

EXAMPLES OF EXCHANGE FILE PROCESSING BY EXFOR-EDITOR 4.02

December 03–06, 2024, IAEA, Vienna, Austria

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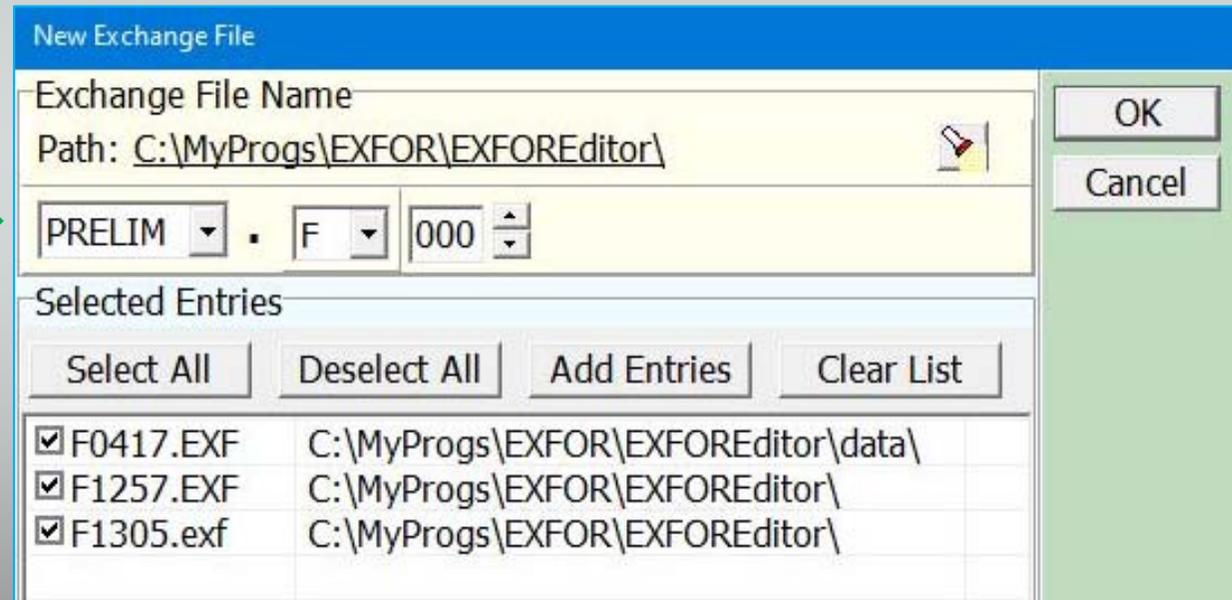
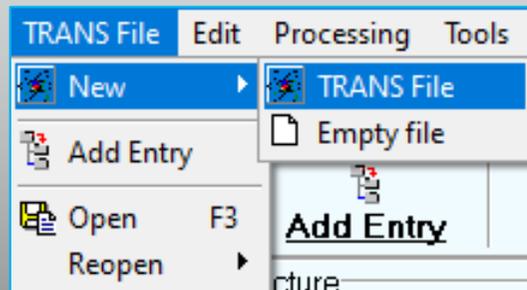
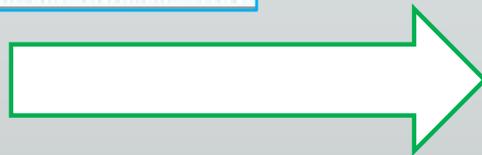
Sarov, Russian Federation

Ex.1. Create an EXFOR Exchange File:

- ❑ Set the **TRANS Mode** flag to switch on the regime of EXFOR exchange file processing

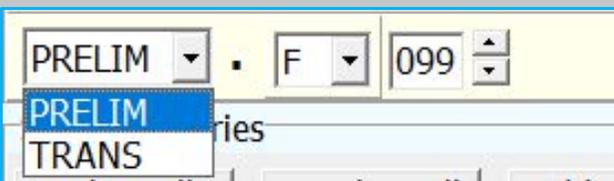


- ❑ Click the **TRANS File** button on the functional panel or select the **New/TRANS File** item of the **TRANS File** menu



