

VNIIEF



Codes ZCHEX for checking EXFOR entries and
ZORDER for indexing by V.McLane, BNL and
V.Zerkin, IAEA/NDS are used

Code JANIS Trans Checker for checking EXFOR
entries by N.Soppera, NEA DB is used

EXFOR Editor

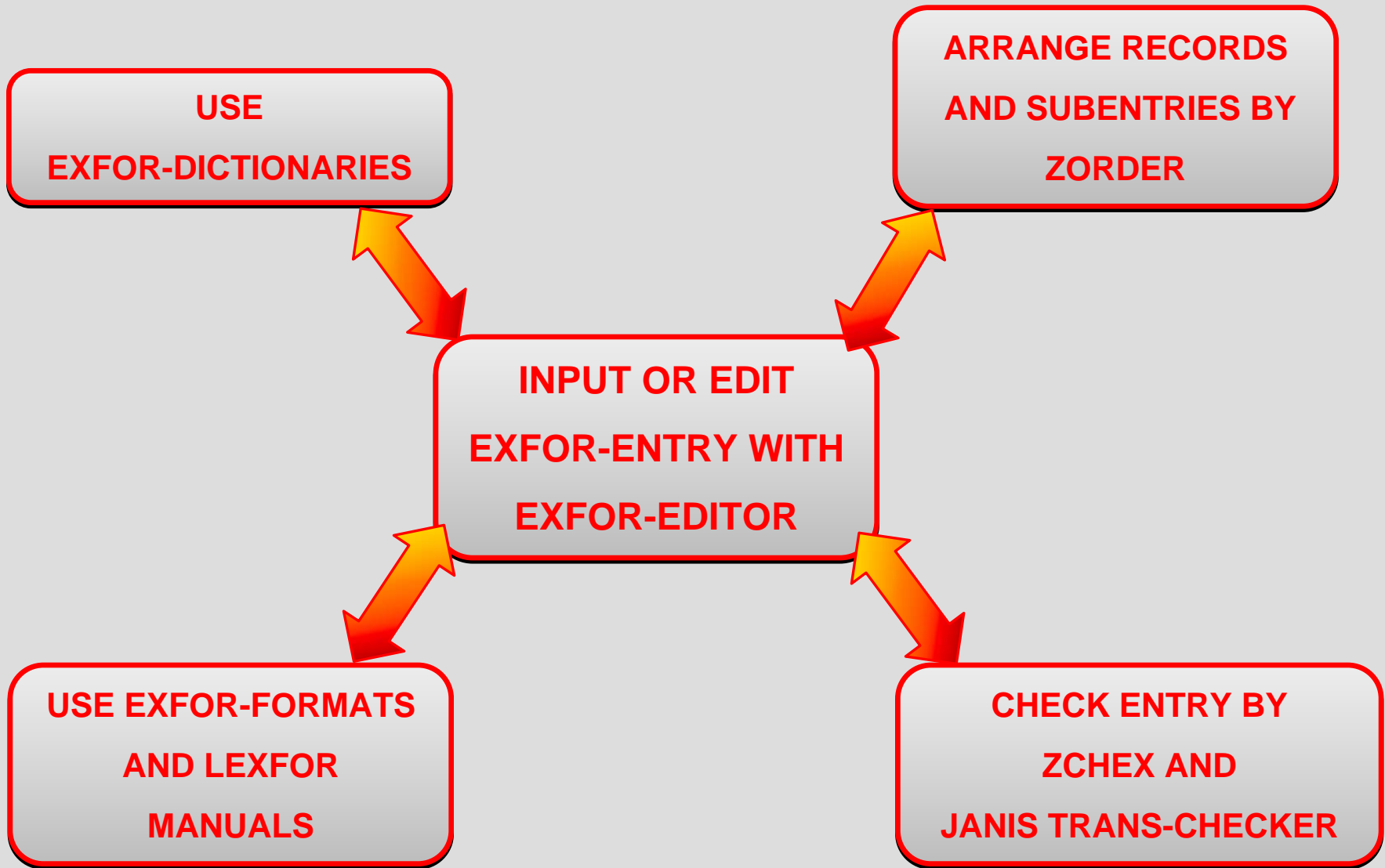
Compilation into database EXFOR


Version 1.9


Copyright 2005-2010
G.Pikulina, S.Taova


Thanks to all NRDC community
for proposals and testing







- 
 New EXFOR file creation and editing of the old one

- 
 Insertion of subentries and keywords using special dialog windows

- 
 Work with numerical data

- 
 Processing and checking of EXFOR-files

- 
 Provision of special tools and service functions

Main Window of EXFOR-Editor

The screenshot shows the EXFOR-Editor interface. At the top is a menu bar (File, Section input, Keyword input, Edit, Processing, Tools, Help) and a toolbar. Below the toolbar is a panel with buttons for 'EXFOR new file', 'EXFOR wizard', 'Sort', 'Chart', 'Check', 'Order', and 'Checker'. A second row of buttons includes 'TITLE', 'AUTHOR', 'INSTITUTE', 'REFERENCE', 'FACILITY', 'INC-SOURCE', 'DETECTOR', 'SAMPLE', 'METHOD', 'ANALYSIS', 'EX-ANALYS', 'REACTION', 'CURRENT EDIT', and 'ENTRY Title'. A third row of buttons includes 'DECAY-DATA', 'HALF-LIFE', 'PART-DET', 'ADD-RES', 'MONITOR', 'MONIT-REF', 'REL-REF', 'COMMENT', 'CRITIQUE', 'FLAG', and 'STATUS'. Below these is a row of tabs: 'SUBENTRY001', 'SUBENTRY001-wizard', 'SUBENTRY', 'SUBENTRY-wizard', 'COMMON', 'DATA', and three columns for 'C' in different contexts. The left pane shows the 'EXFOR File Structure' tree with folders for ENTRY, SUBENT, BIB, COMMON, and DATA. The main editor field displays a table of data for entry F0083.

