```
SPECTRUM DISK INT

PROGRAM=
* 1314* RTS2/FLS REV02.00-LINK SYSTEMS LTD.-1980

TILT=35.00/  ELEVATION=  .00/  AZIMUTHAL ANGLE=  .00/
COSINE=1.000/  KV=120.00/
EV/CH=20/  CALIBRATION ELMT:CU/  PEAK ENERGY(KEV)=  8.0400/
RATIO STD.ELMT:SI/  LINE:K /
LABEL(20 CHAR. MAX.):

PROGRAM= 1

E.D.S. ANALYSIS? YES
OPTION=1  LIVETIME=100

ELMT  LINE  STD
 FE     K    3
 SI     K    3
 MN     K    3
 CR     K    3

ANALYSE CU ?YES
                                    LIVETIME=   100
 ENERGY     RES      AREA
   31.8  118.00     76705
 7966.6  191.59     15004
TOTAL AREA=     24002   GF=  49.846

ANALYSE? YES

                                    LIVETIME(SPEC)=   100
 ENERGY     RES      AREA
   33.1  119.38     76488
TOTAL AREA=     18016
......
PEAK AT   8.04 KEV OMITTED?

FIT INDEX= 1.56

ELMT     AREA      ERROR
 FE       4258        148
 SI         38         32* < 2 SIGMA*
 MN        159         95* < 2 SIGMA*
 CR       8427        192

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED.NORMALISED

ELMT     OBS.    %CONC.   ---   KKSI   CM2/GM  ABS.CORRN.
FE K   34.445    34.800   ---  1.124     381      .887
SI K     .287      .270   ---  1.000    2181     1.000
MN K    1.270     1.260   ---  1.106      77      .871
CR K   64.048    63.670   ---  1.056      97      .873
TOTAL          100.000

BEAM BROADENING ESTIMATE=    21.0 NM
```

NEXT=

EM400T

'30420 Björnson. 84,7? TOP READ A3

1=MORE ANALYSES 2=ADD MORE ELMTS 3=GAIN CALIBRATION
4=CHANGE ELEMENTS(DATA ANALYSIS) 5=SAME ANALYSIS,CHANGE OPTION
6=VIEW DEVIATIONS(MID SCREEN=3.6 SIGMA) 7=AUTO SUMMARY

NEXT=1

ANALYSE? YESBERIT A3 RANDOM

BERIT A3 RANDOM LIVETIME(SPEC)= 100
ENERGY RES AREA
33.8 117.64 75730
TOTAL AREA= 19168
.....
PEAK AT 8.02 KEV OMITTED?

FIT INDEX= 1.13

ELMT	AREA	ERROR
FE	4333	152
SI	23	34* < 2 SIGMA*
MN	138	98* < 2 SIGMA*
CR	8608	200

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=100

2 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: BERIT A3 RANDOM

ALL ELMTS ANALYSED,NORMALISED

ELMT	OBS.	%CONC.	---	KKSI	CM2/GM	ABS.CORRN.
FE K	34.456	34.815	---	1.124	382	.887
SI K	.162	.184	---	1.000	2182	1.000
MN K	1.081	1.073	---	1.106	76	.871
CR K	64.301	63.927	---	1.056	97	.872
TOTAL		100.000				

2c

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=1

ANALYSE? YESA3 MATR
A3 EUTECTIC

A3 EUTECTIC LIVETIME(SPEC)= 100
ENERGY RES AREA
33.9 122.01 75470
TOTAL AREA= 28206
.....
PEAK AT 8.02 KEV OMITTED?

FIT INDEX= 1.84

ELMT	AREA	ERROR
FE	7414	196
SI	84	42* < 2 SIGMA*
MN	314	118
CR	11802	231

TOTAL AREA= 66666

.....

PEAK AT 8.02 KEV OMITTED?

FIT INDEX= 1.84

ELMT	AREA	ERROR
FE	7414	196
SI	34	42* < 2 SIGMA*
MN	314	118
CR	11802	231

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=100

2 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: A3 EUTECTIC

ALL ELMTS ANALYSED,NORMALISED

FLMT	OBS.	%CONC.		KXSI	CM2/GM	ABS.CORRN.
FE K	89.350	89.691	LLL	1.124	310	.884
SI K	.163	.186	LLL	1.000	2160	1.000
MN K	1.608	1.626	LLL	1.106	77	.870
CR K	58.649	58.498	LLL	1.056	98	.871
TOTAL		100.000				

3c

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=1

1.

ANALYSE? YES

LIVETIME(SPEC)= 100

ENERGY	RES	AREA
33.8	119.40	74313

TOTAL AREA= 46381

.....

PEAK AT .70 KEV OMITTED?

PEAK AT 8.02 KEV OMITTED?

FIT INDEX= 3.55

ELMT	AREA	ERROR
FE	25734	349
SI	525	64
MN	239	104
CR	5157	165

matrix ?

1m

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=100

3 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED,NORMALISED

FLMT	OBS.	%CONC.		KXSI	CM2/GM	ABS.CORRN.
FE K	82.267	82.093	LLL	1.124	135	.861
SI K	1.494	1.731	LLL	1.000	2367	1.000
MN K	.752	.748	LLL	1.106	87	.859
CR K	15.487	15.428	LLL	1.056	110	.860
TOTAL		100.000				

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=1

```
ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ...   KKSI   CM2/GM  ABS.CORRN.
FE K   82.267    82.093   ...   1.124    135      .861
SI K    1.494     1.731   ...   1.000   2867     1.000
MN K     .752      .748   ...   1.106     87      .859
CR K   15.487    15.428   ...   1.056    110      .860
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM
```

2.

```
NEXT=1

ANALYSE? YESAS ABOVE

 AS ABOVE                                LIVETIME(SPEC)=    100
 ENERGY     RES       AREA
   84.9   119.45      76288
TOTAL AREA=       6852
......

FIT INDEX=  .70

ELMT     AREA      ERROR
 FE       3780        132
 SI         40         24* < 2 SIGMA*
 MN         83         37* < 2 SIGMA*
 CR        799         62

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  AS ABOVE

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ...   KKSI   CM2/GM  ABS.CORRN.
FE K   82.161    82.107   ...   1.124    138      .861
SI K    .775      .900    ...   1.000   2381     1.000
MN K    .717      .713    ...   1.106     86      .858
CR K   16.328    16.280   ...   1.056    109      .859
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.7 NM
```

2m

3

```
NEXT=
1

ANALYSE? YES

                                        LIVETIME(SPEC)=    100
 ENERGY     RES       AREA
   85.2   118.04      75690
TOTAL AREA=      17722
......
PEAK AT    8.02 KEV OMITTED?

FIT INDEX= 1.47

ELMT     AREA      ERROR
 FE       9687        212
 SI        168         38
 MN        139         63
 CR       2240        107

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100
```

```
   35.2  118.04     75690
TOTAL AREA=     17722
......
PEAK AT    8.02 KEV OMITTED?

FIT INDEX= 1.47

ELMT     AREA      ERROR
 FE       9687        212
 SI        168         38
 MN        139         63
 CR       2240        107

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KKSI   CM2/GM ABS.CORRN.
FE K   80.123   80.000   ---   1.124    143      .862
SI K    1.245    1.441   ---   1.000   2361     1.000
MN K    1.140    1.134   ---   1.106     86      .859
CR K   17.493   17.425   ---   1.056    109      .860
TOTAL          100.000

BEAM BROADENING ESTIMATE=     21.0 NM
```

