

VNIIEF
CNPD


Thanks to V.Zerkin and
S.Dunaeva, IAEA/NDS for ideas,
proposals and testing

Work with EXFOR DATA Table

EXFOR Data

Version 1.0

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IAEA

● Main Functions of Data Editor

- Performing procedures with data columns and rows: adding, inserting, removing, saving, coping etc.
- Performing calculations with data values
- Setting data precision
- Inserting constant into data column
- Sorting data
- Plotting data
- Importing data tables
- Pasting data tables

Calculations

EXFOR Data Table

Current File: D:\Taova\crrw_new\Ready\APRELIM\FIN10\F0802.exf Open Preview Current SUBENTRY: F0802002

	E-LVL-INI	E-LVL-FIN	COS-CM	MISC	DATA-CM	DATA-ERR
	KEY	KEY	NO-DIM	NO-DIM	ARB-UNITS	ARB-UNITS
3	539.5	0	0.07882	0.00621	0.52966	0.01089
4	539.5	0	0.23593	0.05566	0.54263	0.01089
5	539.5	0	0.46743	0.21849	0.58243	0.01232
6	539.5	0	0.57607	0.33186	0.60954	0.01347
7	539.5	0	0.69241	0.47943	0.63614	0.0149
8	539.5	0	0.91011	0.8283	0.69486	0.01547
9	1227	539.5	0.08717	0.0076	0.43907	0.0108
10	1227	539.5	0.23603			
11	1227	539.5	0.46409			
12	1227	539.5	0.57066			
13	1227	539.5	0.68949			
14	1227	539.5	0.91082			
15	2076	1227	0.07632			
16	2076	1227	0.23349			
17	2076	1227	0.46261			
18	2076	1227	0.56954			
19	2076	1227	0.68936			
20	2076	1227	0.90973			
21	2528	1227	0.17016			
22	2528	1227	0.28828			
23	2528	1227	0.48734			
24	2528	1227	0.58583			
25	2528	1227	0.69785			
26	2528	1227	0.90225	0.81405	0.04704	0.00153
27	2953	2076	0.1366	0.01866	0.16003	0.00777
28	2953	2076	0.27325	0.07466	0.16362	0.00804
29	2953	2076	0.48004	0.23044	0.15371	0.00831
30	2953	2076	0.57915	0.33541	0.13109	0.00653
31	2953	2076	0.69529	0.48343	0.14093	0.00702
32	2953	2076	0.90179	0.81323	0.10805	0.00551
33	2953	2528	0.10546	0.01112	2.0947	0.14573

Calculations with columns

Argument Column: MISC

Function: ROOT

Result Column: COS-CM

Result Function: COS-CM = ROOT(MISC)

OK Cancel Help

DATA

Import Sort

Paste Chart

Clear All

Column

Add Insert

Copy Delete

Rename

Move Left

Move Right

Calculations

Set Value

Row

Add

Insert

Copy

Delete

Move Up

Move Down

Save Options

Precision

EXFOR-Help Help About Save Data Table Exit

● Set Value

EXFOR Data Table

Current File: D:\Taova\crrw_new\Ready\PRELIM\FIN10\F0802.exf Open Preview Current SUBENTRY: F0802002

	E-LVL-INI	E-LVL-FIN	COS-CM	MISC	DATA-CM	DATA-ERR
	KEV	KEV	NO-DIM	NO-DIM	ARB-UNITS	ARB-UNITS
1						
2						
3	539.5	0	0.07882	0.00621	0.52966	0.01089
4	539.5	0	0.23693	0.05566	0.54263	0.01089
5	539.5	0	0.46743	0.21849	0.58243	0.01232
6	539.5	0	0.57607	0.33186	0.60954	0.01347
7	539.5	0	0.69241	0.47943	0.63614	0.0149
8	539.5	0	0.91011	0.8283	0.69486	0.01547
9	1227	539.5	0.08717	0.0076	0.43907	0.0108
10	1227	539.5	0.23603	0.05571	0.46641	0.01136
11	1227	539.5	0.46409	0.21538	0.50842	0.01108
12	1227	539.5	0.57066	0.32565	0.53502	0.01278
13	1227	539.5	0.68949	0.4754	0.55599	0.01193
14	1227	539.5				
15	2076	1227				
16	2076	1227				
17	2076	1227				
18	2076	1227				
19	2076	1227				
20	2076	1227				
21	2528	1227				
22	2528	1227	0.28828	0.0831	0.0685	0.00208
23	2528	1227	0.48734	0.2375	0.06206	0.00181
24	2528	1227	0.58583	0.3432	0.05843	0.00186
25	2528	1227	0.69785	0.48699	0.05349	0.00175
26	2528	1227	0.90225	0.81405	0.04704	0.00153
27	2953	2076	0.1366	0.01866	0.16003	0.00777
28	2953	2076	0.27325	0.07466	0.16362	0.00804
29	2953	2076	0.48004	0.23044	0.15371	0.00831
30	2953	2076	0.57915	0.33541	0.13109	0.00653
31	2953	2076	0.69529	0.48343	0.14093	0.00702
32	2953	2076	0.90179	0.81323	0.10805	0.00551
33	2953	2528	0.10546	0.01112	2.0947	0.14573

