Templeate for Reporting Activation Measurements at the CRP on Neutron Activation Analysis

(A. Trkov)

```
Input format:
  Version 07/12 Insert Gth
  Input file format
```

DATA

The data in the input file may be preceded by comments. The start of the data block is identified by the record beginning with dashes "-----" in columns 1-12 (or more). The data are read until a blank line or an end-of-file are encountered. If a data set is terminated by a blank line, the procedure is repeated assuming another data set follows. All records before the next "-----" string are assumed to be comments.

```
Column Sy. Ch. Description (Sy=Sumbol, Ch.=No of characters,
1- 4 ID 4+ Index number
                          +=one blank follows)
6- 7 CV 2+ Cover material identification
9- 11 IZ 3+ Target atomic number
13- 14 CH 2+ Target chemical symbol (left-justified)
16- 18 IA 3 Target mass number
19- 19 MM 1+ Target state designation
                    - ground state
                  - first metastable state
                  - second metastable state
21- 23 IZ 3+ Reaction product atomic number
25- 26 CH 2+ Reaction product chemical symbol (left-justified)
28-30 IA 3 Reaction product mass number
31- 31 MM 1+ Reaction product state designation
               blank - excited state
                m - first metastable state
                    - second metastable state
```

```
33- 35 IZ 3+ Decaying nucleus atomic number
 37- 38 CH 2+ Decaying nucleus chemical symbol (left-justified)
 40- 42 IA 3 Decaying nucleus mass number
 43- 43 MM 1+ Decaying nucleus state designation
                 blank - excited state
                       - first metastable state
                       - second metastable state
 45- 52 WGT 8 Total sample mass [mg]
 53- 56 DWG 4 Uncertainty in the mass (or density) [%]
 57- 64 WPC 8 Weight-percent of the target isotope in the sample
 65 72 Gth 8 Thermal flux depression (self-shielding) factor
 73-80 SSF 8 Epithermal (resonance) sefl-shielding factor
 81-88 TIR 8 Irradiation time [s]
 89- 92 DTI 4 Uncertainty in irradiation time [s]
 93-100 TCO 8 Cooling time [s]
101-104 DTC 4 Uncertainty in cooling time [s]
105-112 TME 8 Measuring time [s]
113-116 DTE 4 Uncertainty in measuring time [s]
117-124 EGM 8 Gamma-line energy [keV]
125-132 PKA 8 Measured activity (peak area) [counts]
133-140 DPK 8 Measured peak area uncertainty [counts]
141-150 EPS 10 Detector efficiency at gamma ray energy [fraction]
151-154 DEP 4 Uncertainty in detector efficiency [%]
155-162 COI 8 Coincidence correction factor [fraction]
               Columns 159 and beyond can be used to identify the sample
```

COMMANDS

The records beginning with \$* are interpreted as commands. The following options are applicable to the SPCACT code:

\$* COMMENT Text to be transferred to the list file (comment)

\$* RATIO Columns 11-20 define the index of the numerator
Columns 21-30 define the index of the denominator.
Index refers to the number in columns 1-4 of the data.
Columns 31 and beyond can be used as comments.

The commands must precede the data set to which they apply.

\$* COMMENT

\$* COMMENT TRIGA Mark-II IJS CC Mesaured 13.02.2007

\$* RATIO 2 1 13-Feb-2007. Al-Au 27Al(n,g)

\$* RATIO 3 1 13-Feb-2007. Al-Au 27Al(n,p)

ID EGM	CV Tar	get DPK	Product EPS DE	Decaying P COI	WGT	DWG	WPC	Gth	SSF	TIR	DTI	TCO	DTC	TME	DTM
					mg	용	용	_	_	S	s	s	s	S	s
keV	counts co	unts	-	% -	3										
1	79-Au-	 197 7	9-Au-198	79-Au-198	11.00	0	0.1	1.000	0.997	300	5	21564	60	3600	
411.	8 994702	796	9.182-3	2 1											
2	13-Al-	027 1	3-Al-028	13-A1-028	11.00	0	99.9	1.000	0.990	300	5	1404	60	120	
1778	.9 11258	22	9.031-4	2 1											
3	13-Al-	027 1	2-Mg-027	12-Mg-027	11.00	0	99.9	1	1	300	5	2364	60	420	
843	8 93154	261	4 968-3	2 9996											