3m

matrix?

```
NEXT=1

ANALYSE? YES

                                  LIVETIME(SPEC)=    100
 ENERGY     RES      AREA
   34.6  117.68     75158
TOTAL AREA=     28680
......
PEAK AT    8.02 KEV OMITTED?

FIT INDEX= 2.62

ELMT     AREA      ERROR
 FE      15882        275
 SI        311         49
 MN        202         83
 CR       3316        132

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KKSI   CM2/GM ABS.CORRN.
FE K   81.506   81.347   ---   1.124    137      .862
SI K    1.423    1.648   ---   1.000   2365     1.000
MN K    1.025    1.020   ---   1.106     87      .859
CR K   16.046   15.985   ---   1.056    109      .860
TOTAL          100.000

BEAM BROADENING ESTIMATE=     21.0 NM
```

matrix?

4m

SPECTRUM:

ALL ELMTS ANALYSED, NORMALISED

ELMT	OBS.	%CONC.		KKSI	CM2/GM	ABS. CORRN.
FE K	81.506	81.347	LLL	1.124	137	.862
SI K	1.423	1.648	LLL	1.000	2065	1.000
MN K	1.025	1.020	LLL	1.106	87	.859
CR K	16.046	15.985	LLL	1.056	109	.860
TOTAL		100.000				

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=1

ANALYSE? YES

LIVETIME(SPEC)= 100

ENERGY	RES	AREA
34.6	118.21	75376

TOTAL AREA= 28498

.....

PEAK AT 8.02 KEV OMITTED?

FIT INDEX= 1.60

ELMT	AREA	ERROR
FE	7249	195
SI -	14	98* < 2 SIGMA*
MN	469	118
CR	12011	237

DENSITY(GM/CM3)=7.89 THICKNESS(MM)=100

2 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED, NORMALISED

ELMT	OBS.	%CONC.		KKSI	CM2/GM	ABS. CORRN.
FE K	38.167	38.522	LLL	1.124	312	.884
SI K	-.065	-.074	LLL	1.000	2160	1.000
MN K	2.434	2.417	LLL	1.106	77	.870
CR K	59.464	59.135	LLL	1.056	97	.871
TOTAL		100.000				

end. cent ?

4c

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=
1

ANALYSE? YES

LIVETIME(SPEC)= 100

ENERGY	RES	AREA
34.6	118.52	75117

TOTAL AREA= 28407

.....

PEAK AT 8.02 KEV OMITTED?
PEAK AT 8.88 KEV OMITTED?

FIT INDEX= 2.99

ELMT	AREA	ERROR
FE	15236	269
SI	870	52

```
                                        LIVETIME(SPEC)=   100
 ENERGY     RES      AREA
   34.6  118.52     75117
TOTAL AREA=     28407
......
PEAK AT    8.02 KEV OMITTED?
PEAK AT    8.88 KEV OMITTED?

FIT INDEX= 2.99

ELMT     AREA      ERROR
 FE      15286       269
 SI        370        52
 MN        209        88
 CR       3300       131

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 3 ITERATIONS

120.00 KV   TILT=35.00   ELEV.=   .00   AZIM.=   .00   COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED, NORMALISED

ELMT     OBS.     %CONC.    ---   KWSI   CM2/GM  ABS. CORRN.
FE K   80.739    80.544    ---   1.124    139       .862
SI K    1.743     2.016    ---   1.000   2355      1.000
MN K    1.089     1.088    ---   1.106     87       .859
CR K   16.429    16.357    ---   1.056    110       .861
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=1


ANALYSE? YES

                                        LIVETIME(SPEC)=   100
 ENERGY     RES      AREA
   35.0  118.37     74995
TOTAL AREA=     20716
......

FIT INDEX= 1.87

ELMT     AREA      ERROR
 FE       4690       157
 SI         15        35* < 2 SIGMA*
 MN        191       102* < 2 SIGMA*
 CR       9314       206

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV   TILT=35.00   ELEV.=   .00   AZIM.=   .00   COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED, NORMALISED

ELMT     OBS.     %CONC.    ---   KWSI   CM2/GM  ABS. CORRN.
FE K   34.378    34.740    ---   1.124    331       .887
SI K     .098      .112    ---   1.000   2133      1.000
MN K    1.376     1.366    ---   1.106     76       .871
CR K   64.147    63.782    ---   1.056     96       .872
TOTAL           100.000
```

```
 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KKSI   CM2/GM  ABS.CORRN.
FE K    80.763   80.644   ---   1.104    141      .866
SI K     1.172    1.358   ---   1.000   2366     1.000
MN K     1.067    1.062   ---   1.106     86      .859
CR K    16.998   16.936   ---   1.056    109      .860
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM
```

```
NEXT=1


ANALYSE? YES

                                        LIVETIME(SPEC)=    100
 ENERGY     RES      AREA
   39.1   124.22     75290
TOTAL AREA=     61586
......
PEAK AT    8.04 KEV OMITTED?

FIT INDEX= 6.09

ELMT     AREA      ERROR
 FE      15869       289
 SI   -     25        58* < 2 SIGMA*
 MN        689       178
 CR      25601       344

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 2 ITERATIONS

100.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KKSI   CM2/GM  ABS.CORRN.
FE K    39.155   39.511   ---   1.124    312      .884
SI K     -.054    -.062   ---   1.000   2168     1.000
MN K     1.552    1.541   ---   1.106     77      .870
CR K    59.348   59.010   ---   1.056     98      .871
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=
```

6c

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED,NORMALISED

ELMT	OBS.	%CONC.	---	KKSI	CM2/GM	ABS. CORRN.
FE K	34.378	34.740	---	1.124	331	.887
SI K	.098	.112	---	1.000	2133	1.000
MN K	1.376	1.366	---	1.106	86	.871
CR K	64.147	63.782	---	1.056	96	.872
TOTAL		100.000				

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=
1

ANALYSE? YES

LIVETIME(SPEC)= 100

ENERGY	RES	AREA
34.5	117.90	75360

TOTAL AREA= 20936

PEAK AT 8.06 KEV OMITTED?

FIT INDEX= 2.42

ELMT	AREA	ERROR
FE	5041	161
SI -	1	35* < 2 SIGMA*
MN	248	102
CR	9141	205

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=100

2 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED,NORMALISED

ELMT	OBS.	%CONC.	---	KKSI	CM2/GM	ABS. CORRN.
FE K	36.338	36.699	---	1.124	322	.885
SI K	-.007	-.008	---	1.000	2147	1.000
MN K	1.759	1.746	---	1.106	77	.870
CR K	61.911	61.563	---	1.056	97	.872
TOTAL		100.000				

(7c)

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=1

9

ANALYSE? YES

LIVETIME(SPEC)= 100

ENERGY	RES	AREA
33.0	127.74	73815

TOTAL AREA= 62967

PEAK AT .68 KEV OMITTED?
PEAK AT 8.12 KEV OMITTED?
PEAK AT 8.02 KEV OMITTED?

