

## Example CLSQ Input File

# of

Isotopes

NM721Bottom, Gamma2(216keV), Shelf 60cm, Lab 311

→ Comment Line

1 1 .05

2 5 .5 6.0

→ Control Card

# of isotopes

to vary  $T_{1/2}$

1: will change  
the 1st isotope,

2: will change  
the 1st then  
the 2nd isotope

11.500D →  $T_{1/2}$

137	09	56.2	2.40E4	5
141	14	28.0	1.88E4	5
149	15	23.1	1.18E4	5
164	10	29.5	9.81E3	10
175	14	22.9	2.52E3	5
183	17	45.6	3.04E3	10
193	13	52.1	4.95E3	30
204	17	57.0	2.20E3	30
214	12	18.5	2.13E3	45
226	15	33.2	1.19E3	60
235	10	27.3	5.32E2	45

EOB

000 00 00.0

days hr min

decay time  
from EOB  
up until  
the day you  
count your  
sample

# of  
Counts  
(NET PEAK  
AREA)

Counting  
Time  
( $\Delta T$ ) minutes

→ rejection limit (for ratio (I))

$T_{1/2} \rightarrow S, M, D, Y$

EOB → End of Bombardment

## How to Run CLSQ

NOTE: CLSQ.EXE must be in the  
same folder as your input files

1. Open CLSQ
2. "Enter input file specifications  
type: Filename.dat
3. "Name of output file"  
type: Filename.out

Tip: Keep input + output file as  
the same name (file name)

# Example CLSQ Output File

FNM721B2.OUT

1 PDP 11/23 CLSQ V1.0-1

ONM721Bottom, Gamma2(216kev), Shelf 60cm, Lab 311 → Copied Comment Line

0 INPUT DATA FROM CARDS

DAY	HR	MIN	COUNT	DELTAT	BGND	SBGND	SIGPCT	TYPE-FWHM	ENERGY	ID1
137.	9.	56.20	24000.	5.0	.00	.00	.0		.0	
			4800.00							
141.	14.	28.00	18800.	5.0	.00	.00	.0		.0	
			3760.00							
149.	15.	23.10	11800.	5.0	.00	.00	.0		.0	
			2360.00							
164.	10.	29.50	9810.	10.0	.00	.00	.0		.0	
			981.00							
175.	14.	22.90	2520.	5.0	.00	.00	.0		.0	
			504.00							
183.	17.	45.60	3040.	10.0	.00	.00	.0		.0	
			304.00							
193.	13.	52.10	4950.	30.0	.00	.00	.0		.0	
			165.00							
204.	17.	57.00	2200.	30.0	.00	.00	.0		.0	
			73.33							
214.	12.	18.50	2130.	45.0	.00	.00	.0		.0	
			47.33							
226.	15.	33.20	1190.	60.0	.00	.00	.0		.0	
			19.83							
235.	10.	27.30	532.	45.0	.00	.00	.0		.0	
			11.82							
0.	0.	.00	0.	.0	.00	.00	.0		.0	

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From Control Line

NP= 11 NC= 1 NV=0 CNV= .05 BGD= .00 SBGD= .00 BLOCK= 5.0 SCOFF= .5 RJT= 6.0 KCS= 0 YIELD= .000

COMP( 1) HALF LIFE SIGMA H CPM AT END SIGMA DECAY FACTOR  
11.500D .000D .1914E+08 .6728E+05 .3954E+04

FIT= 3.010

NOTE: Perfect Fit = 1

T(I)	F(I)	FCALC(I)	V(I)	SIGMAF(I)	RATIO(I)
.1979E+06	.4802E+04	.4840E+04	-.3792E+02	.3098E+02	-1.22
.2039E+06	.3761E+04	.3760E+04	.1205E+01	.2742E+02	.04
.2155E+06	.2360E+04	.2316E+04	.4429E+02	.2173E+02	2.04
.2368E+06	.9811E+03	.9493E+03	.3176E+02	.9905E+01	3.21
.2529E+06	.5040E+03	.4845E+03	.1954E+02	.1004E+02	1.95
.2646E+06	.3040E+03	.2966E+03	.7433E+01	.5515E+01	1.35
.2788E+06	.1650E+03	.1638E+03	.1158E+01	.2345E+01	.49
.2949E+06	.7333E+02	.8357E+02	-.1023E+02	.1564E+01	-6.54
.3089E+06	.4733E+02	.4638E+02	.9579E+00	.1026E+01	.93
.3264E+06	.1983E+02	.2231E+02	-.2476E+01	.5752E+00	-4.31
.3390E+06	.1182E+02	.1314E+02	-.1318E+01	.5130E+00	-2.57

ODATA POINTS REJECTED( 1) ARE GIVEN BELOW.

BAD T BAD F  
.2949E+06 .7333E+02

OREPEAT CALCULATION WITHOUT THESE POINTS.

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} Trying to reject bad point(s)...  
to make better

→ Start o/ repeating cal.