

## VI. INPUT TO SAMMY

Input to SAMMY consists of three or more files, which may be user generated or (sometimes) produced by earlier SAMMY runs. These files are summarized in Table VI.1 and described in detail in the sections listed in the table. Test case numbers (see Section XII.B) are given for those files that are infrequently used.

**Table VI.1. SAMMY input files**

Description	Contents	Section(s) / table(s) containing details	Test case using this file
Interactive input	Interactive input to SAMMY (file names, energy ranges)	Section VI.E	
INPut file	Details about the interaction being studied, including SAMMY control information	Section VI.A Tables VI A.1 and VI A.2	
PARAmeter file	Initial values for resonance and other parameters, flags defining which are to be varied, uncertainty information	Section VI.B Table VI B.2	
DATa file	Experimental data, including energy, cross section (or transmission, for example), and uncertainty	Section VI.C.1 Table VI C1.1	
COVariance file	Covariance matrix for the parameters as output by an earlier SAMMY run	Section VII.B	
DCV (Data CoVariance)	Covariance information for the data	Section VI.C.2	tr007, tr118
IDC (Implicit Data Covariance) for normalization and backgrounds only	Information on data-reduction parameters to be used to generate implicit data covariance matrix	Section VI.C.3.c	tr070
IDC (User supplied)	Information on data-reduction parameters to be used to generate implicit data covariance matrix	Section VI.C.3.b	tr118 tr140 (*.dcv)
NTG file	Integral data file	Section VI.D	tr069, tr077

**Table VI.1 (continued)**

Description	Contents	Section(s) / table(s) containing details	Test case using this file
AVG file or BON file	Information needed by SAMMY in order to produce energy-averaged or Bondarenko-averaged cross sections	Section VI.F.1	tr014, tr083, tr084, tr085
NDF file	Information needed by SAMMY in order to generate an output file in ENDF-6 File 2 format	Section VI.F.2	tr023
ENDF resonance parameter file	File 2 from ENDF, to be used instead of the usual SAMMY PARAMeter file (and for part of the SAMMY INPut file)	Section VI.F.3	tr049, tr050, tr086, tr091, tr102, tr129
ENDF File 3	Smooth cross sections to be added to the cross section calculated from resonance parameters, for use in calculating the stellar (Maxwellian) averages	Section V.D	tr051
MXW file	Temperatures at which the stellar (Maxwellian) averages are to be evaluated	Sections V.D and VI.F.4	tr042, tr049, tr051
SSM file	Edge-effects corrections to single-scattering correction for capture cross sections (file is generated by a previous SAMMY run)	Section III.D	tr039 and many others
URR PAR file	Input information for unresolved resonance region	Section VIII	tr073, tr088
YWY file	W and Y matrices from a single data set, when analyzing several data sets simultaneously, e.g., for creating a retroactive parameter covariance matrix (files are generated by previous SAMMY runs)	Sections IV.E.1 and IV.E.2	tr082, tr089, tr131, tr149