FIT INDEX=11.29

TOTAL 100.000

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=1

ANALYSE? YES

LIVETIME(SPEC)= 100

ENERGY	RES	AREA
33.0	127.74	73815

TOTAL AREA= 62967

.....

PEAK AT .68 KEV OMITTED?
PEAK AT 3.12 KEV OMITTED?
PEAK AT 8.02 KEV OMITTED?

FIT INDEX=11.29 χ^2

ELMT	AREA	ERROR
FE	62734	404
SI	584	73
MN	440	128
CR	7333	198

DENSITY(GM/CM3)=7.89 THICKNESS(MM)=100

3 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM:

ALL ELMTS ANALYSED, NORMALISED

ELMT	OBS.	KCONC.	---	KMSI	CM2/GM	ABS. CORRN.
FE K	80.763	80.644	---	1.124	141	.862
SI K	1.172	1.358	---	1.000	2366	1.000
MN K	1.067	1.062	---	1.106	86	.859
CR K	16.998	16.936	---	1.056	109	.860

TOTAL 100.000

6m

BEAM BROADENING ESTIMATE= 21.0 NM

NEXT=1

ANALYSE? YES

LIVETIME(SPEC)= 100

ENERGY	RES	AREA
33.1	124.22	75290

TOTAL AREA= 61536

.....

PEAK AT 8.04 KEV OMITTED?

FIT INDEX= 6.09 χ^2

ELMT	AREA	ERROR
FE	15869	289
SI -	25	58* < 2 SIGMA*
MN	639	178
CR	25601	344

DENSITY(GM/CM3)=7.89 THICKNESS(MM)=100

2 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

Specimen 93 830429 Test 400

```
* 1846* RTS2/FLS REV02.00-LINK SYSTEMS LTD.-1980

TILT=35.00/  ELEVATION=  .00/  AZIMUTHAL ANGLE=  .00/
COSINE=1.000/  KV=120.00/
EV/CH=20/  CALIBRATION ELMT:CU/  PEAK ENERGY(KEV)=  8.0400/
RATIO STD.ELMT:SI/  LINE:K /
LABEL(20 CHAR. MAX.):BERIT HARD FACING



* 1847* RTS2/FLS REV02.00-LINK SYSTEMS LTD.-1980

TILT=35.00/  ELEVATION=  .00/  AZIMUTHAL ANGLE=  .00/
COSINE=1.000/  KV=120.00/
EV/CH=20/  CALIBRATION ELMT:CU/  PEAK ENERGY(KEV)=  8.0400/
RATIO STD.ELMT:SI/  LINE:K /
LABEL(20 CHAR. MAX.):

PROGRAM= 1

E.D.S. ANALYSIS? YES
OPTION=1  LIVETIME=100

ELMT  LINE  STD
 FE     K    3
 CR     K    3
 SI     K    3
 MN     K    3

ANALYSE CU ?YESSTANDARD CU 23 APR

 STANDARD CU 23 APR                LIVETIME=   100
 ENERGY    RES      AREA
  105.6  108.20     75259
 8057.1  179.79     22351
TOTAL AREA=    98623   GF=  49.450

ANALYSE? YEST68 CARBIDE.A3


 T68 CARBIDE.A3  = T69 to T70      LIVETIME(SPEC)=   100
 ENERGY    RES      AREA
  106.7  114.81     76288
TOTAL AREA=    11520
......

FIT INDEX= 1.27

ELMT     AREA      ERROR
 FE       2950        122
 CR       4825        149
 SI         23         25* < 2 SIGMA*
 MN        135         76* < 2 SIGMA*

DENSITY(GM/CM3)=7.89  THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T68 CARBIDE.A3

ALL ELMTS ANALYSED.NORMALISED

ELMT     OBS.    %CONC.  ---  KNSI  CM2/GM ABS.CORRN.
```

```
.2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T68 CARBIDE.A3

ALL ELMTS ANALYSED.NORMALISED

ELMT     OBS.    %CONC.   ...   KKSI   CM2/GM ABS.CORRN.
FE K   38.626    38.962   ...  1.124    312      .884
CR K   59.365    59.004   ...  1.056     98      .871
SI K     .272      .310   ...  1.000   2154     1.000
MN K    1.738     1.725   ...  1.106     77      .870
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=1


ANALYSE? YEST69 .A3.CARBIDE


 T69 .A3.CARBIDE                        LIVETIME(SPEC)=    100
 ENERGY     RES      AREA
  110.0  118.80     76391
TOTAL AREA=     10696
......
PEAK AT    8.02 KEV OMITTED?

FIT INDEX= 1.82

ELMT     AREA      ERROR
 FE       2724        116
 CR       4544        144
 SI   -      7         22* < 2 SIGMA*
 MN         126         71* < 2 SIGMA*

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T69 .A3.CARBIDE

ALL ELMTS ANALYSED.NORMALISED

ELMT     OBS.    %CONC.   ...   KKSI   CM2/GM ABS.CORRN.
FE K   38.306    38.666   ...  1.124    314      .884
CR K   60.039    59.703   ...  1.056     97      .871
SI K    -.082     -.094   ...  1.000   2159     1.000
MN K    1.738     1.726   ...  1.106     77      .870
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=1


ANALYSE? YEST70 A3 CARBIDE


 T70 A3 CARBIDE                         LIVETIME(SPEC)=    100
 ENERGY     RES      AREA
  108.3  116.46     76416
TOTAL AREA=      9225
......
PEAK AT    8.04 KEV OMITTED?

FIT INDEX= 1.00
```

```
.ENERGY     RES      AREA
  108.3   116.46     76416
TOTAL AREA=      9225
......
PEAK AT    8.04 KEV OMITTED?

FIT INDEX= 1.00

ELMT     AREA      ERROR
 FE       2582        115
 CR       3615        129
 SI         14         22* < 2 SIGMA*
 MN        132         66

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV   TILT=35.00   ELEV.=   .00   AZIM.=   .00   COSINE=1.000

SPECTRUM:   T70 A3 CARBIDE

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.     %CONC.    ---   KXSI   CM2/GM ABS.CORRN.
FE K   42.185    42.505    ---   1.124    296      .882
CR K   55.467    55.153    ---   1.056     99      .870
SI K     .203      .232    ---   1.000   2176     1.000
MN K    2.125     2.109    ---   1.106     78      .869
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=
1=MORE ANALYSES   2=ADD MORE ELMTS   3=GAIN CALIBRATION
4=CHANGE ELEMENTS(DATA ANALYSIS)   5=SAME ANALYSIS,CHANGE OPTION
6=VIEW DEVIATIONS(MID SCREEN=3.6 SIGMA)  7=AUTO SUMMARY

NEXT=?
```