Functional Panel

Keyword Buttons

Subentry and Section Buttons

EXFOR-File Structure

Editor Field

Column: 1	Row: 1	Total: 557	Insert	C:\MyPrograms\Exfor\exf\0083.exf
10083.exf				
ENTRY	F0083	20041110		F0083 0 1
SUBENT	F0083001	20041110		F0083 1 1
BIB	11	34		F0083 1 2
TITLE	Spectroscopy of 47K and proton core-excitations in 48Ca			F0083 1 3
	from the 48Ca(t,a)47K reaction			F0083 1 4
AUTHOR	(C.A.Ogilvie, D.Barker, J.B.A.England, M.C.Mannion, J.M.Nelson, L.Zybert, R.Zybert)			F0083 1 5
INSTITUTE	(2UK BIR)			F0083 1 6
REFERENCE	(J,NP/A, 465,445,1987)			F0083 1 7
FACILITY	(VDGT,2UK BIR) NSF tandem accelerator at Daresbury			F0083 1 8
INC-SOURCE	Tritium beam			F0083 1 9
DETECTOR	(TELES,SIBAR,SILI) Ten solid Delta-E - E telescopes			F0083 1 10
	were used. Each telescope consisted of 120 micron			F0083 1 11
	surface barrier silicon Delta-E detector with 5 mm			F0083 1 12
	lithium drifted silicon E-detector. Counting rates			F0083 1 13
	were kept below 2 kHz/telescope and resulting dead			F0083 1 14
	time was less than 1%. Horizontal acceptance for each			F0083 1 15
	telescope was +-0.3 degree.			F0083 1 16
	(SOLST) 4 solid-state detectors were used to monitor			F0083 1 17
	target.			F0083 1 18
METHOD	(EDE)			F0083 1 19
MONITOR	Target thickness was determined by normalization grid			F0083 1 20
				F0083 1 21

EXFOR-File Structure

Status Bar

EXFOR File Structure

Column: 1 Row: 1 Total: 557 Insert C:\MyPrograms\Exfor\exf\0083.exf

f0083.exf

- ENTRY F0083
 - SUBENT F0083001
 - BIB
 - COMMON
 - SUBENT F0083002
 - BIB
 - COMMON
 - DATA
 - SUBENT F0083003
 - BIB
 - COMMON
 - DATA
 - SUBENT F0083004
 - BIB
 - COMMON
 - DATA

