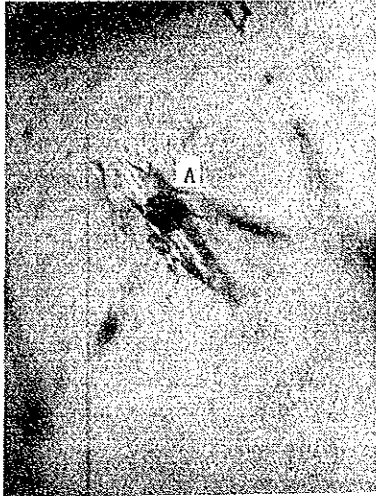


Ap. 8 MICROFOTOGRAFÍAS DE ALGUNAS INCLUSIONES ESTUDIADAS

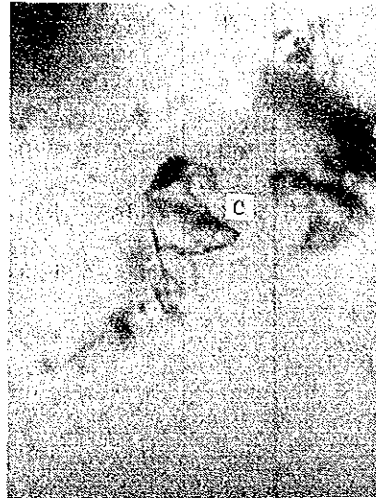
No.	No. de muestra	No. de microfotografía
1	MJA-1 88.35m	(11) (12)
2	MJA-2 150.95m	(13) (14) (15)
3	MJA-2 190.55m	(16) (17) (18)
4	MJA-3 159.35m	(19) (20) (21)
5	MJA-4 123.10m	(1)
6	MJA-5 142.95m	(3) (4)
7	MJA-6 222.65m	(22)
8	MJA-6 223.00m	(23) (24)
9	86-3' 127.35m	(5) (6) (7)
10	86-7 25.25m	(8) (10)

1. MJA-1 88.35m

(11)

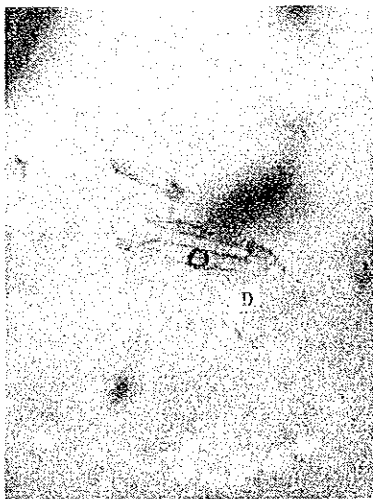


(12)

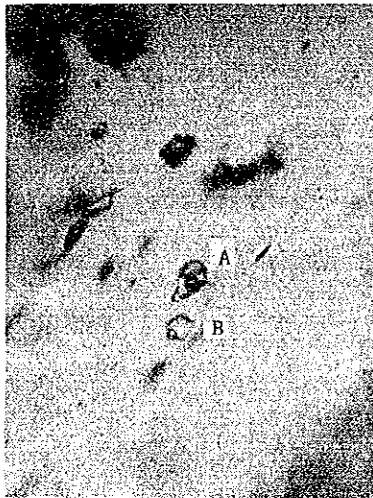


2. MJA-2 150.95m

(13)



(14)



(15)

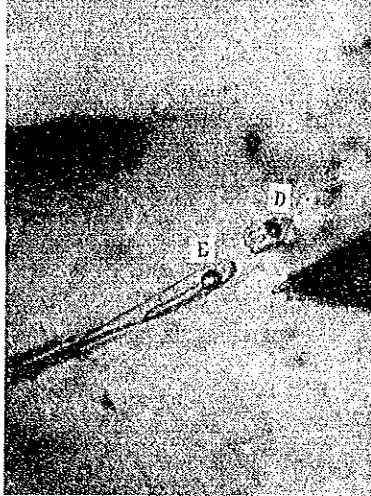


3. MJA-2 190.55m

(16)



(17)

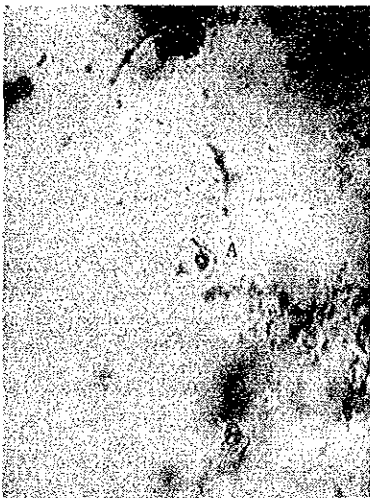


(18)



4. MJA-3 159.35m

(19)



(20)

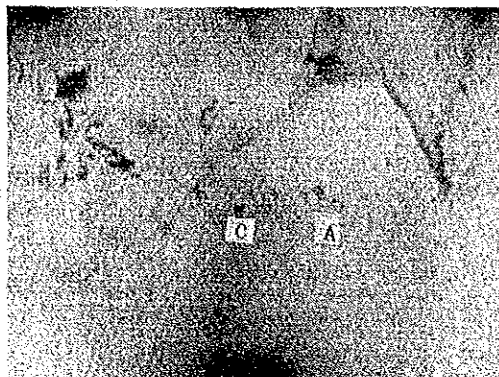


(21)



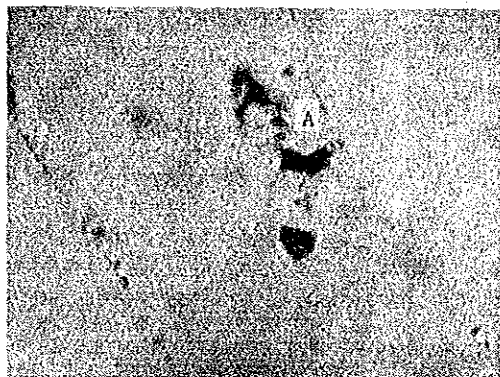
5. MJA-4 123.10m

(1)

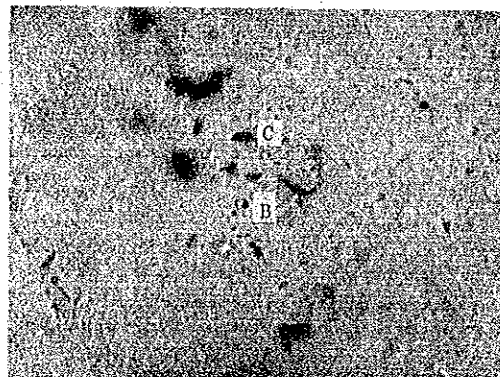


6. MJA-5 142.95m

(3)

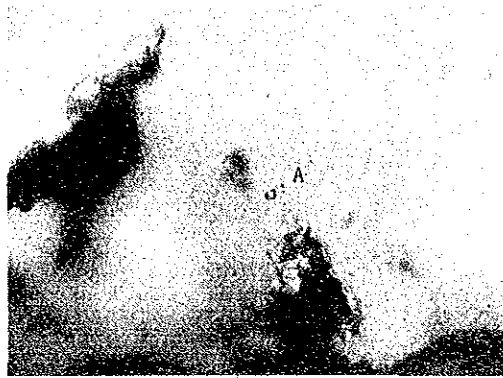


(4)