Specimen A3. 290422 TEM 400

```
* 1340* RTS2/FLS REV02.00-LINK SYSTEMS LTD.-1980

TILT=35.00/  ELEVATION=  .00/  AZIMUTHAL ANGLE=  .00/
COSINE=1.000/  KV=120.00/
EV/CH=20/  CALIBRATION ELMT:CU/  PEAK ENERGY(KEV)=  8.0400/
RATIO STD.ELMT:SI/  LINE:K /
LABEL(20 CHAR. MAX.):

PROGRAM= 1

F.D.S. ANALYSIS? YES
OPTION=1  LIVETIME=100

ELMT  LINE  STD
 FE     K    3
 CR     K    3
 MN     K    3
 SI     K    3

ANALYSE CU ?YESSTANDARD CU T60

 STANDARD CU T60                    LIVETIME=   100
 ENERGY     RES      AREA
   48.8  115.88     73646
 7980.3  169.40     24277
TOTAL AREA=    44276   GF=  49.825

ANALYSE? YESA3.T61 GAMMA


 A3.T61 GAMMA                       LIVETIME(SPEC)=   100
 ENERGY     RES      AREA
   50.7  116.97     74471
TOTAL AREA=    29662
.....
PEAK AT    .72 KEV OMITTED?
PEAK AT   8.02 KEV OMITTED?

FIT INDEX= 4.63

ELMT     AREA      ERROR
 FE      15852       276
 CR       3441       136
 MN        206        86
 SI        320        54

DENSITY(GM/CM3)=7.89  THICKNESS(NM)=100

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  A3.T61 GAMMA

ALL ELMTS ANALYSED.NORMALISED

ELMT     OBS.    %CONC.   ...   KKSI  CM2/GM ABS.CORRN.
FE K  80.995    80.837   ...  1.124    139      .862
CR K  16.517    16.451   ...  1.056    109      .860
MN K   1.035     1.029   ...  1.106     87      .859
SI K   1.453     1.682   ...  1.000   2362     1.000
TOTAL          100.000

BEAM BROADENING ESTIMATE=     21.0 NM
```

7m

```
ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.    ---   KWSI   CM2/GM  ABS.CORRN.
FE K   80.955    80.837    ---  1.124     139      .862
CR K   16.517    16.451    ---  1.056     109      .860
MN K    1.035     1.029    ---  1.106      87      .859
SI K    1.453     1.682    ---  1.000    2362     1.000
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=1


ANALYSE? YEST62,A3,GAMMA      same spot T61

 T62,A3,GAMMA                          LIVETIME(SPEC)=    100
 ENERGY     RES       AREA
   50.7  118.46      74997
TOTAL AREA=     27497
......
PEAK AT    8.04 KEV OMITTED?

FIT INDEX= 2.90

ELMT      AREA      ERROR
 FE       14654       264
 CR        9276       132
 MN         352        85
 SI         361        55

DENSITY(GM/CM3)=7.89   THICKNESS(MM)=100

 3 ITERATIONS

120.00 KV   TILT=35.00   ELEV.=   .00   AZIM.=   .00   COSINE=1.000

SPECTRUM:   T62,A3,GAMMA

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.    ---   KWSI   CM2/GM  ABS.CORRN.
FE K   79.645    79.457    ---  1.124     140      .863
CR K   16.725    16.651    ---  1.056     109      .861
MN K    1.882     1.871    ---  1.106      87      .860
SI K    1.748     2.021    ---  1.000    2351     1.000
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=1


ANALYSE? YESA3,T63 GAMMA      same as T62.01


 A3,T63 GAMMA                          LIVETIME(SPEC)=    100
 ENERGY     RES       AREA
   51.3  117.23      75020
TOTAL AREA=     26392
......
PEAK AT    8.04 KEV OMITTED?

FIT INDEX= 3.92

ELMT      AREA      ERROR
 FE       14039       260
 CR        3162       128
 MN         172        79
 SI         270        52
```

3m

```
ELMT     OBS.     %CONC.    ---   KKSI   CM2/GM  ABS.CORRN.
FE K   79.645    79.457    ---   1.124    140      .863
CR K   16.725    16.651    ---   1.056    109      .861
MN K    1.882     1.871    ---   1.106     87      .860
SI K    1.748     2.021    ---   1.000   2351     1.000
TOTAL           100.000
```

9m

```
BEAM BROADENING ESTIMATE=     21.0 MM

NEXT=1

ANALYSE? YESAS,T60 GAMMA   same as T62.61


 AS,T60 GAMMA                          LIVETIME(SPEC)=    100
 ENERGY     RES      AREA
   51.3   117.23     75020
TOTAL AREA=     26392
......
PEAK AT    8.04 KEV OMITTED?

FIT INDEX= 3.92

ELMT     AREA      ERROR
 FE      14039       260
 CR       3162       128
 MN        172        79
 SI        370        52

DENSITY(GM/CM3)=7.89   THICKNESS(MM)=100

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=   .00  AZIM.=   .00  COSINE=1.000

SPECTRUM:  AS,T60 GAMMA

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.     %CONC.    ---   KKSI   CM2/GM  ABS.CORRN.
FE K   80.187    79.979    ---   1.124    141      .863
CR K   16.966    16.886    ---   1.056    110      .861
MN K     .966      .960    ---   1.106     87      .860
SI K    1.881     2.175    ---   1.000   2849     1.000
TOTAL           100.000
```

10 m

```
BEAM BROADENING ESTIMATE=     21.0 MM

NEXT=1

ANALYSE? YES^

~
* 1342* RTS2/FLS REV02.00-LINK SYSTEMS LTD.-1980

TILT=35.00/  ELEVATION=   .00/  AZIMUTHAL ANGLE=   .00/
COSINE=1.000/  KV=120.00/
FV/CH=20/  CALIBRATION ELMT:CU/  PEAK ENERGY(KEV)=   8.0400/
RATIO STD,ELMT:SI/  LINE:K /
LABEL(20 CHAR. MAX.):

PROGRAM=
1=DATA ANALYSIS  2=ANALYSER  3=DISK LISTING
4=EDIT STANDARD FILE  5=CHARACTERISATION  6=CHANGE SN0,SN1
7=SAVE/RETRIEVE PROFILE LIBRARY

PROGRAM= 1

E.D.S. ANALYSIS? YES
```

```
TILT=35.00  ELEVATION=  .00  AZIMUTHAL ANGLE=  .00
COSINE=1.000  KV=120.00
FW/CH=20  CALIBRATION ELMT:CU  PEAK ENERGY(KEV)=  8.0400
RATIO STD,ELMT:SI  LINE:K
LABEL(20 CHAR, MAX.):

PROGRAM=
1=DATA ANALYSIS  2=ANALYSER  3=DISK LISTING
4=EDIT STANDARD FILE  5=CHARACTERISATION  6=CHANGE SN0,SN1
7=SAVE/RETRIEVE PROFILE LIBRARY

PROGRAM= 1

F.D.S. ANALYSIS? YES
OPTION=1  LIVETIME=100

ELMT  LINE  STD
 FE     K    3
 CR     K    3
 MN     K    3
 SI     K    3

ANALYSE CU ?NO
TRACK NO.(CU)=60
 STANDARD CU T60                    LIVETIME=   100
 ENERGY     RES      AREA
   48.8  115.83     73646
 7980.3  189.40     24277
TOTAL AREA=     44276   GF=  49.325

ANALYSE? YESBETA,A3 T64     time ca. 67, 66


 BETA,A3 T64                        LIVETIME(SPEC)=   100
 ENERGY     RES      AREA
   50.0  118.34     74767
TOTAL AREA=     29352
......
PEAK AT   8.04 KEV OMITTED?

FIT INDEX= 1.94

ELMT     AREA      ERROR
 FE       6712        191
 CR      13106        246
 MN        161        122* < 2 SIGMA*
 SI         19         41* < 2 SIGMA*

DENSITY(GM/CM3)=7.89  THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  BETA,A3 T64

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ...  KKSI  CM2/GM ABS.CORRN.
FE K   34.959    85.323   ...  1.124    331      .886
CR K   64.128    63.757   ...  1.056     97      .872
MN K    .823      .817   ...  1.106     76      .871
SI K    .090      .103   ...  1.000   2135     1.000
TOTAL          100.000

BEAM BROADENING ESTIMATE=    21.0 NM

NEXT=1
```