ENTRY	F0083	20041110		F0083	0	1
SUBENT	F0083001	20041110		F0083	1	1
BIB	11	34		F0083	1	2
TITLE	Spectroscopy of 47K and proton core-excitations in 48Ca			F0083	1	3
	from the 48Ca(τ ,a)47K reaction			F0083	1	4
AUTHOR	(C.A.Ogilvie, D.Barker, J.B.A.England, M.C.Mannion, J.M.Nelson, L.Zybert, R.Zybert)			F0083	1	5
				F0083	1	6
INSTITUTE	(2UK BIR)			F0083	1	7
REFERENCE	(J,NP/A,465,445,1987)			F0083	1	8
FACILITY	(VDGT,2UK BIR) NSF tandem accelerator at Daresbury			F0083	1	9
INC-SOURCE	Tritium beam			F0083	1	10
DETECTOR	(TELES,SIBAR,SILI) Ten solid Delta-E - E telescopes			F0083	1	11
	were used. Each telescope consisted of 120 micron			F0083	1	12
	surface barrier silicon Delta-E detector with 5 mm			F0083	1	13
	lithium drifted silicon E-detector. Counting rates			F0083	1	14
	were kept below 2 kHz/telescope and resulting dead			F0083	1	15
	time was less than 1%. Horizontal acceptance for each			F0083	1	16
	telescope was +/-0.3 degree.			F0083	1	17
	(SOLST) 4 solid-state detectors were used to monitor			F0083	1	18
	target.			F0083	1	19
METHOD	(EDE)			F0083	1	20
MONITOR	Target thickness was determined by normalization grid			F0083	1	21

1 12 23 34 45 56 67

Grid Lines

Rule with Column Numbers

EXFOR new file EXFOR wizard

New EXFOR file

ENTRY: Number of Subentries:

SUBENTRY 1 contents

BIB section

<input checked="" type="checkbox"/> TITLE	<input checked="" type="checkbox"/> FACILITY	<input checked="" type="checkbox"/> M
<input checked="" type="checkbox"/> AUTHOR	<input checked="" type="checkbox"/> SAMPLE	<input type="checkbox"/> IN
<input checked="" type="checkbox"/> INSTITUTE	<input type="checkbox"/> DETECTOR	<input checked="" type="checkbox"/> AI
<input checked="" type="checkbox"/> REFERENCE	<input type="checkbox"/> METHOD	<input checked="" type="checkbox"/> EF

SUBENTRY 2 SUBENTRY 3

BIB section

<input checked="" type="checkbox"/> REACTION	<input type="checkbox"/> ADD-RES
<input type="checkbox"/> SAMPLE	<input checked="" type="checkbox"/> PART-DET
<input type="checkbox"/> DETECTOR	<input type="checkbox"/> HALF-LIFE
<input type="checkbox"/> FLAG	<input checked="" type="checkbox"/> CORRECTION
<input checked="" type="checkbox"/> ERR-ANALYS	<input checked="" type="checkbox"/> COMMENT
<input checked="" type="checkbox"/> STATUS	<input type="checkbox"/> CRITIQUE

EXFOR file wizard

ENTRY: Number of Subentries:

Subentry 1:

TITLE: A study of 52V with 51V(t,d) reaction.

AUTHOR: (O.Karban, J.B.A.England, D.Barker, M.Mannion, J.M.Nelson, C.A.Ogilvie, L.Potvin, L.Zybert, R.Zybert, N.M.Clarke, K.I.Pearce, D.L.Watson, M.D.Cohler)

INSTITUTE: (2UK BIR, 2UK KCL, 2UK UK)

REFERENCE: (J, NR/A, 472, 189, 1987)

Reference Type: Abstract of conference

Edition (or Code):

Number (for Reports):

Vol: Issue (Part): Page (Paper#): Date:

#doi: Add DOI

Buttons: Add SUBENTRY, BACK, NEXT, CREATE, CANCEL, HELP, EX-FOR-HELP

New SUBENTRY001

SUBENTRY001 Context

- BIB Section
- TITLE
- AUTHO
- INSTIT
- REFER

SUBENTRY001 Wizard

- Obligatory information
- Context of SUBENTRY001
 - Keywords
 - COMMON Section

METHOD (BCINT)

Spell Checking
Compress Clear

Dictionary

ABSFY - Absolute fission yield measurement (FY)
 ACTIV - Activation
 AMS - Accelerator mass spectrometry
 ASEP - Separation by mass-separator
 ASPEC - Alpha spectrometry
 ASSOP - Associated particle
 BCINT - Beam current integrated
 BGCT - Beta-gamma coincidence technique
 BSPEC - Beta-ray spectrometry
 BURM - B
 CADMB - C
 CHARG - C

