

## X.E. SAMCPR: COMPARE RESULTS

Program SAMCPR is an aide in comparing cross sections calculated by one computer code (e.g., NJOY [RM82] or REFIT [MM89] ) with those calculated by SAMMY. First, a no-Bayes SAMMY run is made using the other code's calculations as the DATA file, and including the alphanumeric command "COMPARE EXPERIMENT To theory" in the INPut file. SAMMY generates a binary file SAM53.DAT, which can then be read by program SAMCPR to produce the ODF file SAMCPR.ODF.

The contents of the various sections of the output file SAMCPR.ODF are as follows:

S1 = energy  
 S2 =  $X$  = "data," which may be a calculation from another code  
 S3 =  $S$  = "theory," which is the SAMMY calculation  
 S4 =  $X - S$   
 S5 =  $(X - S) / S$   
 S6 =  $(X - S) / S \times 10^3$   
 S7 =  $(X - S) / S \times 10^4$   
 S8 =  $(X - S) / S \times 10^5$   
 S9 =  $(X - S) / S \times 10^6$   
 S10 = S5 adjusted for small cross sections  
 S11 =  $S10 \times 10^3$   
 S12 =  $S10 \times 10^4$   
 S13 =  $S10 \times 10^5$   
 S14 =  $S10 \times 10^6$

For section 10, the quantity  $(X - S) / S$  is replaced by  $10^{-25}$  if both  $X$  and  $S$  are smaller than 0.0001. Thus the values in S10 through S14 will be sizeable only when the cross sections themselves are reasonably large.

Note that early versions of this program were called SAMCMP. However, "cmp" is a special word on Unix systems; hence, the name has been changed.