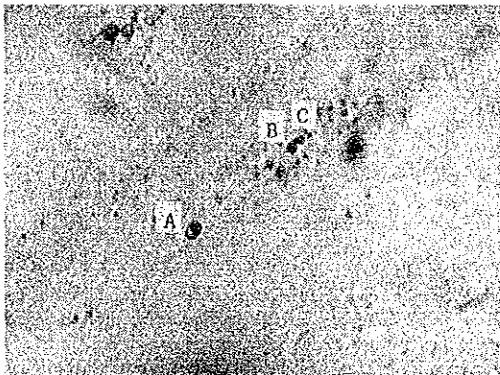
7. MJA-6 222.65m

(22)

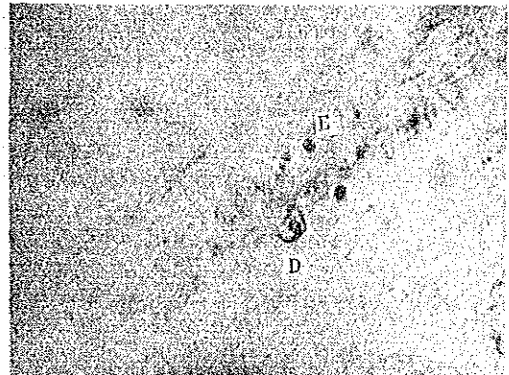


8. MJA-6 223.00m

(23)

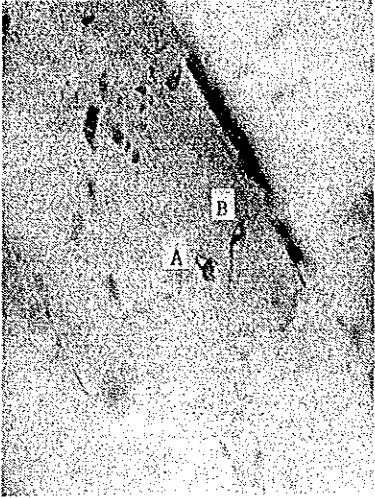


(24)

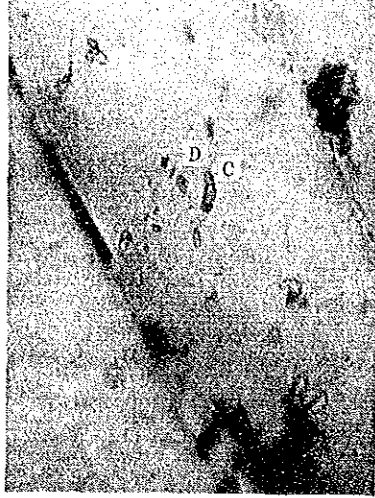


9. 86-3' 127.35m

(5)



(6)

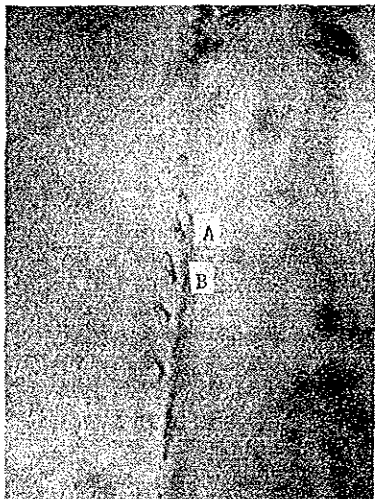


(7)

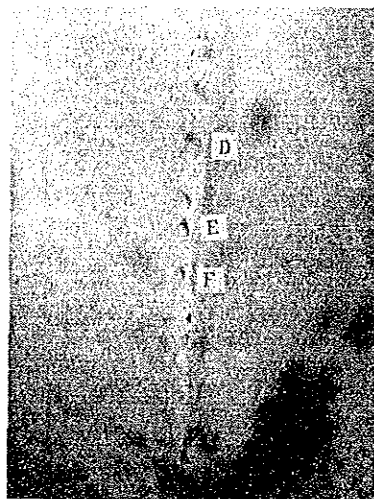


10. 86-7 25.25m

(8)



(10)



Ap. 9 LISTA DE LOS RESULTADOS DE DIFRACCION RAYOS X

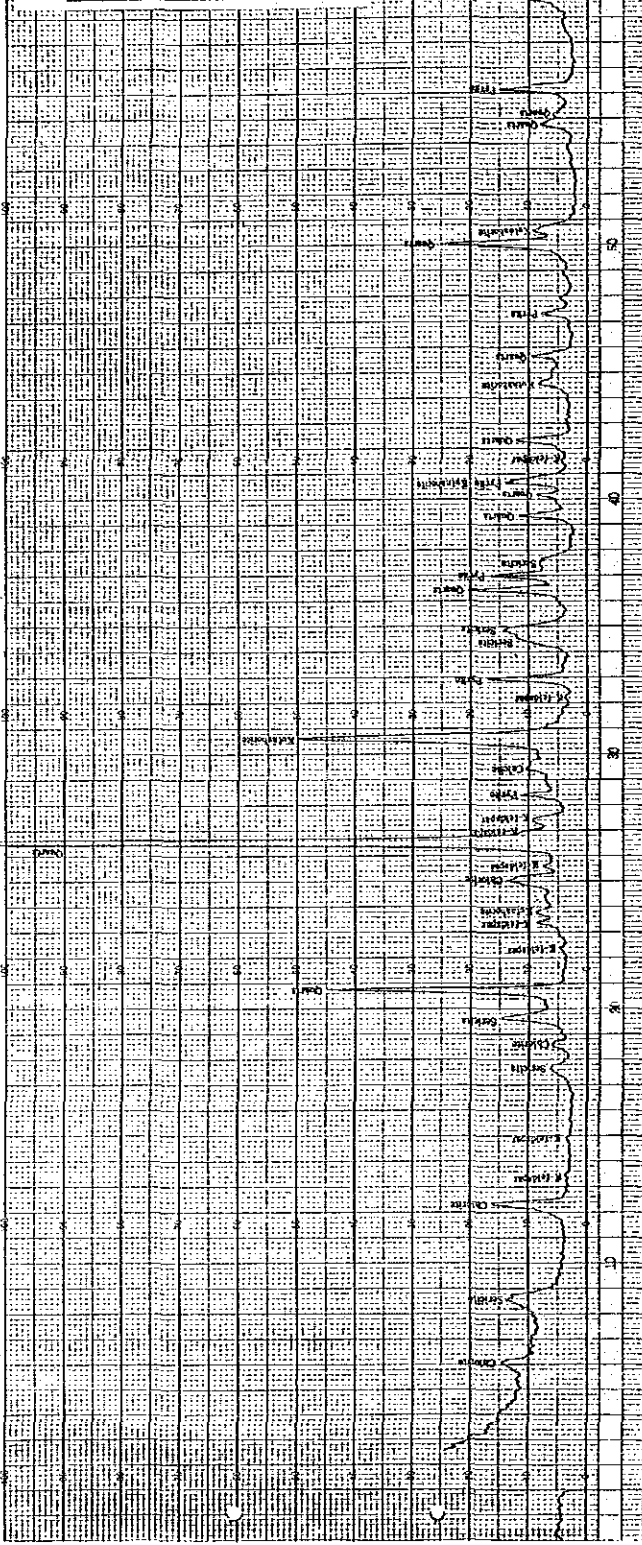
No.	No. de muestra	Minerales		Cuarzo	Plagioclasa	Feldespato K	Calcita	Kutnaborite	Ankerita	Rodocrosita	Anatasa	Talco	Yeso	Clorita	Sericita	Caolinita	Smeclita	Pirita
		Tipo de roca																
1	MJA-1 176.00m	Monzonita arcilla		4		2	1	3						2	2			2
2	MJA-2 170.30m	Veta		4			1	4				3					2	
3	" 181.30m	"		4			1	2				3					2	
4	MJA-3 150.35m	Monzonita arcilla		4	2		1	3					2	3	2			2
5	" 197.10m	Monzonita		4		3	3	2		2				3	2			2
6	MJA-4 110.30m	Monzonita arcilla		3	2	4	3					1			2	2	4	2
7	MJA-5 135.30m	Monzonita		4		2	2	2					2	2	2			2
8	MJA-6 225.00m	Veta		4										1	1			3
9	AB-1 No32	Veta de óxidos de manganeso con carbonatos escaso cuarzo		2			3						1		2	2	2	1
10	AB-1 No54	"		4			4								2	2	1	