Column Value Set

Column Name: E-LVL-FIN Constant Value: 1227

Start Row: 15 End Row: 26

OK Cancel Help

DATA

Import Sort

Paste Chart

Clear All

Column

Add Insert

Copy Delete

Rename

Move Left

Move Right

Calculations

Set Value

Row

Add

Insert

Copy

Delete

Move Up

Move Down

Save Options

Precision

EXFOR-Help Help About Save Data Table Exit

● Precision

EXFOR Data Table

Current File: D:\Taova\csw_new\Ready\PRELIM\FIN10\F0802.exf Open Preview Current SUBENTRY: F0802002

1	E-LVL-INI	E-LVL-FIN	COS-CM	MISC	DATA-CM	DATA-ERR
2	KEY	KEY	NO-DIM	NO-DIM	ARB-UNITS	ARB-UNITS
3	539.5	0	0.07882	0.00621	0.52966	0.01089
4	539.5	0	0.23593	0.05566	0.54263	0.01089
5	539.5	0	0.46743	0.21849	0.58243	0.01232
6	539.5	0	0.57607	0.33186	0.60954	0.01347
7	539.5	0	0.69241	0.47943	0.63614	0.0149
8	539.5	0	0.91011	0.8283	0.69486	0.01547
9	1227					
10	1227					
11	1227					
12	1227					
13	1227					
14	1227					
15	2076					
16	2076					
17	2076					
18	2076					
19	2076					
20	2076					
21	2528					
22	2528					
23	2528					
24	2528					
25	2528					
26	2528					
27	2953					
28	2953					
29	2953					
30	2953	2076	0.57915	0.33541	0.13109	0.00653
31	2953	2076	0.69529	0.48343	0.14093	0.00702
32	2953	2076	0.90179	0.81323	0.10805	0.00551
33	2953	2528	0.10546	0.01112	2.0947	0.14573

DATA

Import Sort

Paste Chart

Clear All

Column

Add Insert

Copy Delete

Rename

Move Left

Move Right

Calculations

Set Value

Row

Add

Insert

Copy

Delete

Move Up

Move Down

Save Options

Precision

Data Precision

Choose Column for Format Set:

- E-LVL-INI
- E-LVL-FIN
- COS-CM
- MISC
- DATA-CM**
- DATA-ERR

Fixed Point Format

Number of Digits after Decimal Point: 5

Erase Trailing Zero

Example: 0.00001

Use Scientific Format if:

Absolute Value >: 999.00

Absolute Value <: 0.1

Scientific Format

Total Number of Digits before Exponent (including one before decimal point): 6

Example: 0.0001 E+01

Set This Format:

for All Columns as Default

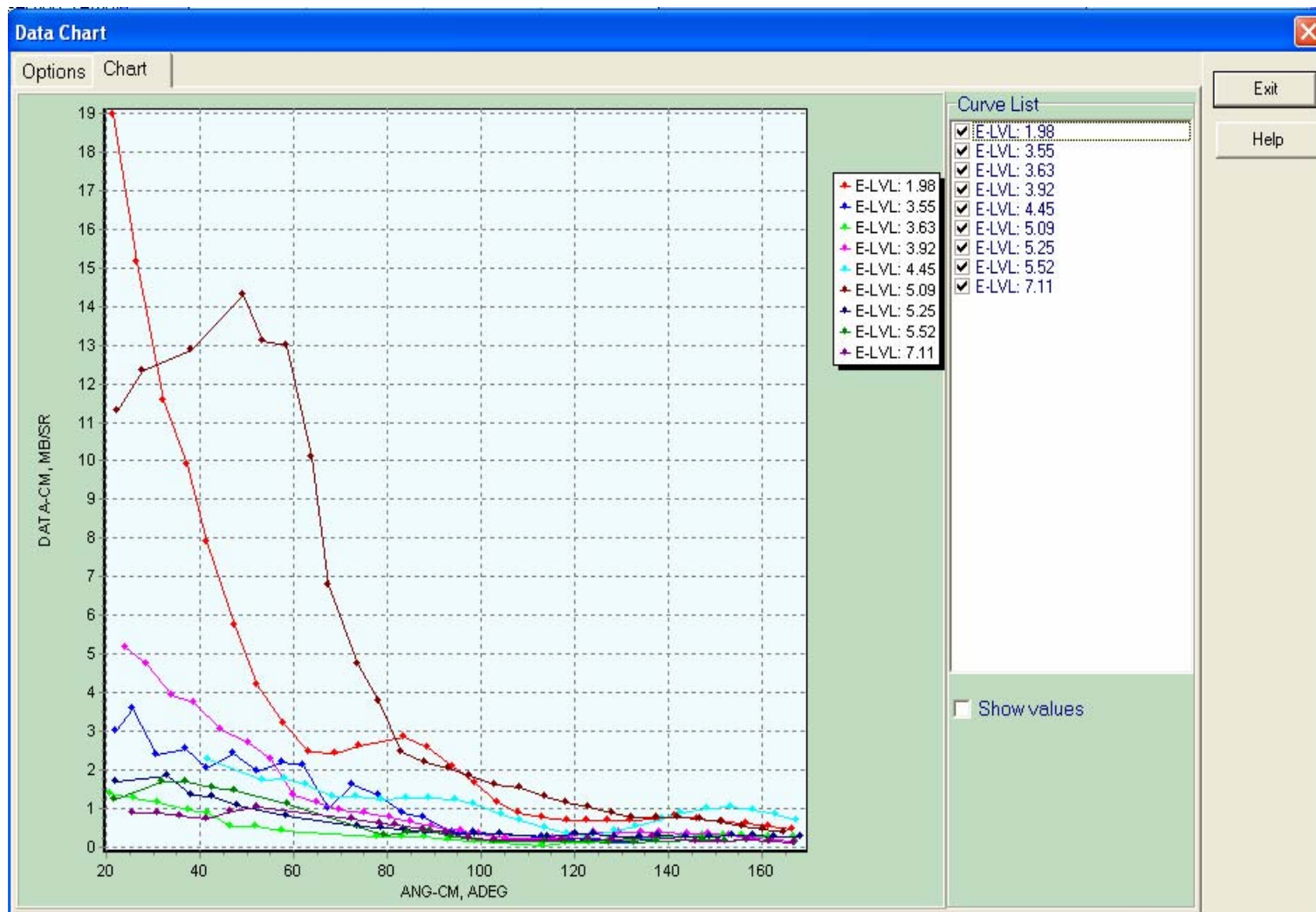
EXFOR-Help Help About Save Data Table Exit

Sort

The screenshot shows the EXFOR Data Table application window. At the top, the 'Current File' is 'D:\Taova\crw_new\Ready\PRELIM\FIN10\F0829.exf' and the 'Current SUBENTRY' is 'F0829006'. The main area contains a table with 28 rows and 5 columns: E-LVL, ANG-CM, DATA-CM, DATA-ERR, and MEV. A 'Data Sort' dialog box is open, allowing the user to select sort keys. The 'Primary Sort Key' is 'E-LVL', the 'Secondary Sort Key' is 'ANG-CM', and the 'Last Sort Key' is empty. The dialog has 'OK', 'Cancel', and 'Help' buttons.

	E-LVL	ANG-CM	DATA-CM	DATA-ERR	MEV
1					
2	MEV	ADEG	MB/SR	MB/SR	
3	0.465	38.414	8.4757		
4	0.465	47.12	5.2641		
5	0.465	51.011	4.0876		
6	0.465	61.422	3.5332		
7	0.465	66.317	4.4013		
8	0.465	81.328	2.5264		
9	0.465	86.486	1.9091		
10	0.465	91.814			
11	0.465	96.659			
12	0.465	101.09			
13	0.465	106.87			
14	0.465	111.63			
15	0.465	116.56			
16	2.07	38.831			
17	2.07	47.127			
18	2.07	50.927			
19	2.07	61.248			
20	2.07	66.708			
21	2.07	81.397			
22	2.07	86.989			
23	2.07	91.59	0.2421		
24	2.07	96.469	0.15767	0.00444	
25	2.07	101.71	0.17048	0.01189	
26	2.07	106.42	0.15711	0.00667	
27	2.07	111.37	0.16497	0.01151	
28	2.07	115.98	0.18085		

Plot



Import

The screenshot displays the EXFOR Data Table application interface. An 'Import' dialog box is open, showing the file path 'D:\Taova\crw_new\Ready\PRELIM\FIN10\F0812.exf' and various import options. A 'Preview of File D:\Taova\crw_new\Ready\PRELIM\FIN10\F0812.exf' window is also open, displaying the data content of the file.