Search New Code Add to String

DETECTOR

Spell C
Compress
Dictionary

ANALYSIS

Spell C
Compress
Dictionary

INC-SOUR

Spell C
Compress
Dictionary

SAMPLE

Spell C
Compress

ERR-ANAL

Spell C
Compress
Dictionary

BACK

Information Input about Source Reference for Standrad Data

MONIT-REF (, J.B.M. de Haas+, J, NP/A, 419, 101, 1984)

Spell Checking
Compress Clear

Heading Field
MONIT1 - 1st Normalization Value, see 'MONITOR' Add

Subaccession# Field: Add Author Field: Add

Reference Field
Reference Type: Abstract of conference

Edition (or Code): Search

Number (for Reports):
 55ANS - Nuclear
 55GENEVA - 1st UN
 55MOSCOW - USSR Co
 56KIEV - Kiev Co
 57ANS - America
 57PARIS - Radiois
 58GENEVA - Second
 58PARIS - Nucl. P
 59CALCUTTA - Low Ene
 59LONDON - Conf.Nu
 59TASHKENT - Peacefu
 59VIENNA - Panel o

code

Keyword Input Option
 Cursor Position
 End of File
 Current SUBENTRY
 SUBENTRY-001

Data Table				
Selected Column: 1		Selected Row: 3		
1	E-LVL	ANG-CM	DATA-CM	DATA-ERR
2	MEV	ADEG	MB/SR	MB/SR
3	3.83	7.1985	7.5053	
4	3.83	8.175	9.1227	
5	3.83	10.374	8.5191	
6	3.83	12.374	7.8449	
7	3.83	13.384	6.8299	
8	3.83	15.016	4.6958	
9	3.83	16.05	3.2276	0.33977
10	3.83	17.522	1.4826	0.1375
11	3.83	18.981	0.7826	0.11099
12	3.83	20.202	0.60968	0.086416
13	3.83	21.755	0.91318	0.20212
14	3.83	23.283	1.7567	
15	3.83	25.05	2.2899	
16	3.83	26.851	2.1085	
17	3.83	28.458	1.8619	
18	3.83	29.476	1.4913	
19	3.83	31.31	0.99728	
20	3.83	32.618	0.32356	0.088559
21	3.83	35.97	0.45881	0.091514
22	3.83	38.919	0.67818	0.087977
23	3.83	41.334	0.53604	0.063006
24	3.83	44.356	0.38451	0.045228
25	3.83	47.015	0.1921	0.024937
26	3.83	49.113	0.48818	0.05738
27	3.83	51.911	0.44972	0.047342
28	3.83	54.7	0.45033	0.047407
29	3.83	56.908	0.38154	
30	3.83	59.753	0.21907	0.017535
31	3.83	64.958	0.171	0.018001
32	3.83	67.743	0.17853	
33	3.83	70.145	0.15992	0.018811
34	3.83	72.946	0.14328	
35	3.83	75.534	0.14547	0.018883
36	3.83	78.362	0.098693	
37	3.83	80.788	0.069796	0.0082098
38	3.83	85.557	0.079285	0.011245