Cantidad : 4 Abundante 3 Medio 2 Poco 1 Escaso

Ap. 10 LAS CARTAS DE DIFRACCION RAYOS X

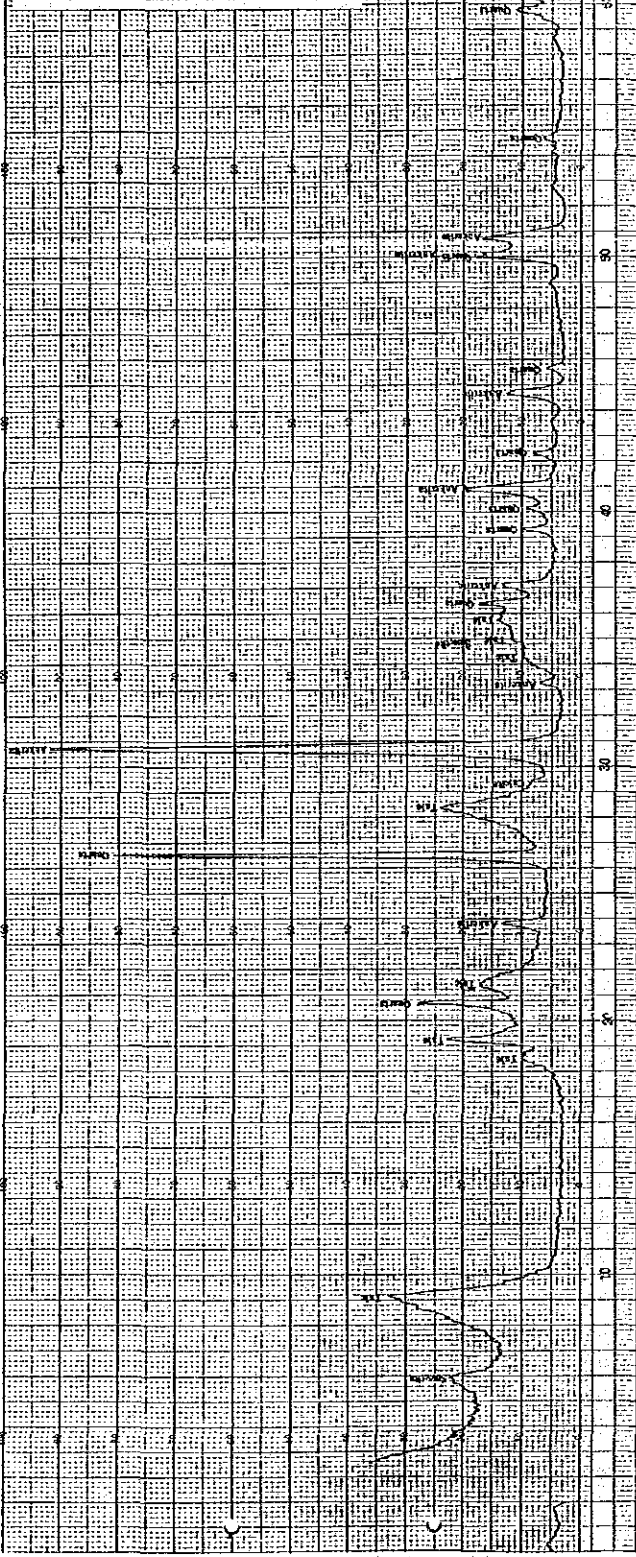
X-Ray Diffractometer

Sample No	MJA-176.00m
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 $\frac{2\theta}{min}$
Chart Speed	1 $\frac{cm}{min}$
Divergency	5 $^{\circ}$
Receiving Slit	0.15 mm
Detector	S.C
Date	6.1988



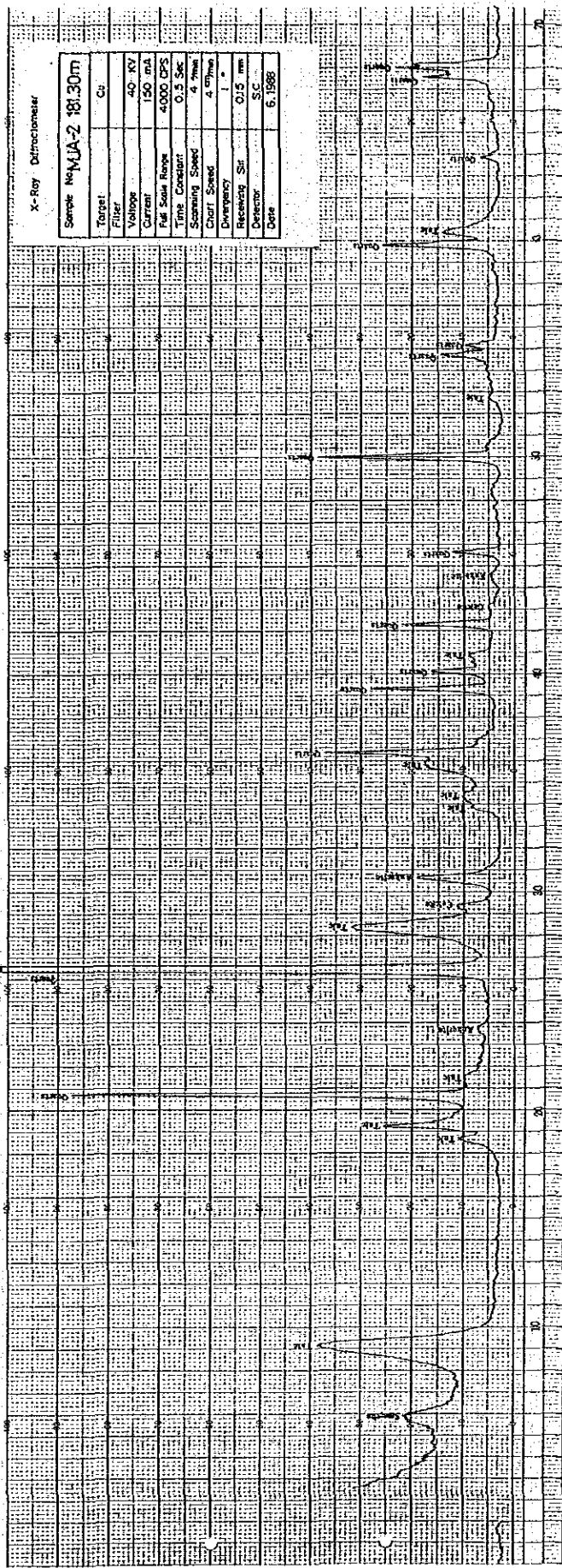
X-Ray Diffractometer

Sample No	MJA-2170.30m
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 $\frac{2\theta}{min}$
Chart Speed	1 $\frac{cm}{min}$
Divergency	5 $^{\circ}$
Receiving Slit	0.15 mm
Detector	S.C
Date	6.1988