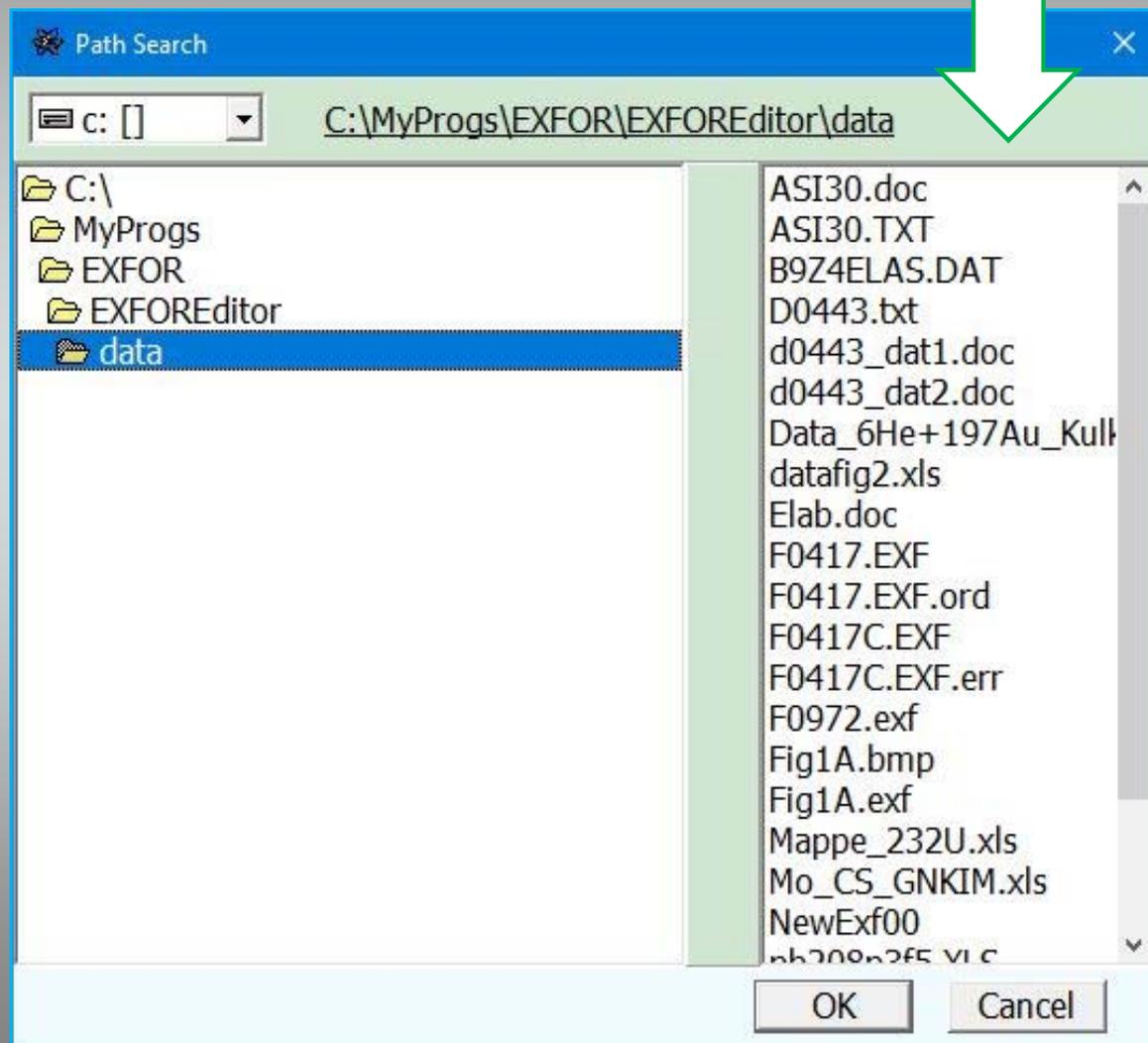
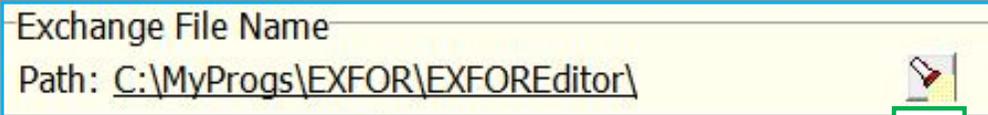
Ex.1. Create an EXFOR Exchange File:

- Select a file type from drop-down list on the **Exchange File Name** panel as a filename

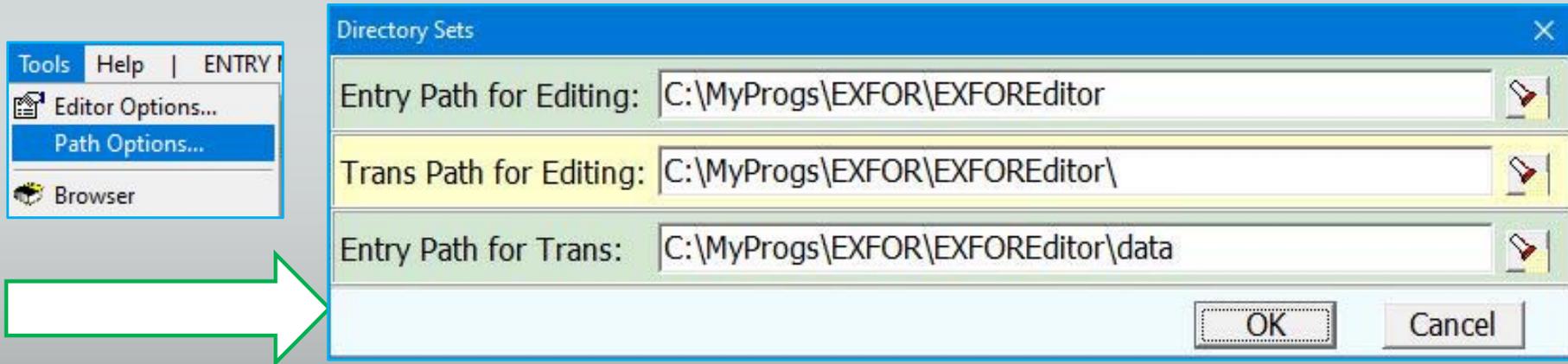


- Select a **Centre Identification Character** from drop-down list and input a three-character file identification in edit line for a filename extension.

- If necessary, change **Path** to save a new exchange file.



- Select the **Path Options** item in the **Tools** menu (the **Tools** menu is available in all working modes of the program)
- Edit path strings in the **Directory Sets** window
- Use  browse buttons to search paths



Ex1. Create an EXFOR Exchange File:

- ❑ Compose a list of entries to create a new exchange file using interface elements on the **Selected Entries** panel :

The screenshot shows the 'New Exchange File' dialog box. The 'Exchange File Name' field contains 'PRELIM.F09'. The 'Path' field contains 'C:\MyProgs\EXFOR\EXFOREditor\'. Below the path field are four buttons: 'Select All', 'Deselect All', 'Add Entries', and 'Clear List'. A table below these buttons lists five entries, each with a checked checkbox and a file path. To the right of the table are 'OK' and 'Cancel' buttons. Callouts point to various elements: 'Set select flags for all entries' points to the 'Select All' button; 'Reset select flags for all entries' points to the 'Deselect All' button; 'Add new entries to the list' points to the 'Add Entries' button; 'Clear the list of entries' points to the 'Clear List' button; 'Click a flag to select or deselect an entry file' points to the checkbox of the first entry; and 'Click to create a new exchange file' points to the 'OK' button.

Set select flags for all entries

Reset select flags for all entries

Add new entries to the list

Clear the list of entries

Click a flag to select or deselect an entry file

Click to create a new exchange file

New Exchange File

Exchange File Name

Path: C:\MyProgs\EXFOR\EXFOREditor\

PRELIM . F 09

Selected Entries

Selected	File Name	Path
<input checked="" type="checkbox"/>	a0510.EXF	C:\MyProgs\EXFOR\EXFOREditor\
<input checked="" type="checkbox"/>	A1094_C.EXF	C:\MyProgs\EXFOR\EXFOREditor\
<input checked="" type="checkbox"/>	F0417.EXF	C:\MyProgs\EXFOR\EXFOREditor\data\
<input checked="" type="checkbox"/>	F1257.EXF	C:\MyProgs\EXFOR\EXFOREditor\
<input checked="" type="checkbox"/>	F1305.exf	C:\MyProgs\EXFOR\EXFOREditor\

