

## How to plot together experimental cross sections and evaluated data using NDS-NNDC EXFOR-ENDF Web-interface.

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I. Start from ENDF Request form.

- 1) Fill in your request (Target, Reaction, Quantity, etc.)
- 2) Submit your request.

**Standard Request** (example): Go to: [Advanced Request](#)

**Parameters:**  Submit

Target  Ni-58

Reaction  n,a

Product  NA-24\*

Quantity  SIG; DA/DE

[More Options...](#)

**Libraries:**  All  Selected

**Major Libraries** **Other Libraries**

ENDF/B-VI.8  Special purpose

JENDL-3.3  Derived

JEFF-3.1  Archival

CENDL-2

BROND-2.2

**Options:**

Sort by:  Evaluations  Reactions

**Clone Request:**

**Feedback:**

**Note:**

- all criteria are optional (selected by checking )
- selected criteria are combined for search with logical **AND**
- criteria separated in a field by ";" are combined with logical **OR**
- wildcards and intervals are available

Use Help

II. You came to Selection-form with results of the search in database.

3) Select data which you are going to plot (optional - default: All)

4) Select option "Quick Plot (MF3)"

5) Submit your selection

Request #623  
ENDF Data Search... SQL... Reading...  
Results: Evaluations: 9 Sections: 14 Reactions: 2 Output...

### ENDF Data Selection

Data Selection:  Selected  Unselected  All

Output Formats:  ENDF  Quick Plot (MF3)  Preprocessing and Plots

Display: [\[Reactions only\]](#) Sort by: [\[Evaluations\]](#) Use +(-) to show(hide) Evaluations of individual Reac

1) NI-58 (N,A) FE-55, SIG MT=107 MF=3 NSUB=10  
MF3: [SIG] Cross sections MT107: [Z,A] Production of an alpha particle, plus a residual. Sum of MT=8

1	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:15	JENDL-3.3	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	E=20MeV Lab=NAIG Date=20020214	S.IIJIMA
2	<input checked="" type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:15	JENDL-3.3	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	T=300K E=20MeV Lab=NAIG Date=20020214	S.IIJIMA
3	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:16	ENDF/B-VI	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	E=150MeV Lab=LAML,ORNL Date=20011108	S.CHIBA,M.B.CHADWICK,LARSON
4	<input checked="" type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:15	ENDF/B-VI	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	T=300K E=150MeV Lab=LAML,ORNL Date=20010926	S.CHIBA,M.B.CHADWICK,LARSON
5	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:16	JEFF-2.2	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	Lab=NEA Date=920101	JEF SCG
6	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:34	JEFF-3.0	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	E=20MeV Lab=IRK-IJS Date=DIST-APR02	EUROPEAN JOINT COLLABORATION
7	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:34	JEFF-3.1	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	E=20MeV Lab=IRK-IJS Date=050504	EUROPEAN JOINT COLLABORATION
8	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:41	JEFF-3.1/A	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	T=293K E=20MeV Lab=UKAEA Date=DIST-JUL03	Forrest, Kopecky, Sublet, Koning
9	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:18	BROND-2	MAT=2811	<a href="#">@e</a> <a href="#">@i</a>	Lab=CJD- FE1 Date=DIST-DEC90	A.I.BLOKHIN,A.V.IGNATYUK+

2) NI-58 (N,A) FE-55, DA/DE MT=107 MF=6 NSUB=10  
MF6: [DA/DE] Product energy-angle distributions MT107: [Z,A] Production of an alpha particle, plus a