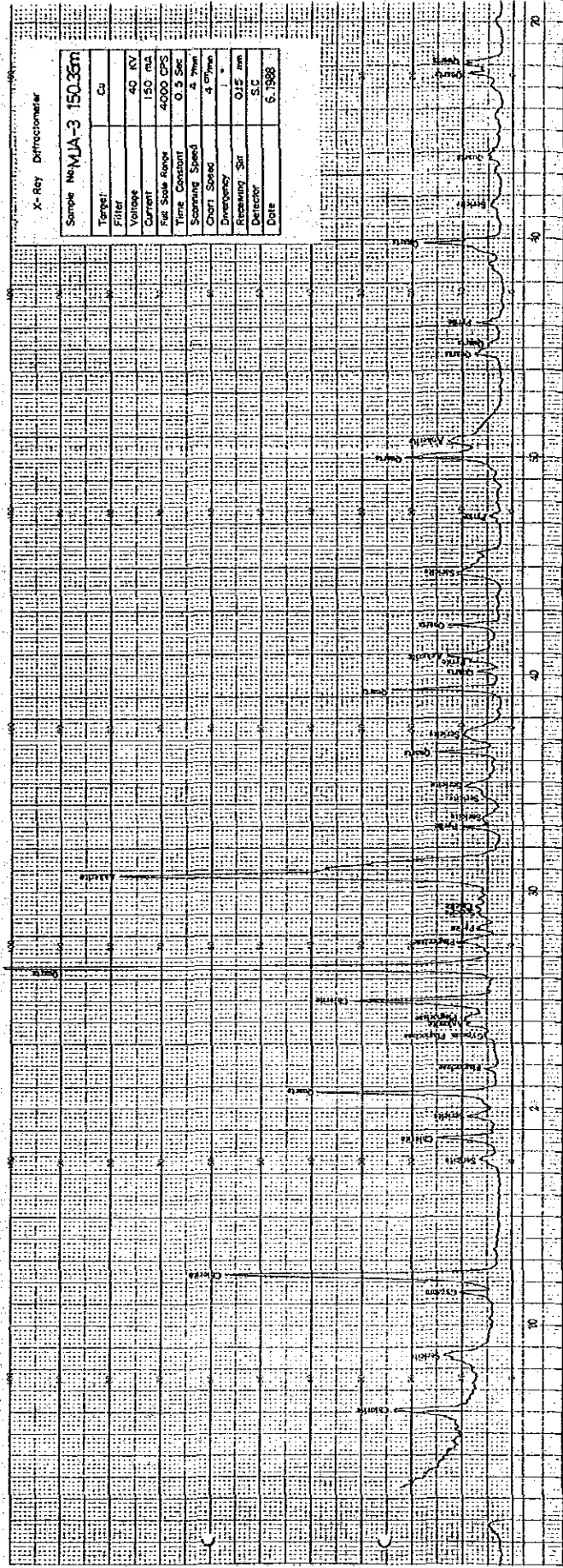
X-Ray Diffractometer

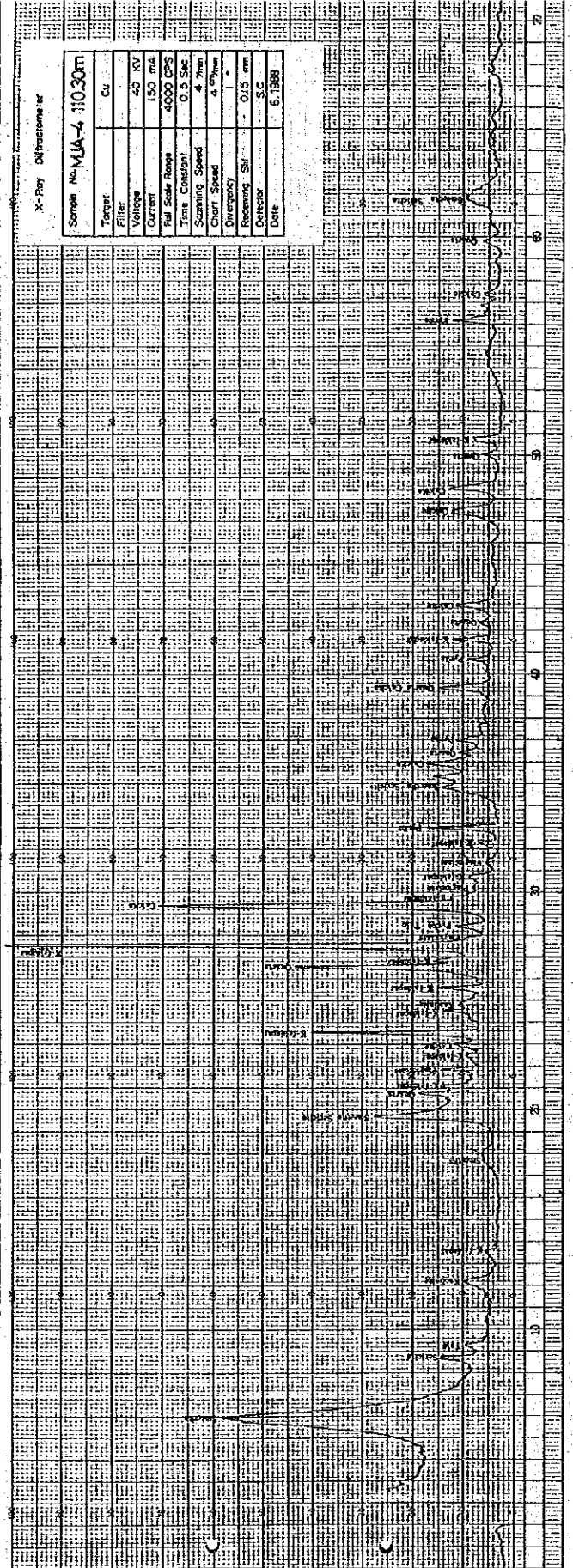
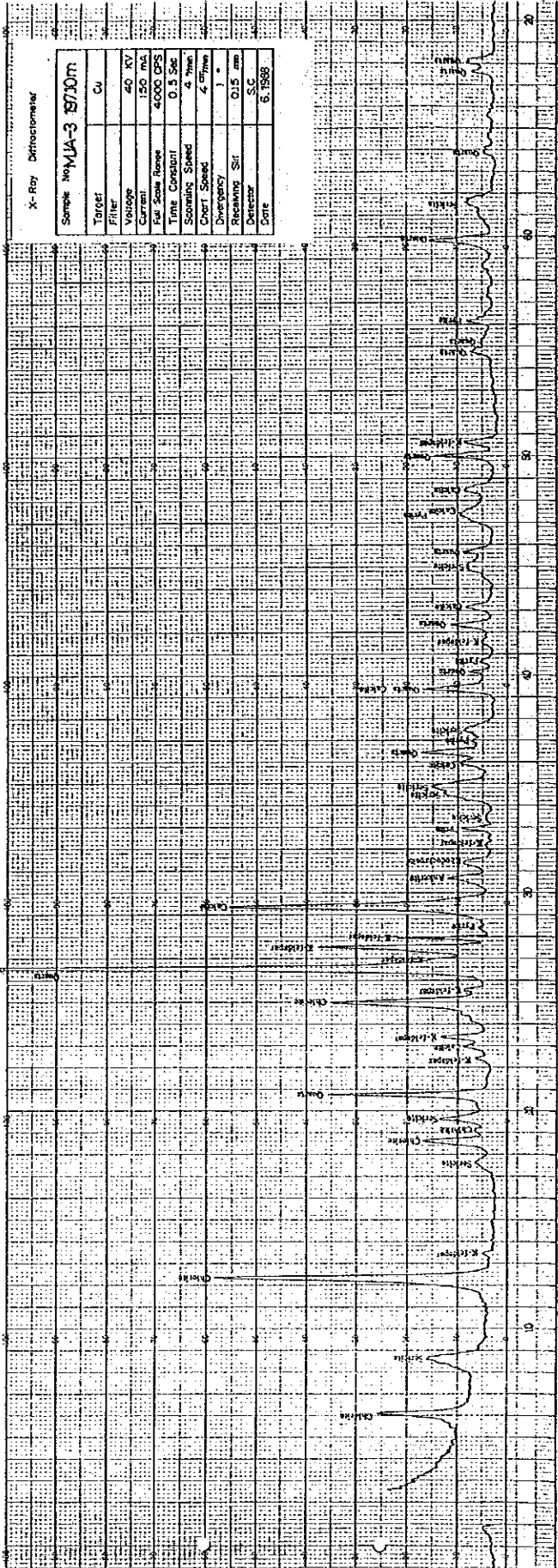
Sample No	MJA-2 181.30M
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 7mm
Chart Speed	4 7mm
Divergency	1 °
Receiving Slit	0.15 mm
Detector	S.C
Date	6.1968

