

Table VI A1.2 (continued)

Category	D	Statements	Notes	#
Special options		RELEVANT PARAMETERS are chosen via uncertainty ratio	Solve Bayes' equations one time. Then, based on the ratio of u -parameter uncertainties, choose which of the R-matrix parameters are relevant. Create file SAMMY.REL, which contains the original parameter values with only the relevant parameters flagged to be varied. See test case tr166 for examples.	327
		CROSS SECTION COVARIance matrix is wanted	Calculate the covariance matrix for the theoretical cross sections.	328
		INITIAL UNCERTAINTY multiplier =	All prior parameter uncertainties (square roots of diagonal elements of parameter covariance matrix) are to be multiplied by the specified number. See Section IV.E.6 for further discussion, and test case tr019 for examples.	329
		FINAL UNCERTAINTY Multiplier =	All output parameter uncertainties (square roots of diagonal elements of parameter covariance matrix) are to be multiplied by the specified number. See Section IV.E.6 for further discussion, and test case tr019 for examples.	330
		E-DEPENDENT INITIAL Uncertainty multiplier, or E-DEPENDENT UNCERTAInty multiplier	All prior parameter uncertainties are to be multiplied by an energy- and spin-group-dependent multiplier. Details are give in Section IV.E.6, and test case tr019 contains examples.	6 7
		SUMMED STRENGTH FUNCTION is wanted	Evaluate and print the summed strength function and corresponding covariance matrix. See Section V.F for details.	331

Table VI A1.2 (continued)

Category	D	Statements	Notes	#
Special options (cont.)		GENERATE PARTIAL DERivatives only	SAMMY will assume all resonance parameters, and only resonance parameters, are to be varied; that Bayes' equations are not to be solved; and that the partial derivatives of the theoretical values with respect to those parameters are to be written into file SAMMY.PDS .	332
		GENERATE SPIN GROUP cross sections	Generate the ODF (Plot) file containing the energy (from auxiliary grid) in section 1, the unbroadened cross section in section 2, the spin-group-1 contribution to the unbroadened cross section in section 3, spin-group-2 contribution in section 4, etc.	333
		REFORMULATE DATA FOR implicit data covariances	See Sections IV.D.3 and VI.C.3.	334
		COMPARE EXPERIMENT To theory	See Section X.E; results are reported in binary file SAM53.DAT.	335
		GENERATE Y AND W MATrices, or YW	See Section IV for a description of the M+W form of Bayes' Equations. See test case tr089 for examples of the use of this option.	336
		READ Y AND W MATRICES, or WY		337
				338
		STOP abc <i>n</i> (Note that there are two spaces before “ <i>n</i> ” in this command; <i>n</i> is replaced with an integer value.)	Cease execution prior to the <i>n</i> th occurrence of segment abc. Used only for debug (Section XI.B) and for preparation for Monte Carlo calculations (Section X.M).	339
		WRITE CALCULATED CROss sections into ascii file	Write energies and theoretical values into ascii file SAMTHE.DAT in 2F20.10 format.	340
				341

Table VI A1.2 (continued)

Category	D	Statements	Notes	#
Special options (cont.)		PRINT MULTIPLE SCATTERING corrections	Create a table of E , Y_0 , Y_1 , Y_2 , and Y (energy plus components of the corrected yield) in file SAM012.DAT.	275
		UNIFORM ENERGY GRID	Instead of using the energies from the experimental data set to define the energy grid, SAMMY will create a grid of 1001 points uniformly space in energy. This is for testing purposes only, so this grid must be used only for “no Bayes” runs. See Section V.E for details.	342
		UNIFORM VELOCITY GRID	SAMMY will create a grid of 1001 points uniformly spaced in velocity (square root of energy). To be used for testing purposes only. See Section V.E.	343
		UNIFORM TIME GRID	SAMMY will create a grid of 1001 points uniformly spaced in time (1 over the square root of energy). To be used for testing purposes only. See Section V.E for details.	344
		CREATE PUBLISHABLE List of parameters, or PUBLISH	The file SAMMY.PUB will be created, which contains resonance parameters and uncertainties in columns, with each value separated by tabs. This file can be ported to spreadsheet programs to be formatted for publication purposes. See Section VII.F for details.	345 346
		DO NOT TEST FOR EIGENvalues	Do not test whether the parameter covariance matrix is positive-definite (i.e., whether all eigenvalues are greater than zero).	347