Select All Deselect All Add Entries Clear List

OK Cancel

□ Edit context of an exchange file:

Use this tool panel to save or load an exchange file

Use this tool panel to edit an exchange file: to copy or cut a selected text into the clipboard, to paste text from the clipboard, to find and replace a sample string in the file, to undo or redo last operations

Use this tree structure to navigate through a file

Check the positions of input or edit strings according to the EXFOR rules

The screenshot shows the EXFOR editor interface. On the left is a tree view of the file structure, and on the right is a table of data entries. The table has columns for Column, Row, Total, Insert, and File Name. The data includes various EXFOR entries like TRANS, ENTRY, SUBENT, BIB, ENDBIB, COMMON, DATA, ENDDATA, ERR-ANALYS, FACILITY, DETECTOR, MONITOR, and HISTORY.

Column	Row	Total	Insert	File Name
TRANS	F099	20240920		C:\MyProgs\EXFOR\EXFOREditor\PRELIM.F099
ENTRY	C F0417	20130711		F0417 0 1
SUBENT	C F0417001	20130711		F0417 1 1
BIB	10	29		F0417 1 2
TITLE	Investigation of (3He,3He) and (3He,t)- reactions on 10B, 11B and 13C.			F0417 1 3
AUTHOR	(F.Nusslin,P.Braun-Munzinger)			F0417 1 4
INSTITUTE	(2GERMPH)			F0417 1 5
REFERENCE	(J,2P,240,217,1970)			F0417 1 6
SAMPLE	The targets were self-supporting foils prepared by vacuum evaporation of the enriched isotopes. The target thicknesses were determined by means of energy loss measurements with alpha source and by fitting the elastic scattering data to optical model calculations.			F0417 1 7
ERR-ANALYS	(DATA-ERR) Absolute cross section error			F0417 1 8
	(ERR-DIG) Data digitizing error			F0417 1 9
FACILITY	(VDGT,2GERMPH)			F0417 1 10
DETECTOR	(TELES) 3He particles were detected in semiconductor counter telescopes.			F0417 1 11
	(PLATE,MAGSP) The tritons were analysed with a magnetic spectrograph using nuclear emulsion plates			F0417 1 12
MONITOR	1 (13-AL-27 (N,A) 11-NA-24,,SIG)			F0417 1 13
	2 (41-NB-93 (N,2N) 41-NB-92-M,,SIG)			F0417 1 14
	3 (41-NB-91 (N,2N) 41-NB-90-M,,SIG)			F0417 1 15
	4 (41-NB-91 (N,2N) 41-NB-90-M,,SIG)			F0417 1 16
HISTORY	(19911225C)			F0417 1 17
	(20130711A) In sub 001 AUTHOR, FACILITY were corrected, INSTITUTE, error definition were changed, ERR-ANALYS was changed. SAMPLE, DETECTOR were changed.			F0417 1 18
	In sub 002-004 SF9=EXP in REACTION was deleted, ERR-ANALYS was added. In sub 003, 004 data for F-TWT=2.00 MeV and F-TWT=2.367 MeV were redigitized			F0417 1 19

❑ Add entries to an exchange file:

Click the **Add Entry** button to add entries to the edited file

Select entry filenames from the list

The screenshot shows the EXFOR Editor interface. On the left, the 'TRANS File Structure' tree shows a selected 'ENTRY F1257'. The main window displays a data table with columns for 'Column', 'R', and numerical values. A file list window is open, showing a selection of EXFOR files. A dialog box titled 'Add Position in TRANS' is open, with the 'Before current ENTRY F1257' option selected.