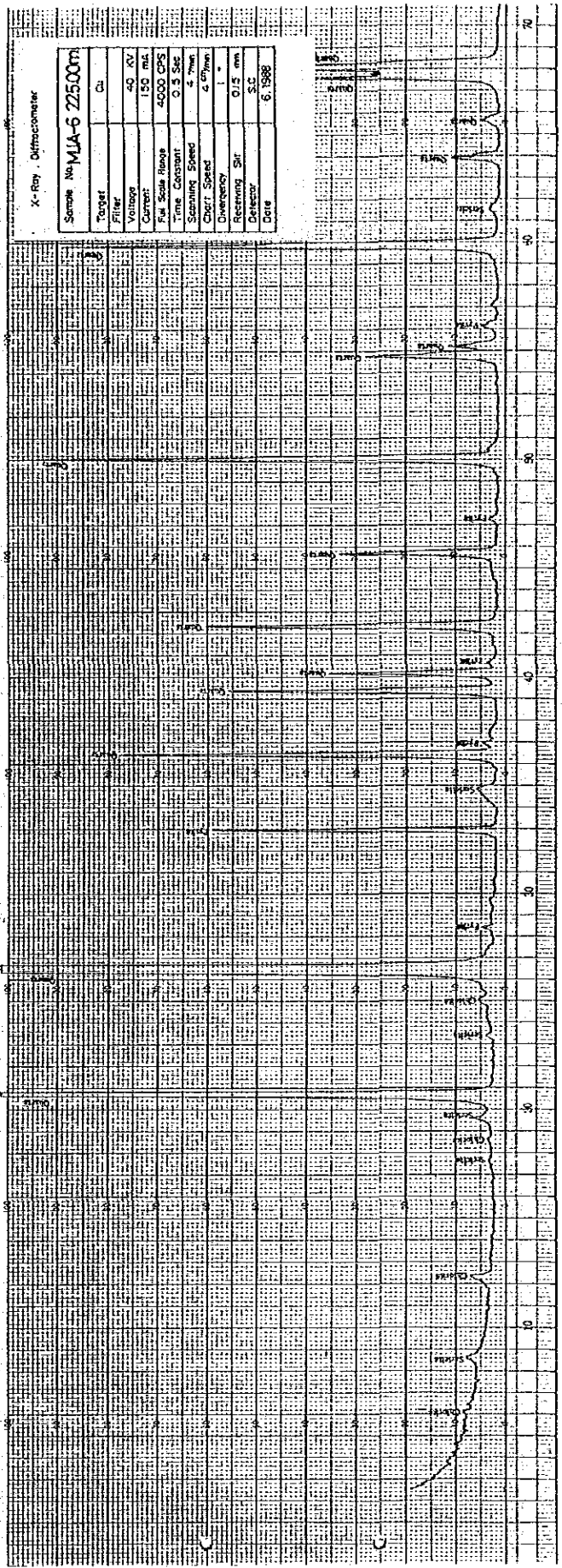
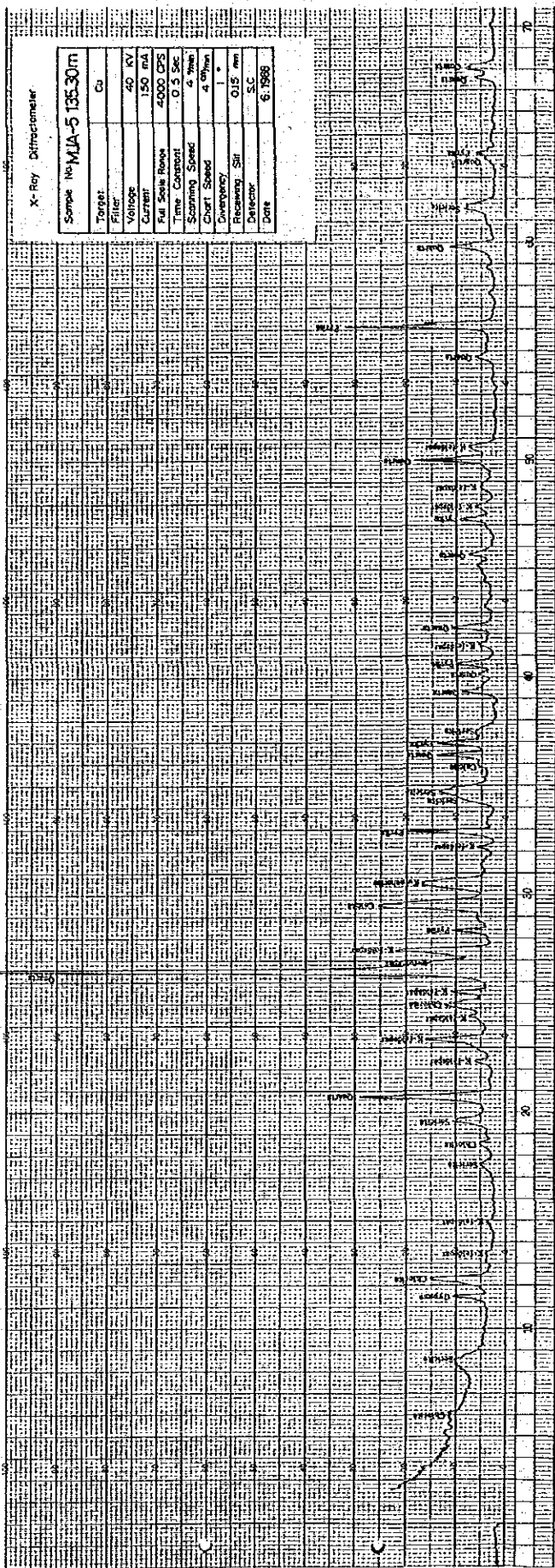