14c

```
ELMT     OBS.     KCONC.    LLL    KKSI   CM2/GM ABS.CORRN.
FE K   34.959    35.329    LLL    1.124     331      .886
CR K   64.128    63.757    LLL    1.056      97      .872
MN K     .829      .817    LLL    1.106      76      .871
SI K     .090      .103    LLL    1.000    2135     1.000
TOTAL          100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=1


ANALYSE? YES T65 A3 BETA


 T65 A3 BETA                              LIVETIME(SPEC)=    100
 ENERGY     RES       AREA
   50.4   118.92     74614
TOTAL AREA=     29284
......
PEAK AT    8.04 KEV OMITTED?

FIT INDEX= 2.20

ELMT     AREA      ERROR
 FE       6721        191
 CR      12818        246
 MN        396        124
 SI         65         41* < 2 SIGMA*

DENSITY(GM/CM3)=7.   THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=   .00  AZIM.=   .00  COSINE=1.000

SPECTRUM:  T65 A3 BETA

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.     KCONC.    LLL    KKSI   CM2/GM ABS.CORRN.
FE K   35.094    35.401    LLL    1.124     326      .898
CR K   62.878    62.545    LLL    1.056      97      .886
MN K    1.727     1.716    LLL    1.106      77      .884
SI K     .301      .338    LLL    1.000    2134     1.000
TOTAL          100.000

BEAM BROADENING ESTIMATE=     19.8 NM

NEXT=1


ANALYSE? YES T66 A3 BETA


 T66 A3 BETA                              LIVETIME(SPEC)=    100
 ENERGY     RES       AREA
   50.1   120.39     74769
TOTAL AREA=     28748
......
PEAK AT    8.02 KEV OMITTED?

FIT INDEX= 2.37

ELMT     AREA      ERROR
 FE       6701        187
 CR      12237        242
 MN        282        121
 SI         70         41* < 2 SIGMA*
```

```
NEXT=1

ANALYSE? YEST66 A3 BETA

 T66 A3 BETA                              LIVETIME(SPEC)=    100
 ENERGY     RES      AREA
   50.1   120.39     74769
TOTAL AREA=     28748
......
PEAK AT    8.02 KEV OMITTED?

FIT INDEX= 2.37

ELMT     AREA      ERROR
 FE       6701        187
 CR      12237        242
 MN        282        121
 SI         70         41* < 2 SIGMA*

DENSITY(GM/CM3)=7.89   THICKNESS(MM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T66 A3 BETA

ALL ELMTS ANALYSED, NORMALISED

ELMT     OBS.    %CONC.   ---   KKSI  CM2/GM ABS. CORRN.
FE K   36.146    36.409   ---  1.124    328      .886
CR K   62.020    61.642   ---  1.056     97      .872
MN K    1.498     1.487   ---  1.106     77      .871
SI K     .335      .382   ---  1.000   2139     1.000
TOTAL          100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=1

ANALYSE? YEST67 BETA3
T67 BETA3, A3

 T67 BETA3, A3                            LIVETIME(SPEC)=    100
 ENERGY     RES      AREA
   50.3   118.17     75896
TOTAL AREA=     22081
......
PEAK AT    8.00 KEV OMITTED?

FIT INDEX= 1.38

ELMT     AREA      ERROR
 FE       5208        165
 CR       9870        212
 MN        198        106* < 2 SIGMA*
 SI         29         85* < 2 SIGMA*

DENSITY(GM/CM3)=7.89   THICKNESS(MM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000
                  control
SPECTRUM:  T67 BETA3, A3
```

```
SPECTRUM:  T66 A3 BETA

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KXSI   CM2/GM  ABS.CORRN.
FE K   36.146    36.489   ---   1.124    323      .886
CR K   62.020    61.642   ---   1.056     97      .872
MN K    1.498     1.487   ---   1.106     77      .871
SI K     .335      .382   ---   1.000   2139     1.000
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=1


ANALYSE? YEST67 BETA3
T67 BETA3,A3


 T67 BETA3,A3                          LIVETIME(SPEC)=    100
 ENERGY     RES      AREA
   50.3  118.17     75396
TOTAL AREA=     220G1
......
PEAK AT    8.00 KEV OMITTED?

FIT INDEX= 1.38

ELMT     AREA      ERROR
 FE       5208        165
 CR       9870        212
 MN        198        106* < 2 SIGMA*
 SI         29         35* < 2 SIGMA*

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=   .00  AZIM.=   .00  COSINE=1.000
                 carbide
SPECTRUM:  T67 BETA3,A3

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KXSI   CM2/GM  ABS.CORRN.
FE K   35.426    35.781   ---   1.124    327      .886
CR K   63.072    62.702   ---   1.056     97      .872
MN K    1.324     1.315   ---   1.106     77      .871
SI K     .177      .202   ---   1.000   2138     1.000
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.0 NM

NEXT=
```