Имя	Дата изменения	Тип
F0417.EXF	17.04.2015 16:48	Файл "EXF"
F0417C.EXF	28.05.2014 13:34	Файл "EXF"
F0972.exf	20.10.2008 15:50	Файл "EXF"
Fig1A.exf	25.03.2013 13:02	Файл "EXF"

Add Position in TRANS

ENTRY Add Options

- After current ENTRY F1257
- Before current ENTRY F1257
- End of TRANS

Buttons: OK, Cancel

Specify the position of entry insertion

- ❑ Delete the selected entry from the exchange file:

Select an ENTRY title in the tree file structure or click an ENTRY title in the editor area

TRANS File Structure

- TRANS F0...
- ENTRY C...
- ENDENTRY
- ENTRY 257
- ENDENTRY
- ENTRY F1305**
- SUBENT F1305001
 - BIB
 - ENDBIB
 - COMMON
 - ENDSUBENT 34

C:\MyProgs\EXFOR\EXFOREditor\PRELIM.F099

Column: 37 Row: 10768 Total: 11312 Insert

NOCOMMON		
NODATA		
ENDSUBENT		
ENTRY	3	0
ENTRY	F1305	20170110
	F1305001	20170110
	12	27
Interaction of B-11 with Bi-20		
intermediate energies.		

CONFIRMATION

?

Delete ENTRY F0417?

Confirm the deletion of the selected entry

❑ Edit an entry of the exchange file in the ENTRY mode:

Select an ENTRY title in the tree file structure or click an ENTRY title in the editor area.

Column: 23 Row: 363 Total: 11312 Insert C:\

53.449	6.8534E-01	
58.796	5.1178E-01	
64.966	3.6404E-01	
245	2.0386E-01	
162	2.9079E-01	
611	3.3437E-01	
87.084	4.2319E-01	
ENDDATA	15	0
ENDSUBENT	27	0
ENDENTRY	10	0
ENTRY	F1257	20150520
SUBENT	F1257001	20150520

Processing Tools Help | ✓ ENTRY Mode | TRANS Mode |

Renumber Subentries before Ordering Use 67-80 Columns

Sort Chart Order Check Checker Num.Check Spell Check X4+ Viewer

Entry Number: F1257 Set Entry Date: 20240925 Set

TITLE AUTHOR INSTITUTE FACILITY INC-SOURCE DETECTOR SAMPLE METHOD ANALYSIS ERR-ANALYS REACTION CURRENT EDIT ENTRY+ENDENTRY Add to TRANS

DECAY-DATA HALF-LIFE PART-D-RES MONITOR MONIT-REF REL-REF COMMENT CRITIQUE FLAG STATUS SUPPL-INF REACTION (New)

SUBENTRY SUBENTRY-Wizard SUBENTRY SUPPL-INF COMMON DATA Alteration Flag C Alteration Flag I STATUS to Each SUBENT

ENTRY File Structure

ENTRY F1257

- SUBENT F1257001
 - BIB
 - TITLE
 - AUTHOR
 - INSTITUTE
 - REFERENCE
 - REL-REF
 - FACILITY

Column: 1 Row: 1 Total: 10406 Insert C:\MyProgs\EXFOR\EXFOREditor\F1257.EXF

ENTRY	F1257	20150520
SUBENT	F1257001	20150520
BIB	12	42
TITLE	High-precision measurements of the pion-proton elastic differential cross sections in the second resonance region.	
AUTHOR	(I.G.Alekseev, V.A.Andreev, I.G.Bordyuzhin, W.J.Briscoe,	

