Nuclear Structure and Decay Data Evaluations and Related Activities of the Idaho Group

for report to the meeting of the

U. S. Nuclear Data Program
November 3 – 5, 2004
at
Brookhaven National Laboratory

I. Mass-chain Evaluations

Within the Nuclear Structure and Decay Data Evaluation Network, the Group working at the Idaho National Engineering and Environmental Laboratory has the responsibility for the twelve mass chains 87 and 153-163. The participants in this work are C. W. Reich and R. G. Helmer. Since the last network meeting in November 2003, complete evaluations for A=155 and 157 have been finished, with that for A=158 having been published.

The current status of our mass chains are as follows:

<u>Mass</u>	Date of most recent publication	
87 153 154 155	3/2002 2/1998 10/1998 4/1994	submitted in progress submitted
156 157 158 159	8/2003 6/1996 3/2004 7/2003	to be published
160 161 162 163	8/1996 8/2000 7/1999 1/2000	in progress

As part of this program, we have reviewed the mass-chain evaluations for A=70, 149 and 157.

II. Decay Data Evaluation Project, DDEP

During the last year, several evaluations have been submitted, edited, and finalized. The nuclides are ¹²⁵Sb, ¹⁴⁰Ba, ¹⁴⁰La and ¹⁵⁹Gd.