Specimen B1 840424 TEM 4

```
 PROGRAM= 1

 E.D.S. ANALYSIS? YES
 OPTION=1  LIVETIME=200

 ELMT  LINE  STD
  FE     K    3
  CR     K    3
  MO     L    3
  W      L    3
  MN     K    3
  SI     K    3
  V      K    3

 CU STANDARDISATION?YES
 ANALYSE CU ?NO
 TRACK NO.(CU)= NO VALID SPECTRUM
 TRAC. NO.(CU)=60
  STANDARD CU 20 APR                    LIVETIME=   100
  ENERGY    RES      AREA
   105.6  108.20     75259
  8057.1  179.79     22351
 TOTAL AREA=     36623   GF=  49.450

 ANALYSE? YES

  T4 EUTECTIC B1= 75 76          LIVETIME(SPEC)=   200
  ENERGY    RES      AREA
   112.8  120.45    152756
 TOTAL AREA=     28774
 ......
 PEAK AT    .70 KEV OMITTED?
 PEAK AT  17.38 KEV OMITTED?

 FIT INDEX= 1.71

 ELMT     AREA      ERROR
  FE      14201       255
  CR        783        89
  MO       1567       124
  W         328        79
  MN        174        63
  SI        362        58
  V         452        65

 DENSITY(GM/CM3)=7.89   THICKNESS(NM)=150

  3 ITERATIONS

 120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

 SPECTRUM:  T4 EUTECTIC B1

 ALL ELMTS ANALYSED,NORMALISED

 ELMT     OBS.    %CONC.    ---   KXSI  CM2/GM ABS.CORRN.
 FE K   76.274    74.953    ---  1.124    182      .815
 CR K    3.949     3.896    ---  1.056    169      .819
 MO L   11.647    12.719    ---  1.555   1178      .906
 W  L    3.209     3.192    ---  2.046    250      .825
 MN K     .919      .904    ---  1.106    145      .816
 SI K    1.732     2.067    ---  1.000   2192     1.000
 V  K    2.269     2.249    ---  1.051    215      .822
 TOTAL           100.000
```

B1

```
CR K    4.474     4.425   ...   1.056    162      .814
MO L   11.647    12.719   ...   1.555   1178      .906
W  L    3.209     3.192   ...   2.046    250      .825
MN K     .919      .904   ...   1.106    145      .816
SI K    1.732     2.087   ...   1.000   2192     1.000
V  K    2.269     2.249   ...   1.051    215      .822
TOTAL         100.000
```



```
BEAM BROADENING ESTIMATE=     41.7 NM

NEXT=1


ANALYSE? YEST5 B1 EUTECTIC


 T5 B1 EUTECTIC                          LIVETIME(SPEC)=    200
 ENERGY     RES      AREA
  110.9  119.08    151888
TOTAL AREA=     44587
......
PEAK AT     .72 KEV OMITTED?
PEAK AT   17.38 KEV OMITTED?

FIT INDEX= 2.97

ELMT     AREA      ERROR
 FE      22830       326
 CR       1376       104
 MO       2169       146
 W         405        92
 MN        193        81
 SI        322        66
 V         561        75

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=150

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T5 B1 EUTECTIC

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ...   KMSI   CM2/GM  ABS.CORRN.
FE K   79.023    77.895   ...  1.124    128      .812
CR K    4.474     4.425   ...  1.056    162      .814
MO L   10.462    11.471   ...  1.555   1165      .901
W  L    2.555     2.551   ...  2.046    255      .822
MN K     .658      .649   ...  1.106    137      .812
SI K     .991     1.204   ...  1.000   2287     1.000
V  K    1.817     1.806   ...  1.051    206      .818
TOTAL         100.000

BEAM BROADENING ESTIMATE=     41.7 NM

NEXT=1


ANALYSE? YEST6 B1 EUTECTIC


 T6 B1 EUTECTIC                          LIVETIME(SPEC)=    200
 ENERGY     RES      AREA
  110.5  118.07    171837
TOTAL AREA=     41069
......
PEAK AT     .70 KEV OMITTED?
PEAK AT   17.36 KEV OMITTED?
PEAK AT   19.56 KEV OMITTED?
```

```
FE K   80.350    69.770   ...   1.124    140      .262
CR K    3.866     3.508   ...   1.056    186      .274
MO L    9.668    18.797   ...   1.555   1128      .587
W  L    1.666     1.597   ...   2.046    242      .289
MN K    1.376     1.215   ...   1.106    157      .266
SI K     .926     3.068   ...   1.000   2102     1.000
V  K    2.146     2.045   ...   1.051    237      .288
TOTAL          100.000

BEAM BROADENING ESTIMATE=   1318.9 NM

NEXT=1
```

3

```
ANALYSE? YES

 T6 B1 EUTECTIC                          LIVETIME(SPEC)=    200
 ENERGY     RES      AREA
  110.5   118.07    151837
TOTAL AREA=     41089
......
PEAK AT     .70 KEV OMITTED?
PEAK AT   17.36 KEV OMITTED?
PEAK AT   19.56 KEV OMITTED?

FIT INDEX= 2.89

ELMT     AREA      ERROR
 FE      21592       318
 CR       1106        97
 MO       1678       137
 W         246        90
 MN        376        80
 SI        280        63
 V         617        70

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=150

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T6 B1 EUTECTIC

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ...   KVSI   GM2/GM  ABS.CORRN.
FE K   80.350    79.297   ...   1.124    123      .810
CR K    3.866     3.828   ...   1.056    155      .812
MO L    9.668    10.583   ...   1.555   1150      .898
W  L    1.668     1.669   ...   2.046    257      .821
MN K    1.376     1.360   ...   1.106    133      .810
SI K     .926     1.129   ...   1.000   2256     1.000
V  K    2.146     2.134   ...   1.051    198      .816
TOTAL          100.000

BEAM BROADENING ESTIMATE=     41.9 NM

NEXT=
```

Specimen 61 PB0424

```
 ELMT  LINE  STD
  MO     L    3
  V      K    3
  W      L    3

 CU STANDARDISATION?YES
 ANALYSE CU ?NO
 TRACK NO.(CU)=60
  STANDARD CU 29 APR                    LIVETIME=    100
  ENERGY     RES      AREA
   105.6   108.20     75259
  8057.1   179.79     22351
 TOTAL AREA=     98620    GF=  49.450

 ANALYSE? YESB1:LIGHT REGION T?1


  B1:LIGHT REGION I?1 = ﾌｨﾙﾀｰ ﾅｼ    LIVETIME(SPEC)=    100
  ENERGY     RES      AREA
   109.0   117.46     76286
 TOTAL AREA=     17007
 ......

 FIT INDEX= 1.17

 ELMT     AREA      ERROR
  FE      10172       215
  CR        227        49
  SI         68        40* < 2 SIGMA*
  MN         83        41
```

B1

TOTAL AREA= 17000

.....

FIT INDEX= 1.17

ELMT	AREA	ERROR
FE	10172	215
CR	227	49
SI	68	40* < 2 SIGMA*
MN	83	41
MO	226	62
V	72	34
W	105	59* < 2 SIGMA*

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=100

3 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: B1.LIGHT REGION T71

ALL ELMTS ANALYSED.NORMALISED

ELMT	OBS.	%CONC.	---	KXSI	CM2/GM	ABS.CORRN.
FE K	91.660	91.354	---	1.124	92	.857
CR K	1.919	1.917	---	1.056	129	.859
SI K	.508	.591	---	1.000	2401	1.000
MN K	.739	.737	---	1.106	105	.858
MO L	2.843	3.052	---	1.555	1192	.923
V K	.611	.612	---	1.051	165	.861
W L	1.721	1.736	---	2.046	271	.866
TOTAL		100.000				

BEAM BROADENING ESTIMATE= 21.9 NM

NEXT=1

ANALYSE? YEST72 B1 LIGHT AREA

T72 B1 LIGHT AREA LIVETIME(SPEC)= 200

ENERGY	RES	AREA
111.4	116.64	152336

TOTAL AREA= 31066

.....