Click to start the ZOrderW program to order an exchange file

TRANS	ENTRY	SUBENT
20240920		
	C	
		C

Click to save the results

TRANS	ENTRY	SUBENT	BIB	TITLE	AUTHOR	INSTITUTE	REFERENCE	SAMPLE	ERR-ANALYS	FACILITY	DETECTOR	MONITOR	HISTORY	ENDBIB
F099	F0417	F0417001	10 29	Investigation of (3He,3He) and (3He,t)- reactions on 10B, 11B and 13C.	(F.Nusslin,P.Braun-Munzinger)	(2GERMPH)	(J.ZP.240,217,1970)	The targets were self-supporting foils prepared by vacuum evaporation of the enriched isotopes. The target thicknesses were determined by means of energy loss measurements with alpha source and by fitting the elastic scattering data to optical model calculations.	(DATA-ERR) Absolute cross section error (ERR-DIG) Data digitizing error	(VDGT,2GERMPH)	(TELES) 3He particles were detected in semiconductor counter telescopes.	1(13-AL-27(N,A)11-NA-24,SIG) 2(41-NB-93(N,2N)41-NB-92-M,SIG) 3(41-NB-91(N,2N)41-NB-90-M,SIG) 4(41-NB-91(N,2N)41-NB-90-M,SIG)	(19911225C) (20130711A) In sub 001 AUTHOR, FACILITY were corrected, INSTITUTE, error definition were changed. ERR-ANALYS was changed, SAMPLE, DETECTOR were changed. In sub 002-004 SF9=EXP in REACTION was deleted. ERR-ANALYS was added. In sub 003, 004 data for E-LVL=2.00 MeV and E-LVL=2.367 MeV were redigitized respectively. Sub 005-010 were added.	29 0

Ex.4. Check EXFOR Exchange File with the help of the ZCHEX Program:

Click to start the ZChex program to check an exchange file

Nuclear Data Compilation into EXFOR Format Version 4.02

TRANS File Edit Processing Tools Help | ENTRY Mode | TRANS Mode

TRANS File Structure

- TRANS F099
 - ENTRY C F0417
 - SUBENT C F0417001
 - BIB

Column: 1	Row: 1	Total:	Insert	C:\M
TRANS	F099	40920		
ENTRY	C F0417	30711		
SUBENT	C F0417001	30711		
BIB	10	29		

Click a line with an error or warning description to highlight the wrong line in the edit area.

HISTORY ((20221025R)) Data were obtained from AUTHOR F1257 4 480

1	12	25	34	45	58	67
Errors for C:\MyProgs\EXFOR\EXFOREdit\PRELIM.F099						
ENTRY F1305						
First pass completed with no fatal errors						
1						
- Second pass checking -						
ENTRY F0417						
ENTRY F1257						
** Illegal code field						F1257004
HISTORY ((20221025R)) Data were obtained from AUTHOR						F1257004 480
ENTRY F1305						

Ex.4. Check EXFOR Exchange File with the help of Trans Checker Program:

Click to start the Trans Checker program to check an exchange file

Nuclear Data Compilation into EXFOR Format Version 4.02

TRANS File Edit Processing Tools Help | ENTRY Mode | ✓ TRANS Mode |

TRANS File Add Entry Order Check Checker

TRANS File Structure

- TRANS F099
 - ENTRY C F0417
 - SUBENT C F0417001
 - BIB

C:\MyProgs\EXFOR\EXFOREditor\PRELIM.F099

Column: 1 Row: 1 Total: 11312 Inse

TRANS	F099	20240920
ENTRY	C F0417	20130711
SUBENT	C F0417001	20130711
BIB	10	29

#doi:10.1103/PhysRevC.94.024618

REL-REF (R,,,B,FIRESTONE,,1998) Nuclear properties of residuals

are given.

F1305	1	10
F1305	1	11
F1305	1	12

1 | 12 | 23 | 34 | 5 | 56 | 87

Errors for C:\MyProgs\EXFOR\EXFOREditor\PRELIM.F099

Statistics

ERRORS: 0 WARNINGS: 8

Error Type	SUBENTRY	Error Message	Details	Line
WARNING	F1257002	[DATA]: Duplicate data point	Data point {ANG-CM=4E+1,MOM=8	5070
WARNING	F1257004	[HISTORY]: Bad History (date length)	(20221025R)	10761
WARNING	F1305001	[REL-REF]: Bad Book reference coding, only two subfields given, Volume and Page/Paper# subfields absence must be	B,FIRESTONE,,1998	10780
WARNING	F1305001	OBS METHOD code: obsolete (not to be used on EXFOR	MASSP	10803

Order Check Checker		TRANS Information	
C:\MyProgs\EXFOR\EXFOREditor\PRELIM.F099			
Column: 1	Row: 1	Total: 11311	Insert C:\MyProgs\EXFOR\EXFOREditor\PREL
TRANS	F099	20240926	
ENTRY	C	F0417	20130711
SUBENT	C	F0417001	20130711
BIB	10	29	
TITLE	Investigation of (3He,3He) and (3He,t)- reactions on 10B, 11B and 13C.		