Import Dialog Box:

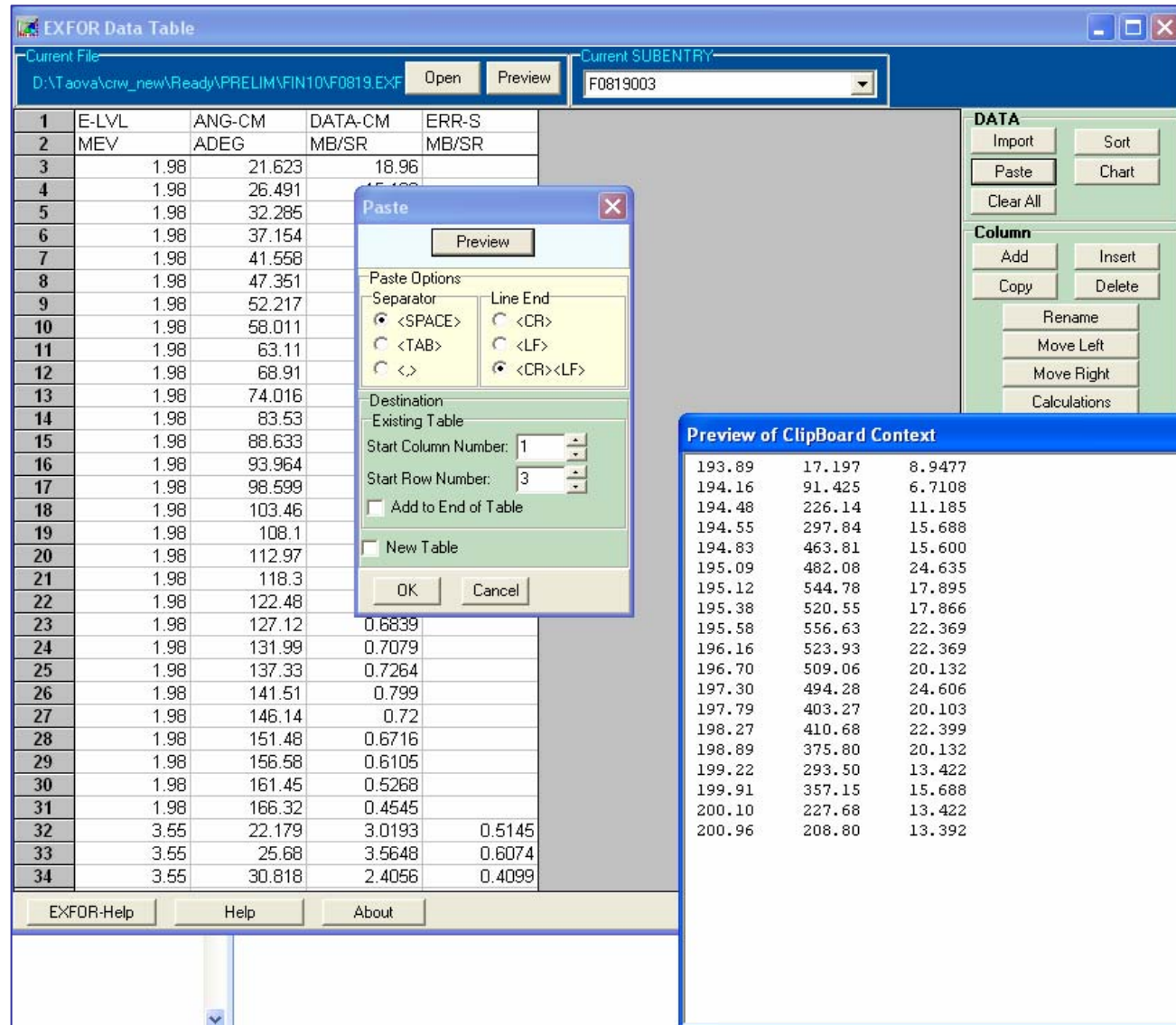
- Import File: File Name: D:\Taova\crw_new\Ready\PRELIM\FIN10\F0812.exf
- File Format: Text, WORD, EXCEL
- Import Options:
 - Separator: <SPACE>, <TAB>, <>
 - Line End: <CR>, <LF>, <LF><CR>
- Source: Columns (Start Number: 1, Number of Columns: 1, To the End of Line:)
- Destination: Existing Table (Start Column Number: 1, Start Row Number: 3, Add to the End of Table: , New Table:)