PEAK AT .70 KEV OMITTED?

FIT INDEX= 2.68

ELMT .	AREA	ERROR
FE	18267	291
CR	428	67
SI	203	52
MN	186	63
MO	483	67
V	170	51
W	153	73

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=100

3 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: T72 B1 LIGHT AREA

ALL ELMTS ANALYSED.NORMALISED

ELMT	OBS.	%CONC.	---	KXSI	CM2/GM	ABS.CORRN.

```
DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T72 B1 LIGHT AREA

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KKSI   CM2/GM ABS.CORRN.
FE K   90.705    90.317   ---  1.124     94      .858
CR K    1.997     1.993   ---  1.056    130      .860
SI K     .898     1.042   ---  1.000   2385     1.000
MN K     .907      .904   ---  1.106    107      .859
MO L    3.321     3.560   ---  1.555   1185      .924
V  K     .791      .792   ---  1.051    166      .862
W  L    1.381     1.391   ---  2.046    269      .868
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.9 NM

NEXT=1


ANALYSE? YEST73 AS T71


 T73 AS T71                              LIVETIME(SPEC)=    200
 ENERGY     RES      AREA
  112.0  118.37    152679
TOTAL AREA=     23923
......
PEAK AT     .70 KEV OMITTED?

FIT INDEX= 1.72

ELMT     AREA      ERROR
 FE      14045       254
 CR        373        60
 SI        230        45
 MN         86        54* < 2 SIGMA*
 MO        386        75
 V         121        45
 W         119        65* < 2 SIGMA*

DENSITY(GM/CM3)=7.89   THICKNESS(NM)=100

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T73 AS T71

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KKSI   CM2/GM ABS.CORRN.
FE K   90.329    89.873   ---  1.124     95      .859
CR K    2.255     2.249   ---  1.056    131      .861
SI K    1.819     1.528   ---  1.000   2378     1.000
MN K     .543      .541   ---  1.106    107      .859
MO L    3.432     3.677   ---  1.555   1189      .925
V  K     .730      .730   ---  1.051    167      .863
W  L    1.392     1.402   ---  2.046    268      .869
TOTAL           100.000

BEAM BROADENING ESTIMATE=     21.9 NM

NEXT=
1
```

FE K	[illegible]	[illegible]	___	[illegible]	[illegible]	[illegible]
CR K	2.256	2.249	___	1.056	131	.861
SI K	1.319	1.526	___	1.000	2373	1.000
MN K	.543	.541	___	1.106	107	.859
MO L	3.432	3.677	___	1.555	1169	.925
V K	.730	.730	___	1.051	167	.863
W L	1.392	1.402	___	2.046	268	.869
TOTAL		100.000				

BEAM BROADENING ESTIMATE= 21.9 NM

NEXT=
1

ANALYSE? YEST74 B1 THICKER AREA

T74 B1 THICKER AREA LIVETIME(SPEC)= 200

ENERGY	RES	AREA
110.4	119.63	153016

TOTAL AREA= 11874
......

FIT INDEX= 1.11

ELMT	AREA	ERROR
FE	7098	182
CR	218	43
SI	45	29* < 2 SIGMA*
MN	79	39
MO	161	51
V	58	30* < 2 SIGMA*
W	32	46* < 2 SIGMA*

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=100

3 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: T74 B1 THICKER AREA =T75 and T1.

ALL ELMTS ANALYSED,NORMALISED

ELMT	OBS.	%CONC.	___	KXSI	CM2/GM	ABS.CORRN.
FE K	91.519	91.224	___	1.124	93	.857
CR K	2.636	2.633	___	1.056	126	.859
SI K	.519	.604	___	1.000	2405	1.000
MN K	1.006	1.003	___	1.106	103	.857
MO L	2.877	3.085	___	1.555	1169	.922
V K	.694	.695	___	1.051	160	.861
W L	.748	.755	___	2.046	271	.867
TOTAL		100.000				

BEAM BROADENING ESTIMATE= 21.9 NM

NEXT=1

ANALYSE? YES

T75 B1 THICKER REGION

```
T75 B1 THICKER REGION


 T75 B1 THICKER REGION              LIVETIME-(SPEC)=    200
 ENERGY     RES      AREA
  114.6  118.49   151815
TOTAL AREA=     35168
......
PEAK AT     .68 KEV OMITTED?
PEAK AT   17.40 KEV OMITTED?

FIT INDEX= 2.69

ELMT     AREA      ERROR
 FE      21380       314
 CR        497        72
 SI        281        52
 MN        168        65
 MO        450        89
 V         151        53
 W         105        75* < 2 SIGMA*

DENSITY-(GM/CM3)=7.89  THICKNESS-(NM)=100

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T75 B1 THICKER REGION

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---  KWSI  CM2/GM ABS.CORRN.
FE K   92.085   91.714   ---  1.124    91      .857
CR K    2.013    2.009   ---  1.056   126      .859
SI K    1.078    1.252   ---  1.000  2898     1.000
MN K     .711     .709   ---  1.106   103      .858
MO L    2.679    2.873   ---  1.555  1179      .923
V  K     .608     .609   ---  1.051   160      .861
W  L     .827     .834   ---  2.046   271      .868
TOTAL          100.000

BEAM BROADENING ESTIMATE=    21.9 NM

NEXT=1


ANALYSE? YEST1 B1 THICKER REGION


 T1 B1 THICKER REGION               LIVETIME-(SPEC)=    200
 ENERGY     RES      AREA
  113.5  118.90   152213
TOTAL AREA=     29298
......

FIT INDEX= 2.11

ELMT     AREA      ERROR
 FE      17689       288
 CR        456        66
 SI        177        47
```

TOTAL AREA= 104857

.....

FIT INDEX= 2.11

ELMT	AREA	ERROR
FE	17689	288
CR	456	66
SI	177	47
MN	127	63
MO	414	80
V	115	46
W	73	65* < 2 SIGMA*

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=100

3 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: T1 B1 THICKER REGION

ALL ELMTS ANALYSED,NORMALISED

ELMT	OBS.	%CONC.	---	KWSI	CM2/GM	ABS. CORRN.
FE K	92.070	91.721	---	1.124	91	.857
CR K	2.230	2.226	---	1.056	126	.859
SI K	.818	.950	---	1.000	2400	1.000
MN K	.651	.649	---	1.106	103	.858
MO L	2.978	3.193	---	1.555	1173	.922
V K	.561	.562	---	1.051	161	.861
W L	.692	.698	---	2.046	271	.868
TOTAL		100.000				

PEAM BROADENING ESTIMATE= 21.9 NM

NEXT=1

ANALYSE? YEST2 B1 INCLUSION
T2 B1 INCLUSION

T2 B1 INCLUSION LIVETIME(SPEC)= 200

ENERGY	RES	AREA
106.4	117.91	149116

TOTAL AREA= 104857

.....

