Sigma Retrieval System

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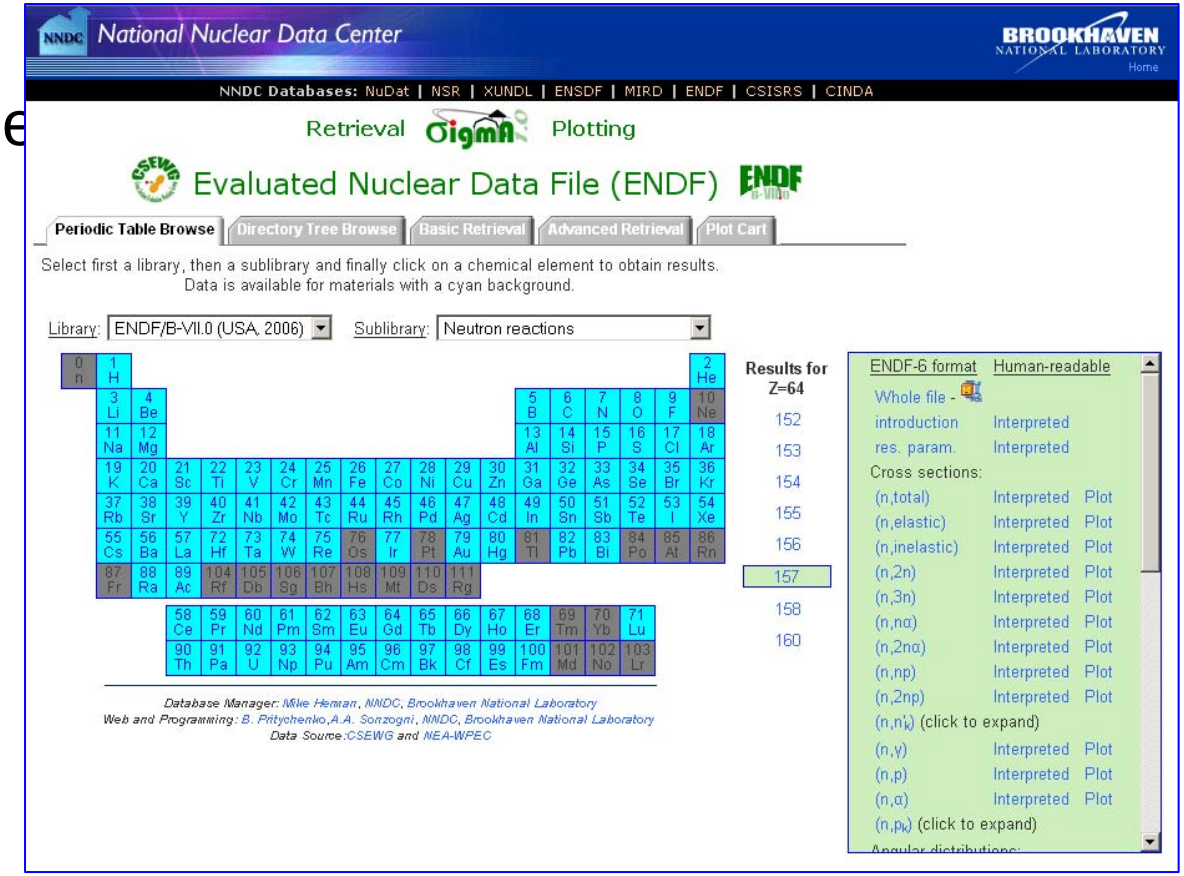
Sigma 1.0