Current Subentry
F0083004

DATA

Import Sort
Paste Chart
Clear All

Column

Add Insert
Copy Delete
Rename
Move Left Move Right
Calculations
Set Value

Data Sort

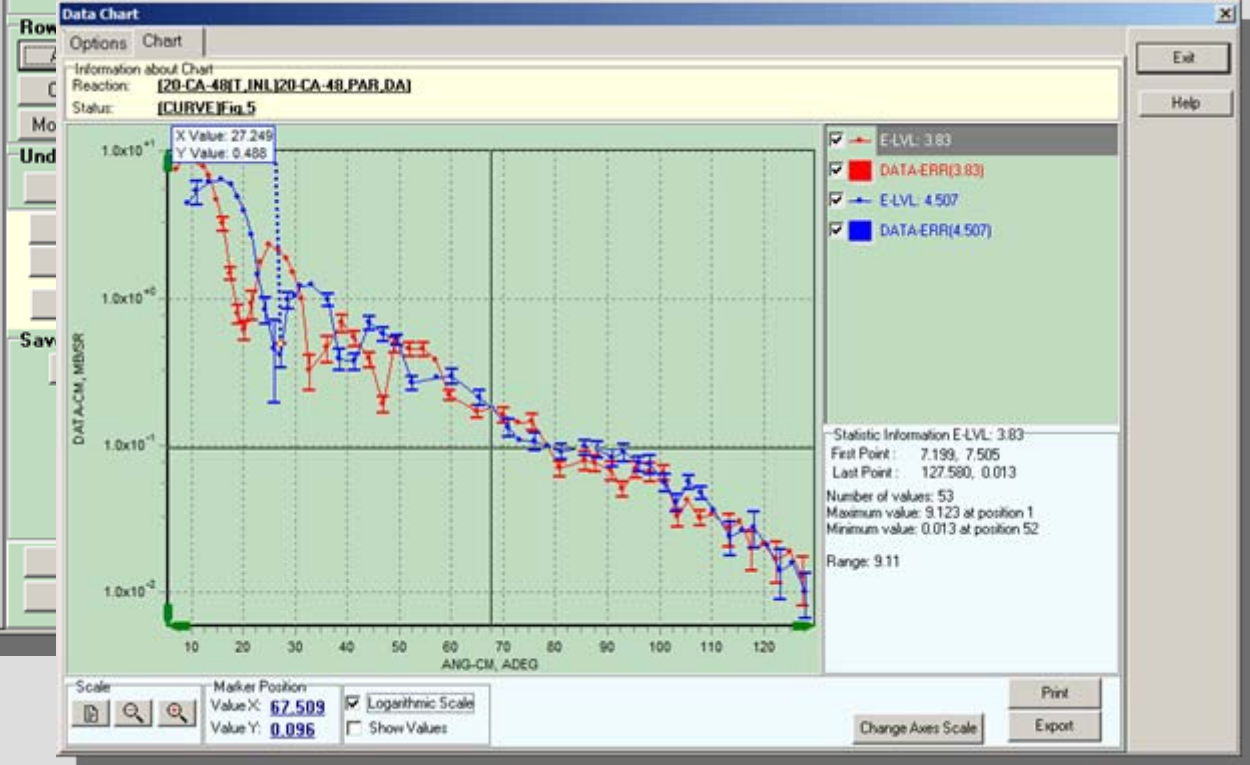
Choose Table Columns to Sort

Primary Sort Key
E-LVL

Secondary Sort Key
ANG-CM

Last Sort Key

OK
Cancel



Nuclear data compilation into database EXFOR

File Edit Processing Tools Help

EXFOR new file

```
C:\Windows\system32\cmd.exe
Не удается найти C:\MyPrograms\Exfor\exf\f0083.exf.out
Parameters:
(in) EXFOR file: [C:\MyPrograms\Exfor\exf\f0083.exf]
(out) Ordered EXFOR file: [C:\MyPrograms\Exfor\exf\f0083.exf.ord]
(out) Program output: [C:\MyPrograms\Exfor\exf\f0083.exf.out]

C:\Taova\EXFOR-Editor_Set_up\ORDER\order_windows>zorderw.exe @<aaa.inp

ORDER <Version 2010-04-08> run on 24-Aug-2010
```

ORDER Results for C:\MyPrograms\Exfor\exf\f0083.exf					
ENTRY	F0083	20041110	F0083	0	1
SUBENT	F0083001	20041110	F0083	1	1
BIB	11	34	F0083	1	2
TITLE	Spectroscopy of 47K and proton core-excitations in 48Ca		F0083	1	3
	from the 48Ca(t,a)47K reaction		F0083	1	4
AUTHOR	(C.A.Ogilvie,D.Barker,J.B.A.England,M.C.Mannion, J.M.Nelson,L.Zybert,R.Zybert)		F0083	1	5
	(J.NP/A.465.445.1987)		F0083	1	7
INSTITUTE	(2UK BIR)		F0083	1	8
REFERENCE	(VDGT,2UK BIR) NSF tandem accelerator at Daresbury		F0083	1	9
FACILITY	Tritium beam		F0083	1	10
INC-SOURCE	(TELES,SIBAR,SILI) Ten solid Delta-E - E telescopes		F0083	1	11
DETECTOR	were used. Each telescope consisted of 120 micron		F0083	1	12
	surface barrier silicon Delta-E detector with 5 mm		F0083	1	13
	lithium drifted silicon E-detector. Counting rates		F0083	1	14
	were kept below 2 kHz/telescope and resulting dead		F0083	1	15
	time was less than 1%. Horizontal acceptance for each		F0083	1	16
	telescope was +/-0.3 degree.		F0083	1	17
	(SOLST) 4 solid-state detectors were used to monitor		F0083	1	18
	target.		F0083	1	19
METHOD	(EDE)		F0083	1	20
MONITOR	Target thickness was determined by normalization grid		F0083	1	21
	on elastic data and searching for optimum optical-model		F0083	1	22
	fit at forward angles.		F0083	1	23
	Energy calibration of spectra at forward angles		F0083	1	24
	included 15N peaks originating from 16O in target.		F0083	1	25
	Calibration provided excitation energies of 47K states		F0083	1	26
	used as calibration points for backward angle spectra.		F0083	1	27
	Each run was normalised using integrated beam current		F0083	1	28
	measured in suppressed Faraday cup.		F0083	1	29
ERR-ANALYS	(ERR-T) Total error of absolute cross sections is		F0083	1	30
	mainly due to uncertainty in target thickness		F0083	1	31
	detection.		F0083	1	32
	(ANG-ERR-D) Digitizing error		F0083	1	33