Click to obtain a table with service information about the current exchange file

TRANS Information

Information from: PRELIM.F099

Exchange File Identification: F099 Input Date: 26.09.2024

ENTRY	FLAG	FIRST AUTHOR	REFERENCE	COMMENT
F0417	C	F.Nusslin	J,ZP,240,217,1970	Check HISTORY code
F1257		I.G.Alekseev	J,PR/C,91,025205,2015	
F1305		G.S.Karapetyan	J,PR/C,94,024618,2016	

Export to: Text File, Data Base, OK

Click to export the table into an external text file

Click to export the table into the service database file

```

1 Exchange File Identification: F099
2 Input Date: 26.09.2024
3 ENTRY FLAG FIRST AUTHOR REFERENCE COMMENT
4 F0417 C F.Nusslin J,ZP,240,217,1970 Check HISTORY code
5 F1257 I.G.Alekseev J,PR/C,91,025205,2015
6 F1305 G.S.Karapetyan J,PR/C,94,024618,2016
  
```

DateBase_TRANS.DOC - Word

F099	26.09.2024	F0417	C	F.Nusslin	J,ZP,240,217,1970	Check HISTORY code
F099	26.09.2024	F1257		I.G.Alekseev	J,PR/C,91,025205,2015	
F099	26.09.2024	F1305		G.S.Karapetyan	J,PR/C,94,024618,2016	

Ex.6. Input and Edit Data for the STATUS Keyword according to the New EXFOR Rules

The screenshot illustrates the workflow for entering and editing data for the STATUS keyword. It shows a main window with a menu bar (ANALYSIS, REACTI, FLAG, STATUS, DATA, Alteration Flag C) and a dictionary list. A callout box points to the STATUS menu item, stating: "Click to open the STATUS keyword window".

The dictionary list contains various codes and descriptions, such as "APRVD - Approved by author" and "CURVE - Data read from a curve". A callout box explains: "The context of the STATUS keyword window depends on a selected code word".

Two intermediate windows, titled "Input of data status and actual value source", show the process of selecting a code word. The first window shows "(APRVD)" selected, and the second shows "(COREL, A0099002)".

The main STATUS window displays the selected code word and its description: "(CURVE, , I.G.Alekseev+, COREL - Data correlated with another data set)". Below this, there are fields for "Subentry Number (8 characters):" with the value "A0099002" and an "Add" button. At the bottom, there are fields for "Author: I.G.Alekseev+", "Reference: J,PR/C,91,025205,2015", and "Figure(s) #:". A "New Record" button is also present.

Ex.6. Input and Edit Data for the STATUS Keyword according to the New EXFOR Rules

	(DATA-ERR) Data errors were received from authors.
STATUS	(TABLE) Data were received from Dr. I.G.Alekseev.
HISTORY	(20150520C)

EDIT...

Select the EDIT item to open the STATUS edit Window

Input of data status and actual value source

STATUS | |(TABLE,,I.G.Alekseev+,J,PR/C,91,025205,2015) Data were received from Dr. I.G.Alekseev.

Spell Check | Compress | Clear

Dictionary: TABLE - Data presented by authors | Search | New Code | Add to String

Author: I.G.Alekseev+ | **New Record**

Reference: J,PR/C,91,025205,2015

Data (unpublished) | Table(s) #:

Current Position: [SUBENTRY F1257001 BIB section](#)

OK | Cancel | Help | EXFOR-Help

The Author and Reference fields are filled automatically

Click to create a new STATUS record in the STATUS field

Input a table number from the source

Click to insert or replace the STATUS information in the subentry

	(DATA-ERR) Data errors were received from authors.
STATUS	(TABLE,,I.G.Alekseev+,J,PR/C,91,025205,2015) Data were received from Dr. I.G.Alekseev.
HISTORY	(20150520C)

Ex.6. Input and Edit Data for the STATUS Keyword according to the New EXFOR Rules

Click to edit or input data for the STATUS keyword in every subentry of the current entry beginning with the second one

ENTRY SUBENTRY-Wizard SUBENTRY SUPPL-INF COMMON DATA Alteration Flag C Alteration Flag I STATUS to Each SUBENT

