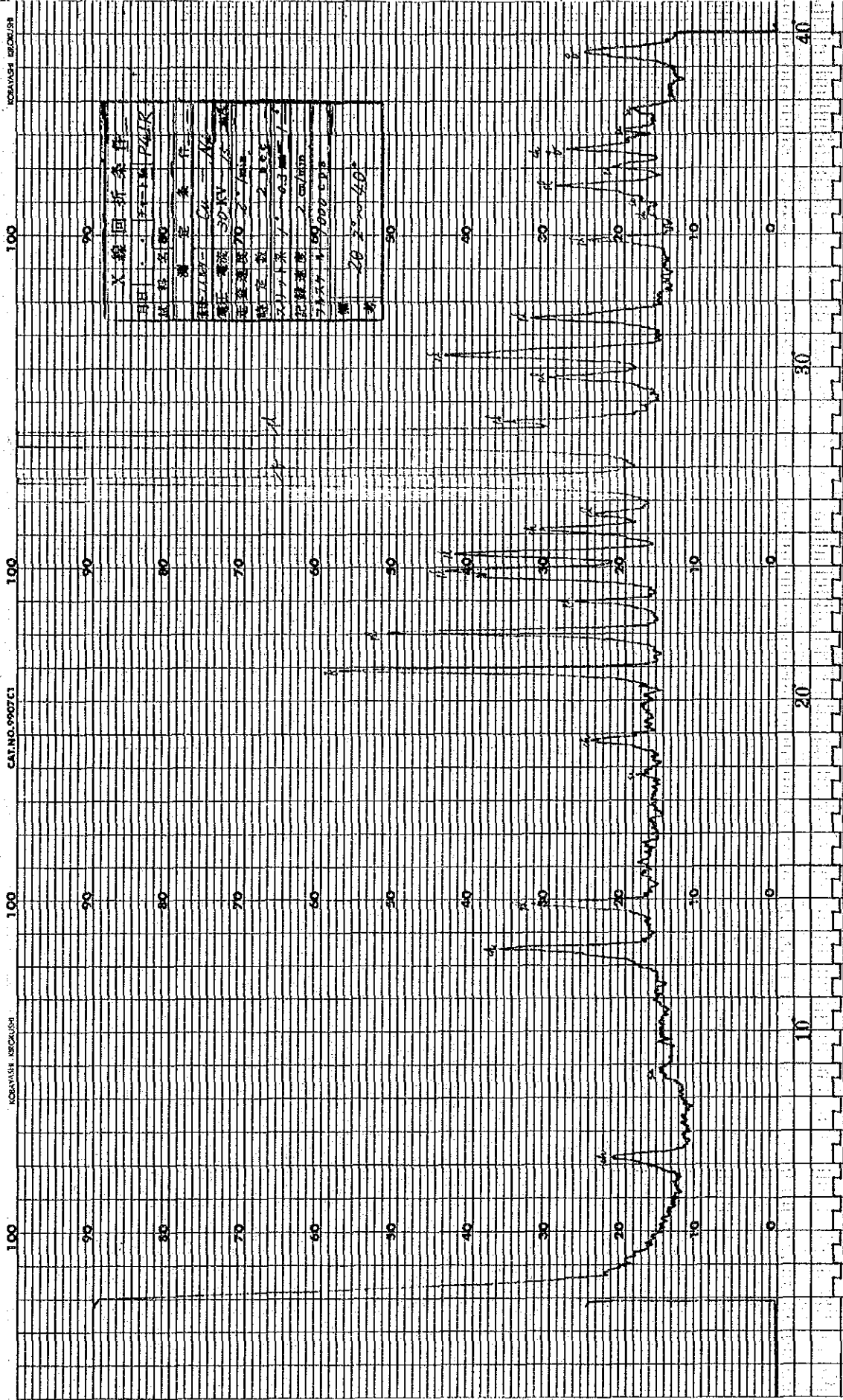


CHART NO. 1188
 CHART
 CHART NO. 1188







X線回折条件
 項目: 材料名: P41R
 測定条件:
 照射管: Cu-K α
 電圧: 40KV
 電流: 15mA
 測定速度: 2.000 cps
 検出器: 2.000 cps
 測定時間: 2.000 cps
 測定位置: 2.000 cps
 測定温度: 2.000 cps
 測定湿度: 2.000 cps
 測定圧力: 2.000 cps
 測定速度: 2.000 cps
 測定時間: 2.000 cps
 測定位置: 2.000 cps
 測定温度: 2.000 cps
 測定湿度: 2.000 cps
 測定圧力: 2.000 cps

KOYASHI KRC0054

100

90

80

70

60

50

40

30

20

10

0

100

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20

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