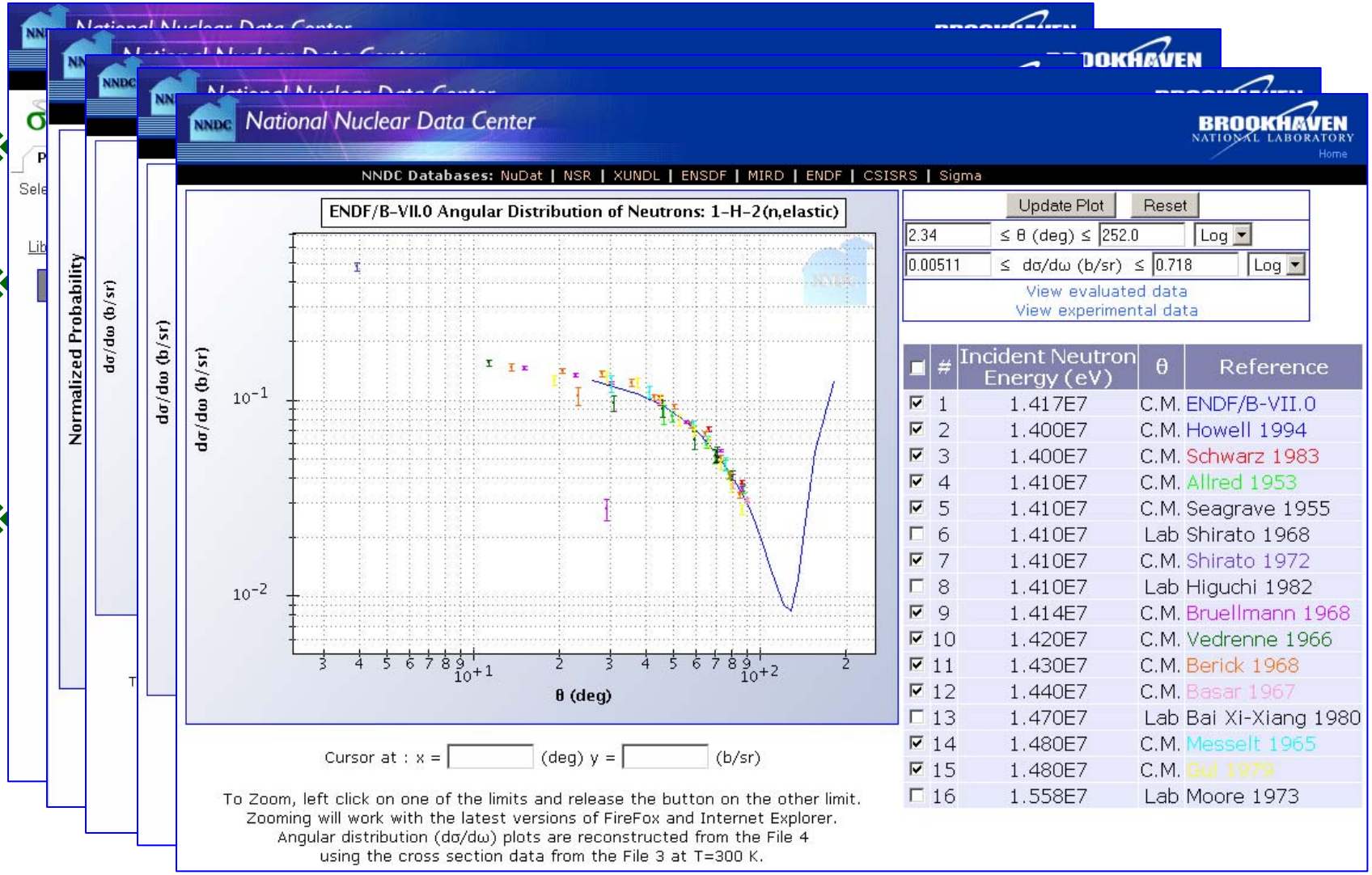
- Released in April 2007, *http://www.nndc.bnl.gov/sigma.*
- User-friendly access to evaluated and experimental cross sections.
- Next step: Go be



Sigma 2.0

- Released in April 2008.
- New features:
  - Angular distributions of emitted neutrons (if available in MF=4).
  - Energy distributions of emitted neutrons and photons (if available in MF=5).
  - Web implementation of ENDVER package (Full Spectra).
  - Computations (mathematical operations) on cross sections (MF=3). (Talk by A. Sonzogni)