X-Ray Diffractometer

Sample No	MJA-3 150.33M
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Full Scale Range	4000 CPS
Time Constant	0.5 Sec
Scanning Speed	4 7mm
Chart Speed	4 7mm
Divergency	1 °
Receiving Slit	0.15 mm
Detector	S.C
Date	6.1968

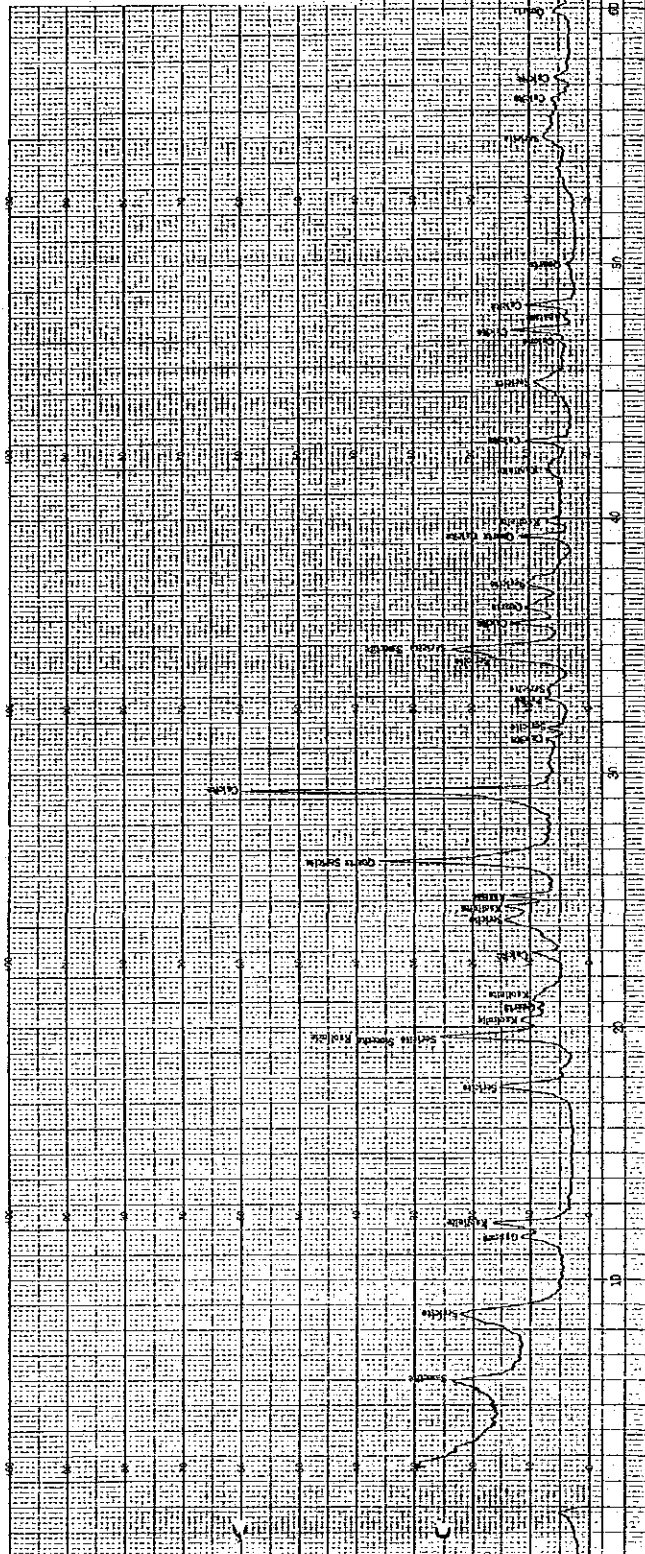






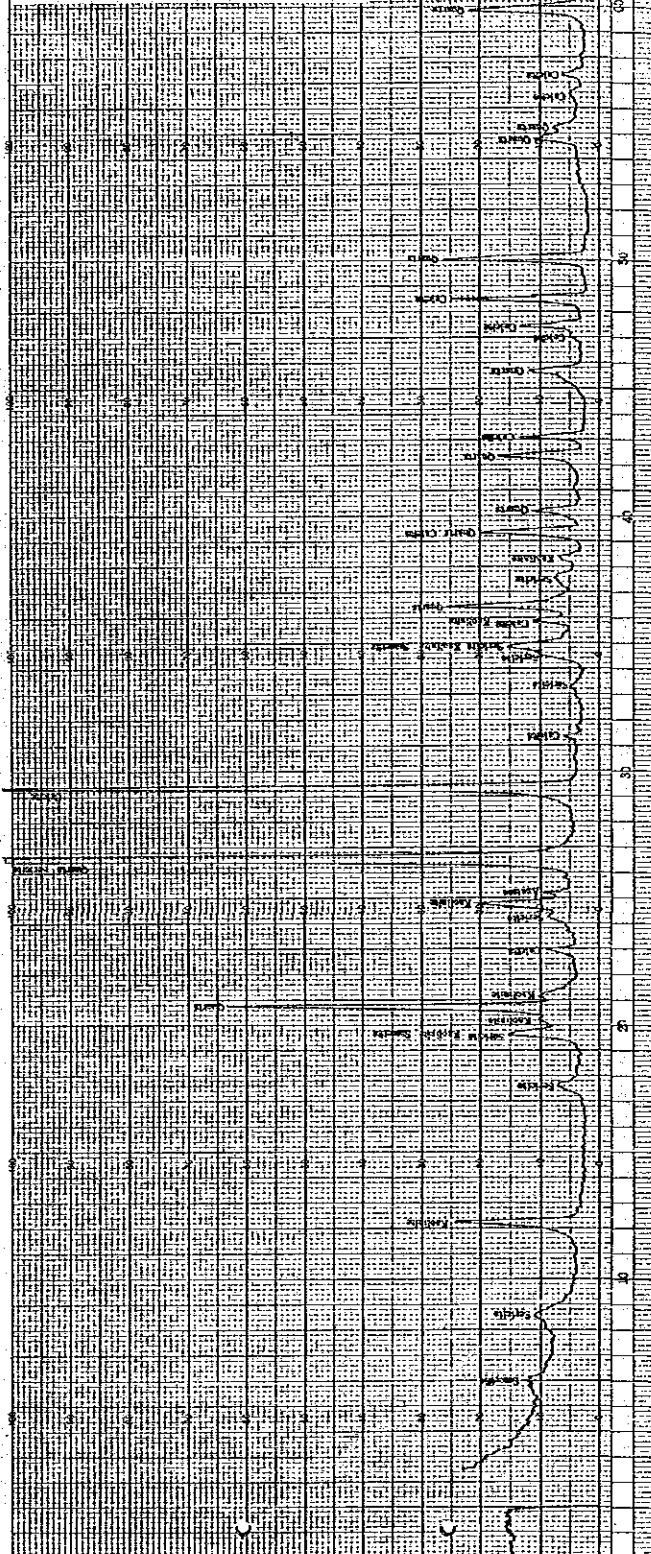
X-Ray Diffractometer

Sample No	AB-1 No.32
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Ex. Scale Range	4000 CPS
Time Constant	0.3 Sec
Scanning Speed	4 θ /min
Chart Speed	4 θ /min
Divergency	1 $^\circ$
Receiving Slit	0.15 mm
Detector	S.C.
Date	6.1968