Save

Close

Help

Nuclear data compilation into database EXFOR

Section input Keyword input Edit Processing Tools Help

f0083.exf

ENTRY	F0083	20041110			F0083	0	1
SUBENT	F0083001	20041110			F0083	1	1
BIB	11	34			F0083	1	2
TITLE	Spectroscopy of 47K and proton core-excitations in 48Ca				F0083	1	3
	from the 48Ca(t,a)47K reaction				F0083	1	4
AUTHOR	(C.A.Ogilvie, D.Barker, J.B.A.England, M.C.Mannion, J.M.Nelson, L.Zybert, R.Zybert)				F0083	1	5
INSTITUTE	(2UK BIR)				F0083	1	7
REFERENCE	(J,NP/A,465,445,1987)				F0083	1	8
FACILITY	(VDGT,2UK BIR) NSF tandem accelerator at Daresbury				F0083	1	9
INC-SOURCE	Tritium beam				F0083	1	10

Column: 1 Row: 1 Total: 557 Insert C:\MyPrograms\Exfor\exf\f0083.exf

EXFOR new

Errors for C:\MyP

```

Input file
ENTRY F0083
** Label
  ENTR
** End-o
  First pa
1
- Second p
ENTRY F0083
** Illeg
  DETE
  
```

Errors for C:\MyPrograms\Exfor\exf\F0083.exf

Statistics
ERRORS: 0 **WARNINGS: 1**

Error Type	SUBENTRY	Error Message	Details	Line
WARNING	F0083001	[DETECTOR]: Unknown Code	SIBAR SILI	19

The screenshot displays the EXFOR&LEXFOR HELP system interface. It features a main window titled 'EXFOR&LEXFOR HELP' and a sub-window titled 'EXFOR-Editor Help'. The sub-window shows a detailed view of the 'Main Functions' section, which lists various operations performed by the program code ExfData.

EXFOR-Editor Help - Main Functions

Program code ExfData performs the following functions:

- creation of a new file in the EXFOR format with the help of pattern and a wizard;
- graphic data digitizing;
- editing the EXFOR file with specialized editor;
- sort of entered numerical data, presenting the numerical data in a graph form;
- presenting the numerical data in a graph form;
- checking the edited file for its correspondence to the EXFOR format.

Special ToolBar provides the execution of functions listed above. It is a part of a main program window which contains a set of menus and functional buttons placed on a single panel. The entire sequence of operations on creating a compiled file in the EXFOR format is realized with the help of them.

Nuclear data compilation into database EXFOR

File Section input Keyword input Edit Processing Tools Help

EXFOR new file EXFOR wizard Sort Chart Check Order Checker

TITLE	AUTHOR	INSTITUTE	REFERENCE	FACILITY	INC-SOURCE	DETECTOR	SAMPLE	METHOD	ANALYSIS
DECAY-DATA	HALF-LIFE	PART-DET	ADD-RES	MONITOR	MONIT-REF	REL-REF	COMMENT	CRITIQUE	FLAG
SUBENTRY001	SUBENTRY001-wizard	SUBENTRY	SUBENTRY-wizard	COMMON	DATA	'C' in ENTRY Title (11th C			

