

# ENDF/B-VII.1 status

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U.S. DEPARTMENT OF  
**ENERGY**

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Science

# VII.1 Marathon - final phase

## Beta4 released Sep. 9, 2011



- Neutron and new decay library
- Final version for validation (validation paper)
- Major changes
  - **Covariances:** nearly full set of (186 materials)
  - **O-16:** Capture replaced with JENDL-4
  - **Zr-90,91,92,93,94,95,96:** total x-sec modulated following VI.8, JENDL-4.0 angular distributions for elastic, and modified thermal capture for 91-Zr
  - **Gd-157:** reverted thermal capture cross section to VII.0
  - **Am-243:** Fixed MF1, MT452 for missing energy points, new (n,2n) isomeric ratio (P. Talou); new evaluation for thermal, RRR, and URR as well as the fast capture region (S. Mughabghab)
  - **Pu-242:** New thermal, RRR and URR and fast capture region.
  - **50 minor actinides:** energy dependent fission release data based on R. Vogt Energy-Dependent Fission Q Values

# The last mile...

## Beta5 released Oct. 30, 2011



- Major update of decay sublibrary
- Neutron sublibrary (97 commits)
  - correcting covariances
  - correcting format errors
- Cross section changes in neutron sublibrary
  - **F-19**: reverted to VII.0 evaluation
  - **Ag-109**: slight modification of bound res. parameters
  - **Tm-169,169,170**: New BNL/LANL evaluations
  - **Tl-203,205**: New BNL evaluations

# Number of nuclides with decay data

3817

# Number of neutron evaluations

423

# Number of neutron covariances

190

# Finish!!!

## ENDF/B-VII.1 Dec. 2x, 2011

- Changes still to be made
  - Modifications to Tm evaluations (recent Mughabghab findings)
  - Fix remaining glitches that are fixable
  - Updating description of covariances
  - Standardization of the top lines (version of the library, release date, ...)
  - Final STANEF run
- Authors of new evaluations:  
**PLEASE**...review descriptions and delete parts referring to the data removed from the evaluation.





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# ENDF library manager



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- Dave Brown took over function of the ENDF library manager on November 10, 2011.