X-Ray Diffractometer

Sample No	AB-1 No.54
Target	Cu
Filter	
Voltage	40 KV
Current	150 mA
Ex. Scale Range	4000 CPS
Time Constant	0.3 Sec
Scanning Speed	4 θ /min
Chart Speed	4 θ /min
Divergency	1 $^\circ$
Receiving Slit	0.15 mm
Detector	S.C.
Date	6.1968



Ap. II RESULTADOS DE LOS ANALISIS QUIMICOS DE LAS MUESTRAS DE MENA

(1)

No.	Número de Muestra	Profundidad (m)	Longitud de Muestreo(m)	Au(g/t)	Ag(g/t)	Mn(%)
1	MJA-1- 1	13.60~ 14.60	1.00	3.2	35.2	10.7
2	" 2	16.55~ 18.40	1.85	7.8	237.4	5.0
3	" 3	81.55~ 82.75	1.20	1.1	9.3	7.0
4	" 4	82.75~ 84.10	1.35	1.7	20.5	6.2
5	" 5	84.10~ 87.40	3.30	0.78	6.6	6.4
6	" 6	87.40~ 88.65	1.25	1.0	23.9	5.0
7	" 7	88.65~ 89.40	0.75	1.1	13.1	4.5
8	" 8	89.40~ 91.45	2.05	0.38	7.2	3.7
9	" 9	91.45~ 93.50	2.05	1.7	12.6	5.0
10	" 10	93.50~ 95.10	1.60	0.82	7.6	5.9
11	" 11	95.10~ 96.25	1.15	2.1	17.9	6.8
12	" 12	96.25~ 97.60	1.35	0.54	4.1	5.0
13	" 13	100.30~101.90	1.60	0.70	5.2	5.0
14	" 14	106.50~109.55	3.05	4.9	29.6	5.0
15	" 15	109.55~111.80	2.25	3.4	12.9	7.1
16	" 16	117.80~119.10	1.30	2.0	45.1	6.4
17	" 17	120.95~123.15	2.20	5.5	171.7	8.2
18	" 18	123.15~125.00	1.85	1.5	54.3	8.0
19	" 19	125.00~126.10	1.10	4.6	184.0	4.6
20	" 20	132.35~132.80	0.45	2.0	88.7	4.8
21	" 21	159.80~161.50	1.70	10.5	128.3	6.2
22	" 22	171.20~173.15	1.95	8.8	83.2	2.7
23	MJA-2- 1	34.25~ 34.65	0.40	0.27	8.8	4.4
24	" 2	91.00~ 92.70	1.70	1.3	59.7	7.8
25	" 3	103.05~104.70	1.65	1.0	11.5	7.0
26	" 4	107.10~108.35	1.25	0.50	7.0	4.9
27	" 5	108.35~110.70	2.35	0.80	24.3	7.5
28	" 6	110.70~113.10	2.40	0.35	10.7	8.0
29	" 7	116.60~118.15	1.55	0.42	9.6	3.6
30	" 8	118.15~118.95	0.80	0.17	6.4	8.0
31	" 9	118.95~120.05	1.10	3.3	38.7	5.2
32	" 10	121.40~123.20	1.80	0.76	9.1	7.9
33	" 11	123.20~125.10	1.90	0.30	3.9	8.0
34	" 12	125.10~127.50	2.40	0.30	4.1	7.2
35	" 13	127.50~130.50	3.00	2.6	49.2	6.4
36	" 14	147.80~148.20	0.40	2.5	47.8	10.7
37	" 15	148.20~149.80	1.60	4.3	51.9	8.1
38	" 16	149.80~150.95	1.15	1.8	18.0	7.0
39	" 17	150.95~153.10	2.15	14.5	165.6	8.0
40	" 18	153.10~155.05	1.95	0.8	40.0	13.6
41	" 19	155.05~156.30	1.25	0.72	56.9	10.1
42	" 20	156.30~157.70	1.40	2.9	65.3	6.0
43	" 21	157.70~160.40	2.70	1.7	139.7	11.7
44	" 22	160.40~161.25	0.85	2.4	96.5	7.2
45	" 23	161.25~164.95	3.70	2.8	61.4	5.8
46	" 24	164.95~167.35	2.40	52.8	883.2	6.1
47	" 25	167.35~169.85	2.50	0.18	31.8	11.2
48	" 26	169.85~171.60	1.75	0.48	81.6	8.7
49	" 27	171.60~174.60	3.00	3.4	38.2	6.6
50	" 28	174.60~176.80	2.20	3.3	32.3	9.9
51	" 29	176.80~178.25	1.45	5.6	30.0	10.3
52	" 30	178.25~180.30	2.05	1.7	41.5	10.3
53	" 31	180.30~183.05	2.75	0.64	61.1	12.2
54	" 32	183.05~184.75	1.70	2.4	30.1	9.5
55	" 33	184.75~186.35	1.60	3.1	57.9	11.8
56	" 34	186.35~188.05	1.70	7.8	100.0	16.2
57	" 35	188.05~190.90	2.85	7.6	81.4	8.7
58	" 36	190.90~193.50	2.60	0.67	47.9	12.1
59	" 37	193.50~195.05	1.55	0.21	27.1	10.3
60	" 38	195.05~196.60	1.55	0.61	24.9	6.7

(2)