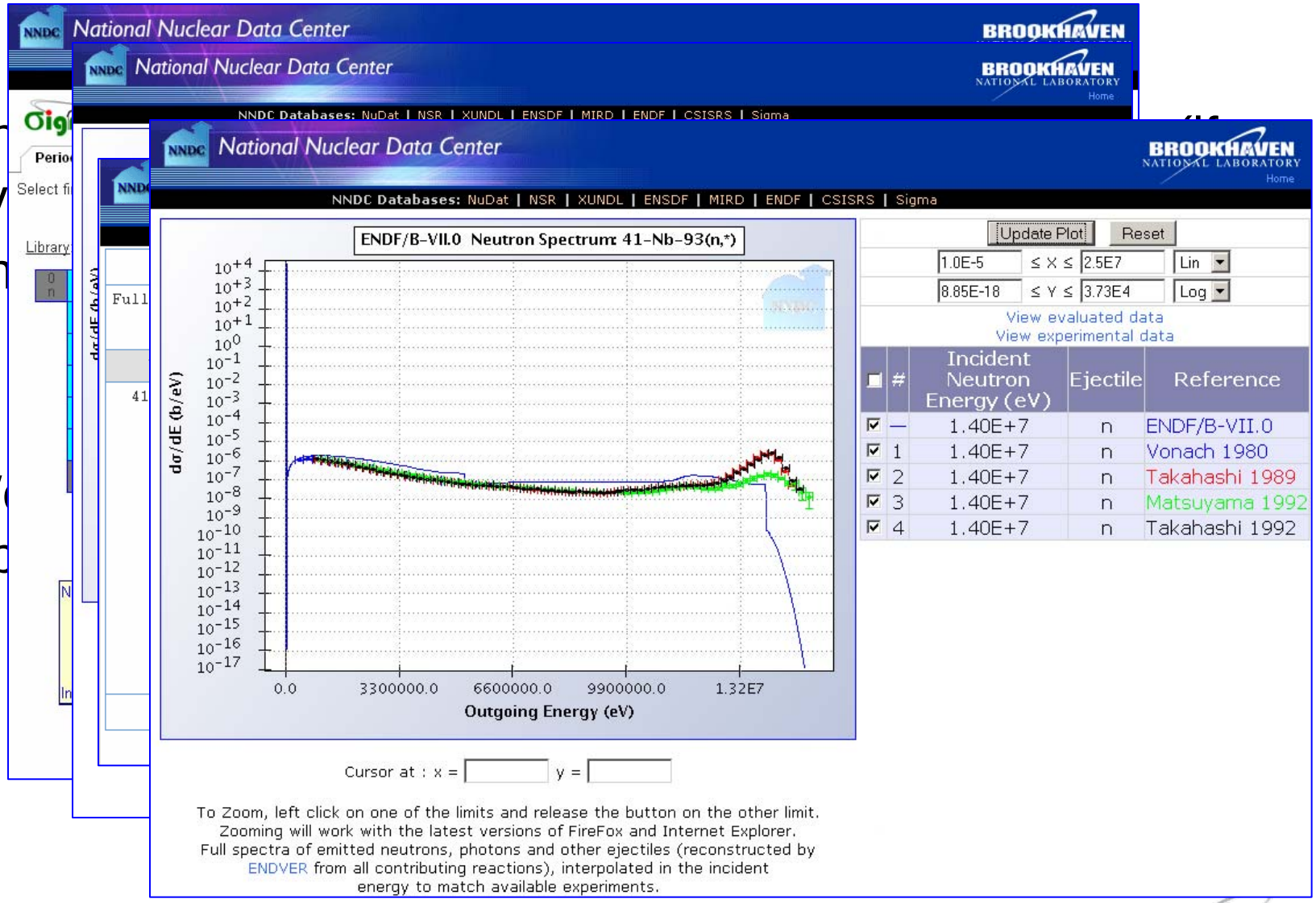
Sigma 2.0



#	Incident Neutron Energy (eV)	θ	Reference
1	1.417E7	C.M.	ENDF/B-VII.0
2	1.400E7	C.M.	Howell 1994
3	1.400E7	C.M.	Schwarz 1983
4	1.410E7	C.M.	Allred 1953
5	1.410E7	C.M.	Seagrave 1955
6	1.410E7	Lab	Shirato 1968
7	1.410E7	C.M.	Shirato 1972
8	1.410E7	Lab	Higuchi 1982
9	1.414E7	C.M.	Bruellmann 1968
10	1.420E7	C.M.	Vedrenne 1966
11	1.430E7	C.M.	Berick 1968
12	1.440E7	C.M.	Basar 1967
13	1.470E7	Lab	Bai Xi-Xiang 1980
14	1.480E7	C.M.	Messelt 1965
15	1.480E7	C.M.	Gul 1979
16	1.558E7	Lab	Moore 1973

Sigma 2.0

- Er
  av
- Th
- W
  Sp



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NNDC Databases: NuDat | NSR | XUNDL | ENSDF | MIRD | ENDF | CSISRS | Sigma

Plot selected files | Reset

Full sp
from all

Target

92-U -23

d2σ/dωdE (b/sr eV)

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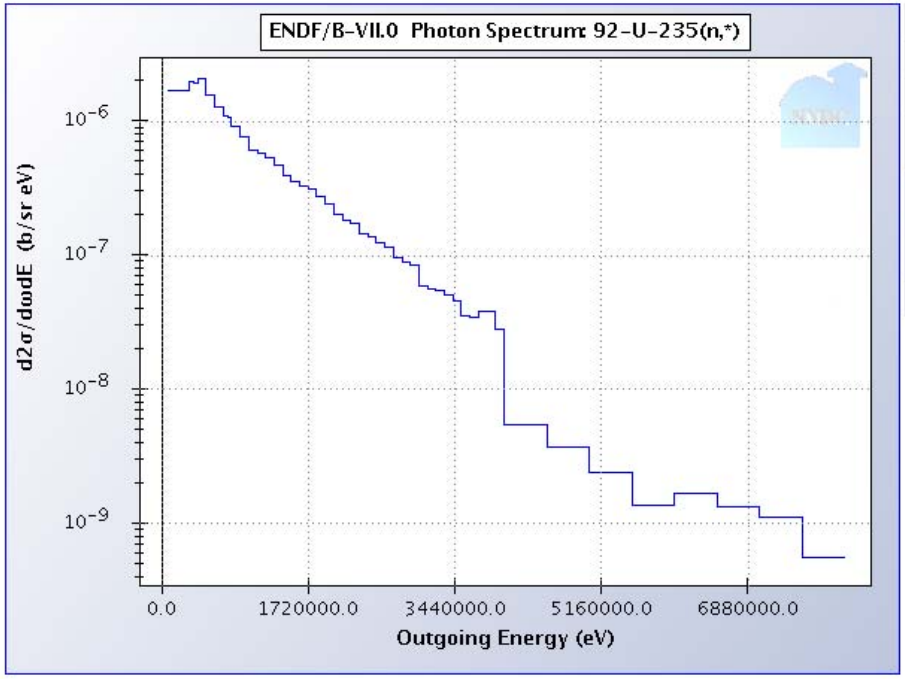

Update Plot | Reset

1.0E-5 ≤ X ≤ 2.5E7 Lin

3.47E-10 ≤ Y ≤ 3.00E-6 Log

View evaluated data

No Experimental Data Available

	#	Incident Neutron Energy (eV)	Ejectile	Angle (deg)	Reference
☑	—	1.40E+7	gamma	30	ENDF/B-VII.0

Cursor at : x = y =

To Zoom, left click on one of the limits and release the button on the other limit.
Zooming will work with the latest versions of FireFox and Internet Explorer.
Full spectra of emitted neutrons, photons and other ejectiles (reconstructed by ENDVER from all contributing reactions), interpolated in the incident energy to match available experiments.

Conclusion & Outlook

- Sigma 2.0 was released in April 2008.
- Sigma 3.0 is under development.
- Sigma article will be published in December 2008 issue of Nuclear Data Sheets
- Suggestions from the CSEWG?