PEAK AT 17.42 KEV OMITTED?

FIT INDEX= 5.98

ELMT	AREA	ERROR
FE	30964	425
CR	1083	140
SI	1049	109
MN	1457	160
MO	317	143
V	422	117
W	283	175* < 2 SIGMA*

DENSITY(GM/CM3)=NO THICKNESS CORRECTIONS

2 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: T2 B1 INCLUSION

ALL ELMTS ANALYSED,NORMALISED

```
DENSITY(GM/CM3)=NO THICKNESS CORRECTIONS

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T2 B1 INCLUSION

ALL ELMTS ANALYSED,NORMALISED

ELMT     OBS.    %CONC.   ---   KWSI   CM2/GM ABS.CORRN.
FE K   86.739   86.739   ---   1.124     94     1.000
CR K    2.850    2.850   ---   1.056    122     1.000
SI K    2.614    2.614   ---   1.000   2366     1.000
MN K    4.017    4.017   ---   1.106    102     1.000
MO L    1.230    1.230   ---   1.555   1242     1.000
V  K    1.105    1.105   ---   1.051    156     1.000
W  L    1.445    1.445   ---   2.046    267     1.000
TOTAL          100.000

NEXT=
1=MORE ANALYSES  2=ADD MORE ELMTS  3=GAIN CALIBRATION
4=CHANGE ELEMENTS(DATA ANALYSIS)  5=SAME ANALYSIS,CHANGE OPTION
6=VIEW DEVIATIONS(MID SCREEN=0.2 SIGMA) 7=AUTO SUMMARY

NEXT=2


ELMT  LINE  STD
 S      K    S
 TI     K    S

CU STANDARDISATION?YES
ANALYSE CU ?NO
TRACK NO.(CU)=60
 STANDARD CU 23 APR                LIVETIME=    100
 ENERGY     RES      AREA
  105.6  106.20     75259
 8057.1  179.79     22351
TOTAL AREA=     36623    SF=  49.450

ANALYSE? YES

 T2 B1 INCLUSION                   LIVETIME(SPEC)=    200
 ENERGY     RES      AREA
  108.4  117.91    149116
TOTAL AREA=    104857
.......
PEAK AT  17.42 KEV OMITTED?

FIT INDEX= 5.33

ELMT     AREA      ERROR
 FE      30964       425
 CR       1111       140
 SI       1045       109
 MN       1455       160
 MO  -     116       704* < 2 SIGMA*
 V         220       120* < 2 SIGMA*
 W         283       175* < 2 SIGMA*
 S         359       571* < 2 SIGMA*
 TI        951       132

DENSITY(GM/CM3)=NO THICKNESS CORRECTIONS

 2 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  T2 B1 INCLUSION
```

PEAK AT 17.42 KEV OMITTED?

FIT INDEX= 5.33

ELMT		AREA	ERROR
FE		30964	425
CR		1111	140
SI		1045	109
MN		1455	160
MO	-	116	704* < 2 SIGMA*
V		220	120* < 2 SIGMA*
W		283	175* < 2 SIGMA*
S		359	571* < 2 SIGMA*
TI		951	132

DENSITY(GM/CM3)=NO THICKNESS CORRECTIONS

2 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: T2 B1 INCLUSION

ALL ELMTS ANALYSED, NORMALISED

ELMT		OBS.	%CONC.		KWSI	CM2/GM	ABS. CORRN.
FE	K	85.752	85.752		1.124	96	1.000
CR	K	2.890	2.890		1.056	130	1.000
SI	K	2.576	2.576		1.000	2355	1.000
MN	K	3.966	3.966		1.106	105	1.000
MO	L	-.444	-.444		1.555	1191	1.000
V	K	.570	.570		1.051	149	1.000
W	L	1.428	1.428		2.046	266	1.000
S	K	.888	.888		1.003	1169	1.000
TI	K	2.374	2.374		1.013	192	1.000
TOTAL			100.000				

NEXT=1

ANALYSE? YES?3 ANOTHER INCLUSION

T3 ANOTHER INCLUSION LIVETIME(SPEC)= 200

ENERGY	RES	AREA
106.2	117.77	149982

TOTAL AREA= 91203

.....

PEAK AT 17.40 KEV OMITTED?

FIT INDEX= 4.18

ELMT		AREA	ERROR
FE		25275	388
CR		959	128
SI		2050	120
MN		2997	182
MO		1190	657* < 2 SIGMA*
V		185	106* < 2 SIGMA*
W		242	168* < 2 SIGMA*
S	-	793	534* < 2 SIGMA*
TI		174	106* < 2 SIGMA*

DENSITY(GM/CM3)=7.89 THICKNESS(NM)=150

3 ITERATIONS

120.00 KV TILT=35.00 ELEV.= .00 AZIM.= .00 COSINE=1.000

SPECTRUM: T3 ANOTHER INCLUSION

```
W  L    1.428      1.428   ---   2.046    266      1.000
S  K     .888       .888   ---   1.003   1169      1.000
TI K    2.374      2.374   ---   1.013    192      1.000
TOTAL            100.000

NEXT=1


ANALYSE? YES?S ANOTHER INCLUSION


 TS ANOTHER INCLUSION                    LIVETIME(SPEC)=    200
 ENERGY     RES      AREA
  106.2   117.77    149962
TOTAL AREA=     91203
......
PEAK AT  17.40 KEV OMITTED?

FIT INDEX= 4.18

ELMT      AREA      ERROR
 FE       25275       388
 CR         959       128
 SI        2050       120
 MN        2997       182
 MO        1190       657* < 2 SIGMA*
 V          185       106* < 2 SIGMA*
 W          242       163* < 2 SIGMA*
 S    -     793       534* < 2 SIGMA*
 TI         174       106* < 2 SIGMA*

DENSITY(GM/CM3)=7.89   THICKNESS(MM)=150

 3 ITERATIONS

120.00 KV  TILT=35.00  ELEV.=  .00  AZIM.=  .00  COSINE=1.000

SPECTRUM:  TS ANOTHER INCLUSION

ALL ELMTS ANALYSED,NORMALISED

ELMT      OBS.    %CONC.   ---   KKSI   CM2/GM  ABS.CORRN.
FE K   77.394   76.080   ---   1.124    101      .808
CR K    2.758    2.721   ---   1.056    139      .811
SI K    5.586    6.792   ---   1.000   2250     1.000
MN K    9.031    8.887   ---   1.106    112      .809
MO L    5.040    5.551   ---   1.555   1229      .906
V  K     .529     .528   ---   1.051    174      .814
W  L    1.351    1.349   ---   2.046    256      .821
S  K   -2.167   -2.381   ---   1.003   1207      .904
TI K     .479     .477   ---   1.013    224      .819
TOTAL          100.000

BEAM BROADENING ESTIMATE=    40.3 NM

NEXT=1


ANALYSE? YES
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