No.	Número de Muestra	Profundidad (m)	Longitud de Muestreo(m)	Au (g/t)	Ag (g/t)	Mn (%)
61	MJA-2-39	196.60~198.55	1.95	0.9	40.1	11.1
62	" 40	198.55~201.35	2.80	0.25	20.1	10.8
63	" 41	201.35~202.65	1.30	0.46	26.2	7.8
64	MJA-3- 1	151.60~152.10	0.50	0.56	66.3	7.3
65	" 2	152.10~152.70	0.60	1.6	89.1	2.8
66	" 3	152.70~154.10	1.40	1.7	55.1	5.8
67	" 4	154.10~155.85	1.75	3.4	478.7	18.7
68	" 5	155.85~157.60	1.75	0.64	90.2	4.0
69	" 6	157.60~158.40	0.80	2.0	70.0	8.3
70	" 7	158.40~160.00	1.60	22.4	150.0	14.5
71	" 8	160.00~162.00	2.00	5.1	60.3	18.4
72	" 9	162.00~163.70	1.70	5.7	30.8	23.7
73	" 10	163.70~165.90	2.20	3.2	56.6	11.7
74	" 11	166.45~167.35	0.90	0.47	56.5	12.6
75	" 12	167.70~170.55	2.85	0.28	27.4	13.9
76	" 13	170.55~171.75	1.20	0.26	8.6	3.8
77	" 14	171.75~173.05	1.30	0.44	29.2	12.5
78	" 15	176.20~177.45	1.25	2.3	31.4	5.4
79	MJA-4- 1	114.40~116.45	2.05	8.8	289.2	18.2
80	" 2	116.45~117.90	1.45	2.7	112.2	7.4
81	" 3	117.90~119.70	1.80	9.1	95.2	11.0
82	" 4	119.70~120.55	0.85	3.0	75.1	8.8
83	" 5	120.55~121.65	1.10	72.2	652.8	22.4
84	" 6	121.65~122.10	0.45	1.8	67.6	10.2
85	" 7	122.10~123.25	1.15	15.3	39.8	10.0
86	" 8	123.25~123.65	0.40	1.0	14.2	5.9
87	" 9	125.80~127.25	1.45	3.5	64.1	4.4
88	" 10	129.15~129.80	0.65	1.6	33.0	6.7
89	" 11	131.65~132.10	0.45	3.6	25.9	4.1
90	" 12	132.10~132.90	0.80	3.8	24.5	1.8
91	" 13	132.90~134.55	1.65	0.97	10.5	3.0
92	MJA-5- 1	139.95~141.10	1.15	6.0	58.3	11.0
93	" 2	141.10~142.95	1.85	1.9	75.7	10.9
94	" 3	142.95~144.10	1.15	5.9	573.2	18.8
95	" 4	144.10~144.60	0.50	0.34	38.4	33.0
96	" 5	144.60~145.15	0.55	4.3	37.1	6.5
97	" 6	145.15~146.60	1.45	2.2	38.2	4.1
98	MJA-6- 1	208.65~209.60	0.95	268.5	224.9	9.9
99	" 2	209.60~210.75	1.15	5.5	23.6	10.4
100	" 3	210.75~212.05	1.30	0.6	21.8	6.7
101	" 4	212.05~213.05	1.00	1.1	10.1	3.8
102	" 5	213.05~214.35	1.30	6.7	38.5	9.8
103	" 6	214.35~215.20	0.85	1.6	11.4	13.1
104	" 7	215.20~215.80	0.60	1.6	34.0	26.6
105	" 8	216.30~217.10	0.80	1.4	28.6	14.4
106	" 9	217.10~217.90	0.80	0.66	55.5	3.8
107	" 10	217.90~219.15	1.25	1.6	34.0	2.4
108	" 11	219.15~221.00	1.85	0.72	11.3	10.2
109	" 12	222.10~223.35	1.25	3.0	17.0	2.4
110	" 13	223.35~225.20	1.85	6.0	27.0	1.5
111	" 14	227.50~230.00	2.50	1.2	12.0	3.6

(3)

No.	Número de Muestra	Potencia real (m)	Au (g/t)	Ag (g/t)	Mn (%)
112	AB-1- 1	0.85	7.8	347.6	2.2
113	" 2	0.60	9.0	233.5	5.1
114	" 3A	0.40	2.7	111.5	4.6
115	" 3B	0.45	6.8	134.9	1.9
116	" 4A	0.75	0.72	70.7	1.0
117	" 4B	1.00	0.76	26.5	1.0
118	" 5A	0.30	2.0	142.4	6.9
119	" 5B	0.60	0.48	6.1	1.0
120	" 6A	0.25	0.72	5.4	2.8
121	" 6B	0.70	2.7	24.2	3.4
122	" 7A	0.22	20.3	597.9	3.4
123	" 7B	0.35	0.32	5.8	1.9
124	" 8	0.40	0.34	7.2	1.0
125	" 9A	0.3	1.1	54.0	3.6
126	" 9B	0.20	17.2	503.5	1.8
127	" 10A	0.2	0.30	12.1	1.5
128	" 10B	0.30	0.30	7.5	1.4
129	" 11A	0.20	0.70	7.8	4.0
130	" 11B	0.30	1.1	44.2	2.0
131	" 12	0.25	0.50	6.6	2.1
132	" 13	0.40	0.66	11.0	1.5
133	" 14	0.30	3.2	118.8	3.7
134	" 15	0.25	1.2	32.3	3.0
135	" 16	0.25	1.6	43.4	5.9
136	" 17	0.35	1.2	31.8	2.1
137	" 18	0.60	10.2	182.9	3.0
138	" 19A	0.30	8.5	246.1	6.7
139	" 19B	0.70	7.0	337.8	2.2
140	" 20	0.20	15.7	489.0	3.8
141	" 21	0.70	2.0	110.8	5.7
142	" 22A	0.83	4.0	126.0	5.4
143	" 22B	0.31	0.44	10.6	1.8
144	" 23	0.40	0.72	42.1	5.2
145	" 24	0.90	4.5	191.1	5.9
146	" 25	0.43	9.2	320.6	9.8
147	" 26	0.35	4.8	181.0	7.8
148	" 27	0.35	3.2	251.6	6.6
149	" 28	0.45	3.6	154.6	6.7
150	" 29	0.40	2.7	149.8	8.3
151	" 30	0.35	4.9	162.8	4.2
152	" 31	0.90	4.6	160.7	3.7
153	" 32	0.35	1.3	51.1	4.1
154	" 33	0.95	2.2	86.3	3.5
155	" 34	0.25	6.8	182.7	3.1
156	" 35	0.80	0.96	25.0	3.5
157	" 36	0.30	3.0	140.6	3.1
158	" 37	0.30	1.0	20.4	2.8
159	" 38	0.60	2.2	53.0	2.8

(4)

No.	Número de Muestra	Potencia real (m)	Au (g/t)	Ag (g/t)	Mn (%)
160	AB-1-39	0.40	1.0	34.0	3.6
161	" 40	0.26	1.2	61.0	2.2
162	" 41	0.40	1.9	115.1	1.0
163	" 42	0.20	2.8	48.2	1.5
164	" 43	0.33	0.48	11.2	1.9
165	" 44	0.30	1.4	39.3	2.6
166	" 45	0.40	8.4	136.6	4.4
167	" 46	0.90	30.4	738.3	5.7
168	" 47	0.70	8.8	174.6	3.8
169	" 48	0.60	10.3	210.7	2.7
170	" 49	0.40	7.7	235.6	1.2
171	" 50	0.60	6.8	255.1	6.7
172	" 51	0.40	2.1	45.9	2.2
173	" 52	0.35	2.0	142.2	6.1
174	" 53	0.83	1.7	77.7	5.6
175	" 54	0.63	1.8	135.8	7.3
176	" 55	0.43	1.6	19.0	1.1
177	" 56	0.40	4.4	307.1	7.2
178	" 57	0.30	3.7	134.4	4.7
179	" 58	0.35	7.6	456.1	10.1
180	" 59	0.50	5.1	173.9	4.8
181	" 60	0.40	12.6	443.3	6.7
182	" 61	0.43	0.6	25.2	2.9
183	" 62	0.40	2.9	105.7	5.5
184	" 63	0.30	1.3	48.3	2.4
185	" 64	0.30	5.4	207.3	7.8
186	" 65	0.15	3.2	119.4	5.7
187	" 66	0.46	2.3	90.8	5.0
188	" 67	0.35	1.6	42.1	3.4
189	" 68	0.33	2.4	149.4	6.7
190	" 69	0.35	1.8	69.7	3.3
191	" 70	0.30	2.9	134.0	6.9
192	" 71	0.60	12.3	148.9	4.3

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