Column: 39 Row: 9 Total: 544 Insert C:\MyProgs\EXFOR\EXFOR

F1257.EXF F1305.exf F0417C.EXF

ENDBIB	27	0
COMMON	2	3
ERR-2	ERR-3	
PER-CENT	PER-CENT	
3.	10.	
ENDCOMMON	3	0
ENDSUBENT	34	0
SUBENT	F1305002	20170110
BIB	2	2
REACTION	(83-BI-209 (5-B-11, X) ELEM/MASS, IND, SIG)	
STATUS	(TABLE) Tb1.1.	
ENDBIB	2	0
COMMON	1	3
EN		
MEV		
146.0		
ENDCOMMON	3	0

Add STATUS to Each SUBENT with DATA

Author: G.S.Karapetyan+

Reference: J,PR/C,94,024618,2016

SUBENTRY	CODE	#TABLE (FIG.)
F1305002	TABLE	1
F1305003	TABLE	2
F1305004	TABLE	4
F1305005	TABLE	4
F1305006	TABLE	6
F1305007	TABLE	7
F1305008	TABLE	8

OK Cancel

The Author and Reference fields are filled automatically

Input a table or figure number from the source

Select a code word from a drop-down list



Click to insert or replace the STATUS information in the subentry

STATUS (TABLE,,G.S.Karapetyan+,J,PR/C,94,024618,2016) Table 1

ENDBIB 2 0 F1305 2

NUCLEI
Experiment

Measurement of Cumulative Yield of the ^{103}Ru Radionuclide for ^4He -, ^3He -, Proton- and Deuteron-Induced Reactions on ThO_2 Targets

A. A. Smirnov^{1)*}, M. N. German¹⁾, V. A. Zagryadskiy¹⁾,
K. A. Makoveeva¹⁾, T. Y. Malamut¹⁾, V. I. Novikov¹⁾, and V. N. Unezhev¹⁾

The source author list

Author List Input

AUTHOR A. A. Smirnov1)*, M. N. German1), V. A. Zagryadskiy1), K. A. Makoveeva1), T. Y. Malamut1), V. I. Novikov1), and V. N. Unezhev1)|

Compress Clear

Use spaces between Authors Convert Cyrillic Name

Delete Footnotes (Digits) Name of Collaboration: nTOF Collaboration Add

Delete Footnote (Letters)

The author list pasted from the clipboard

Click do delete digits and asterisks as footnotes

AUTHOR (A.A.Smirnov, M.N.German, V.A.Zagryadskiy, K.A.Makoveeva, T.Y.Malamut, V.I.Novikov, V.N.Unezhev)

Compress Clear

The result author list

Ex.7. Edit Data for the AUTHOR Keyword

Yu. G. Sobolev^{a, *}, Yu. E. Penionzhkevich^{a, b}, V. V. Samarin^{a, c}, M. A. Naumenko^a, S. S. Stukalov^a,
I. Siváček^{a, d}, S. A. Krupko^a, A. Kugler^d, and J. Louko^e

The source author list

^aJoint Institute for Nuclear Research, Dubna, Moscow oblast, 141980 Russia
^bNational Nuclear University (MEPhI), Moscow, 115409 Russia

- Compress
- Case Format...
- Substitute
- Copy
- Cut
- Paste
- Clear
- Undo

AUTHOR

Yu. G. Soboleva, *, Yu. E. Penionzhkevicha, b, V. V. Samarina, c, M. A. Naumenkoa, S. S. Stukalova, I. Sivaacka, d, S. A. Krupkoa, A. Kuglerd, and J. Loukoe

The author list pasted from the clipboard

Compress Clear

Use spaces between Authors Convert Cyrillic Name Name of Collaboration

Delete Footnotes (Digits) nTOF Collaboration

Delete Footnotes (Letters) Add

Click do delete letters and asterisks as footnotes

AUTHOR

(Yu.G.Sobolev, Yu.E.Penionzhkevich, V.V.Samarin, M.A.Naumenko, S.S.Stukalov, I.Sivaack, S.A.Krupko, A.Kugler, J.Loukoeb)

The result author list

**THANK YOU
FOR YOUR
ATTENTION!**