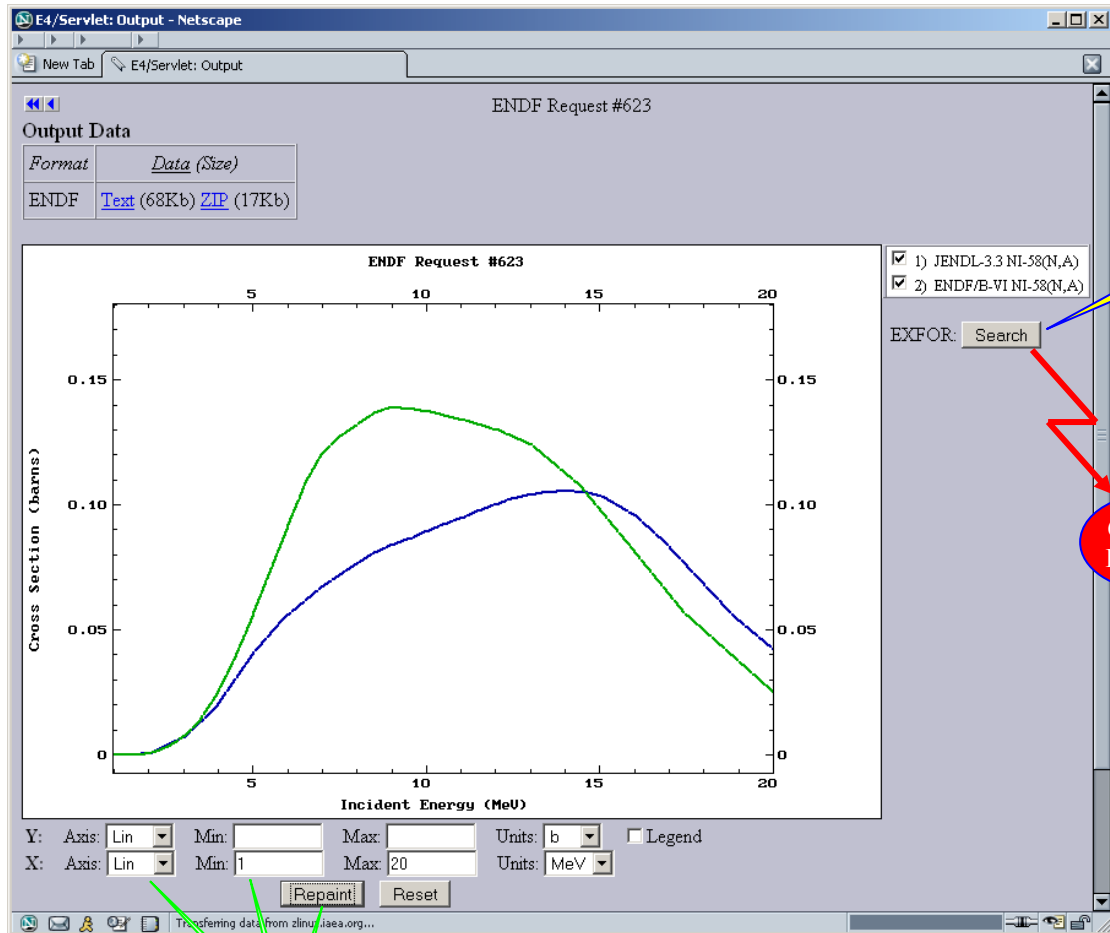
10	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:1078	ENDF/B-VI	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	E=150MeV Lab=LAML,ORNL Date=20011108	S.CHIBA,M.B.CHADWICK,LARSON
11	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:1078	ENDF/B-VI	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	T=300K E=150MeV Lab=LAML,ORNL Date=20010926	S.CHIBA,M.B.CHADWICK,LARSON
12	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:1009	JEF-2.2	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	Lab=NEA Date=920101	JEF SCG
13	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:1009	JEFF-3.0	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	E=20MeV Lab=IRK-IJS Date=DIST-APR02	EUROPEAN JOINT COLLABORATION
14	<input type="checkbox"/>	<a href="#">@s</a> <a href="#">NT107</a>	Lines:1009	JEFF-3.1	MAT=2825	<a href="#">@e</a> <a href="#">@i</a>	E=20MeV Lab=IRK-IJS Date=050504	EUROPEAN JOINT COLLABORATION

[@e](#) = Evaluation Summary  
[@s](#) = Section Summary and Tabulated Data  
[@i](#) = General Information Section (MF=1, MT=451)  
[\[Glossary\]](#): meaning of abbreviations and variables

III. You came to Output-form with pointer to ENDF data and plot of selected data.

+) You can change parameters of the plot and repaint picture (bottom).

6) In order to have experimental data on the same plot use EXFOR "Search"



6

6. Go to EXFOR

+

IV. Program opens a new Window and you came to EXFOR Selection-form with experimental datasets found according to evaluated data on the last plot.

7) Select datasets for plot (optional - default: All)

8) Submit

Request #337  
EXFOR Data Search... SQL... Reading...  
Results: Reactions: 1 Datasets: 10 Output...

**Data Selection (for ENDF Request #623)**

Submit Reset

Display:  
@i = Summary  
X4 = EXFOR  
T4 = Tabulated Data

Data for Output:  Selected  Unselected  All

Output Formats:  EXFOR  Bibliography  Plot

Computational Output: 1) TAB  2) C4  +plot

Narrow Energy (optional), eV: Min:  Max:

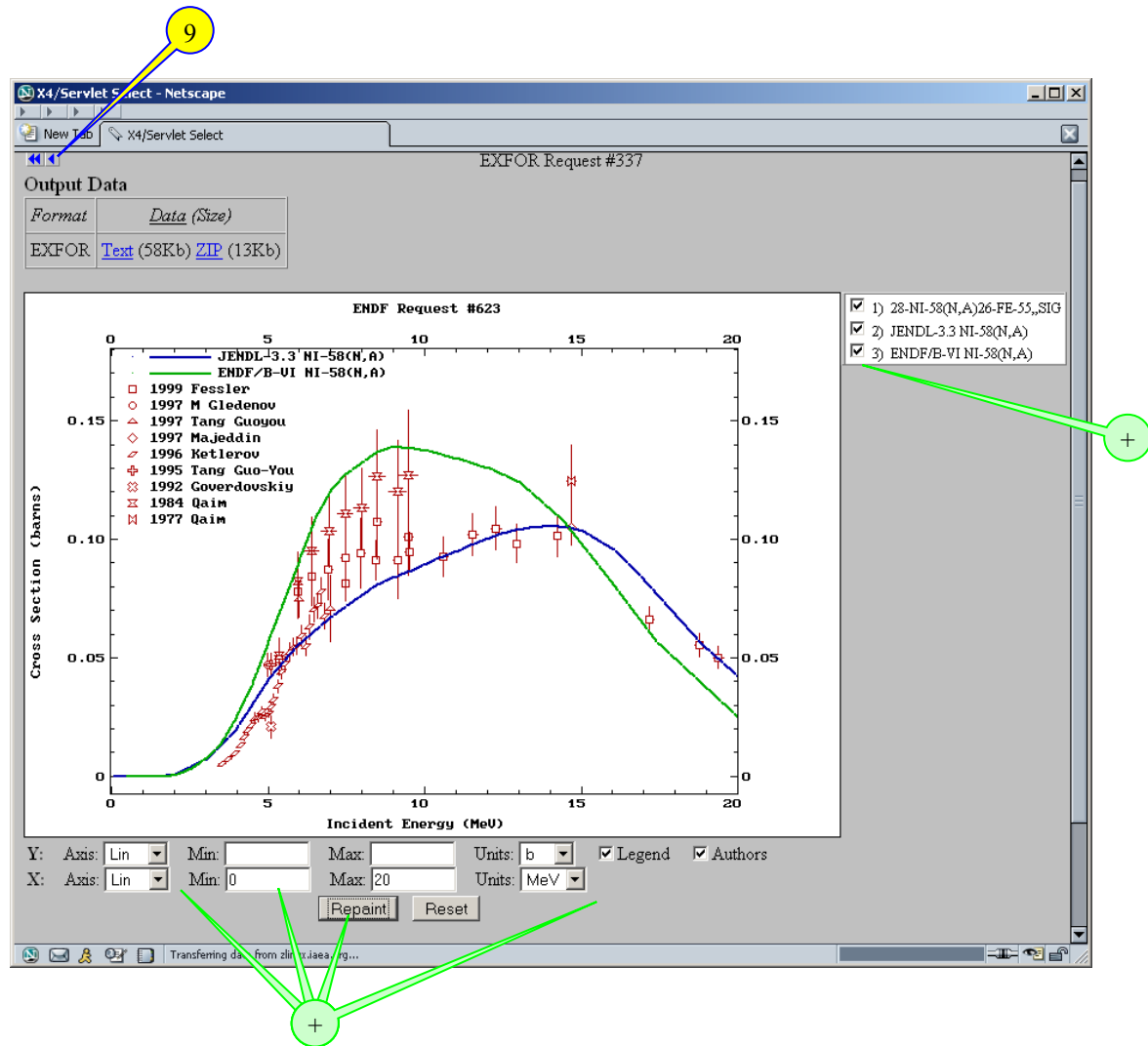
n	Year	Author-1	Energy range, eV	Points	Reference	Display	Accession#
<input type="radio"/> 1)		28-NI-58 (N, A) 26-FE-55, , SIG				@i	
Quantity: [CS] Cross section							
<input type="checkbox"/> 1	1999	A. Fessler+	7.48e+6 1.94e+7	11	J, RCA, 84, (1), 1, 1999	@i X4 T4	22465003
<input type="checkbox"/> 2			5.36e+6 9.49e+6	9		@i X4 T4	006
<input type="checkbox"/> 3	1997	A. D. Majeddin+	1.47e+7 1.47e+7	1	W, CSIKAI, 97	@i X4 T4	31481005
<input type="checkbox"/> 4	1997	Tang Guoyou+	6.00e+6 7.00e+6	2	J, CNDP, 17, 1, 199706	@i X4 T4	31483002
<input type="checkbox"/> 5	1997	Yu. M. Gledenov+	5.00e+6 7.00e+6	3	C, 97TRIEST, 1, 514, 199705	@i X4 T4	31507004
<input type="checkbox"/> 6	1996	V. V. Kettlerov+	3.55e+6 6.83e+6	29	J, YK, 1996, (1), 121, 9605	@i X4 T4	41239002
<input type="checkbox"/> 7	1995	Tang Guo-You+	5.10e+6 5.10e+6	1	J, CNP, 17, (1), 45, 95	@i X4 T4	31446002
<input type="checkbox"/> 8	1992	A. A. Goverdovskiy+	5.12e+6 5.12e+6	1	R, FEI-2242, 199203	@i X4 T4	41152003
<input type="checkbox"/> 9	1984	S. M. Qaim+	5.36e+6 9.49e+6	9	J, NSE, 88, (2), 143, 8410	@i X4 T4	21958002
<input type="checkbox"/> 10	1977	S. M. Qaim+	1.47e+7 1.47e+7	1	J, NP/A, 283, 269, 7706	@i X4 T4	20721031

@i = Show Summary (with code explanation, links to dependent data, etc)  
X4 = EXFOR  
T4 = Tabulated Data

V. You came to EXFOR Output-form with pointer to data and plot of selected experimental data with evaluations.

+ ) You can change parameters of the plot and repaint picture.

9) You can also go back, select other datasets, submit new request and have another plot.



The End