Preview of File D:\Taova\crw_new\Ready\PRELIM\FIN10\F0812.exf:

```

ENTRY          F0812   19200703
SUBENT         F0812001 20070313
BIB            5      6
TITLE          Band structure in 180Ta studied with transfer reactions
AUTHOR         (E.Warde,G.J.Costa,D.Magnac,R.Seltz,C.Gerardin,
                M.Buenerd,Ph.Martin,W.Saathoff,C.A.Wiedner)
INSTITUTE      (2FR STR,2FR GRE,2GERMPH)
REFERENCE      (J,PR/C,27,98,1982)
HISTORY        (20070306C)
ENDBIB        6      0
NOCOMMON      0      0
ENDSUBENT     9      0
SUBENT         F0812002 20070427
BIB            6     13
REACTION       (73-TA-181(P,D)73-TA-180,PAR,DA)
FACILITY       (VDGT,2FR STR)
DETECTOR       (PSSSD) Four solid state position sensitive detectors
                of 50 mm length each. The energy calibration of the
                focal plane was achieved through the 13C(p,d)12C
                reaction. The estimated error on the excitation energy
                is of the order of 5 keV.
SAMPLE         The natural tantalum target, 193 mu-g/cm2 thick, was
                obtained by evaporation on a 20 mu-g/cm2 carbon backing
ERR-ANALYS    (ANG-ERR-D)Digitizing error
                (ERR-DIG)Digitizing error
                (DATA-ERR)Error from the graphic bars
STATUS         (CURVE)Fig.4
ENDBIB        13     0
  
```


 Paste



The screenshot shows the EXFOR Data Table application interface. The main window displays a table with columns: E-LVL, ANG-CM, DATA-CM, and ERR-S. A 'Paste' dialog box is open, showing 'Paste Options' with radio buttons for Separator (<SPACE>, <TAB>, <>) and Line End (<CR>, <LF>, <CR><LF>). The 'Destination' section includes 'Existing Table' with 'Start Column Number' set to 1 and 'Start Row Number' set to 3, and an unchecked 'Add to End of Table' checkbox. There is also an unchecked 'New Table' checkbox. A 'Preview of Clipboard Context' window is also visible, showing a grid of numerical data.

1	E-LVL	ANG-CM	DATA-CM	ERR-S
2	MEV	ADEG	MB/SR	MB/SR
3	1.98	21.623	18.96	
4	1.98	26.491		
5	1.98	32.285		
6	1.98	37.154		
7	1.98	41.558		
8	1.98	47.351		
9	1.98	52.217		
10	1.98	58.011		
11	1.98	63.11		
12	1.98	68.91		
13	1.98	74.016		
14	1.98	83.53		
15	1.98	88.633		
16	1.98	93.964		
17	1.98	98.599		
18	1.98	103.46		
19	1.98	108.1		
20	1.98	112.97		
21	1.98	118.3		
22	1.98	122.48		
23	1.98	127.12	0.6839	
24	1.98	131.99	0.7079	
25	1.98	137.33	0.7264	
26	1.98	141.51	0.799	
27	1.98	146.14	0.72	
28	1.98	151.48	0.6716	
29	1.98	156.58	0.6105	
30	1.98	161.45	0.5268	
31	1.98	166.32	0.4545	
32	3.55	22.179	3.0193	0.5145
33	3.55	25.68	3.5648	0.6074
34	3.55	30.818	2.4056	0.4099

193.89	17.197	8.9477
194.16	91.425	6.7108
194.48	226.14	11.185
194.55	297.84	15.688
194.83	463.81	15.600
195.09	482.08	24.635
195.12	544.78	17.895
195.38	520.55	17.866
195.58	556.63	22.369
196.16	523.93	22.369
196.70	509.06	20.132
197.30	494.28	24.606
197.79	403.27	20.103
198.27	410.68	22.399
198.89	375.80	20.132
199.22	293.50	13.422
199.91	357.15	15.688
200.10	227.68	13.422
200.96	208.80	13.392