Dictionary Browser

All Dictionaries

- 001 - System Identifiers
- 002 - Information Identifiers
- 003 - Institute Codes
- 004 - Reference Type
- 005 - Journal Codes
- 006 - Reports**
- 007 - Conference Codes
- 008 - Elements
- 009 - Compounds
- 015 - History codes
- 016 - Status codes
- 017 - Related Reference Codes
- 018 - Facility Codes
- 019 - Incident Source Codes
- 020 - Additional Result Codes
- 021 - Method Codes
- 022 - Detector Codes
- 023 - Analysis Codes
- 024 - Data Headings
- 025 - Data Units
- 027 - Nuclides
- 030 - Processes (REACTION SF 3)
- 031 - Branch Codes (REACTION SF 5)
- 032 - Parameters (REACTION SF 6)
- 033 - Particles
- 034 - Modifiers (REACTION SF 8)
- 035 - Data Types (REACTION SF 9)
- 036 - Quantities (REACTION SF 5-8)
- 037 - Result codes
- 042 - CINDA Quantities
- 043 - NLIB for evaluated libraries
- 045 - New CINDA quantities

Text to Find

Find

Insert Code

Dictionary Context

- UCID- - U.C., Lawrence Rad.Lab., Reports**
- UCOL-P- - Colorado Univ. Reports
- UCRL- - U.C., Lawrence Rad.Lab. (Berkeley and Livermore)
- UCRL-ID- - U.C., Lawrence Rad.Lab. (Berkeley and Livermore)
- UCRL-TRANS- - U.C., Lawrence Radiation Lab. translation
- UILU-ENG- - Univ.of Illinois, Dept. of Engin. progress rept.
- UJF- - Ustav Jad. Fyziky (Inst.Nucl.Phys.) Reports
- UJV- - Ustav Jad. Vyzkumu (Inst Nucl res). Reports
- UKNDC-P- - Progress report from U.K.N.D.C.
- UMD- - University Microfilms Order Number
- UNC- - United Nuclear Corp. Reports
- UNIV-MI- - University of Michigan Reports
- UPP- - Uppsala Univ. Annual Report
- UR- - Univ. of Rochester Reports
- USNDC- - Report to the U.S. Nuclear Data Comm.
- USNRDL- - Naval Radiological Def. Lab. Reports
- USNRDL-TR- - Naval Radiological Def. Lab. Reports
- UU-NP- - Uppsala Univ., Neutron Physics Lab. Reports
- UWFDM- - Univ.Wisconsin Fusion Engineering Program Repts
- UZB-P- - Inst.of Nucl.Phys., Tashkent, Uzbekistan, Repts
- WADC-TN- - Wright Air Devel. Centre Reports
- WADC-TR- - Wright Air Devel. Centre Reports
- WADD-TR- - Wright Air Devel. Centre Reports
- WANL- - Westinghouse Astro-Nuclear Lab. reports
- WANL-TME- - Westinghouse Astro-Nuclear Lab. Reports
- WAPD- - Westinghouse Atomic Power Div.(Bettis) reports
- WAPD-BT- - Westinghouse Atomic Power Div.(Bettis) Reports
- WAPD-T- - Westinghouse Atomic Power Div.(Bettis) Reports
- WAPD-TM- - Westinghouse Atomic Power Div.(Bettis) Reports

EXIT

Editor Options [X]

Editor Font
Courier New Change Font EXIT

Isotope and Compound Sort Type
 By Charge By Name

Dictionary Option
 Use Extinct Codes for Searching
 Use Obsolete Codes for Searching

Insert 'C' Char in Text
 In 80th position

File Section input Keyword input Edit Processing Tools Help

Editor Options... Dictionary Browser... Panels and Toolbars

EXFOR new file EXFOR wizard

TITLE AUTHOR INSTITUTE REFERENCE FACILITY INC-SOURCE DETE

DECAY-DATA HALF-LIFE PART-DET ADD-RES MONITOR MONIT-REF P

SURENTRY001 SURENTRY001.wizard SURENTRY SURENTRY.wizard CC

Customise [OK] [X]

Toolbars

- EXFOR File Structure
- First Line of Keywords
- Second Line of Keywords
- Third Line of Sections

Keyword Buttons

- TITLE
- AUTHOR
- INSTITUTE
- REFERENCE
- FACILITY
- INC-SOURCE
- DETECTOR
- SAMPLE
- METHOD
- ANALYSIS
- ERR-ANALYS
- REACTION
- CURRENT EDITI
- ENTRY Title

Default [OK] Cancel