GROUPIE_TAB.pdf

Line	Column **(format)**	**Explanation of parameters**
1	1-11 **(I11)**	**Selection criteria** (0=MAT, 1=ZA)
	12-22 **(I11)**	**Number of groups:** = >0 - Arbitrary group boundaries are read from task input file (maximum is 1000 groups). = from 0 to -14 – one of 15 built-in options of group structure, e.g., for SAND-II 640-group structure = -5 (all list see GROUPIE.pdf)
	23-33 **(I11)**	**Multi-band selector:** = 0 – No multi-band calculations. = from 1 to 5 – Different versions of multi-band calculations, minimum number of bands will be output for each isotope independently (see GROUPIE.doc). = from -1 to -5 – Different versions of multi-band calculations, the same number of bands will be output for all isotopes (seeGROUPIE. pdf).
	34-44 **(I11)**	**Number of points used to describe energy dependent weighting spectrum** = -2 – Maxwellian - up to 0.1 eV, 1/E - 0.1 eV to 67 keV, fission - above 67 keV. = -1 – 1/E = 0 or 1 – energy independent (so called flat groupie weighting spectrum) > 0 – reads many points from task input file to describe weighting spectrum.
	45-55 **(D11.4)**	**Multi-band convergence criteria** (see GROUPIE.pdf).
	56-66 **(I11)**	**Sigma-0 definition selector:** < 0 – 21 values of Sigma-0 are read input and interpreted as fixed values = same as = 1 description below Input values must all be: 1) greater than 0 2) in descending value order. = 0 – Sigma-0 will be defined as a multiple of the unshielded total cross section in each group (values of 1/1024 to 1024 in steps of a factor of 2 will be used as the multiplier). = 1 – Sigma-0 will be defined as the same number of barns in each group (values 40000 to 0.4 barns will be used. Within groupie each decade values of 10, 7, 4, 2, 1 barns will be used).
	67-70 **(I4)**	**High energy extension** = definition of cross section above highest tabulated energy. = 0 = cross section = 0 (standard ENDF/B) = 1 = cross section = constant (equal to value at highest tabulated energy).
2-4	1-66 **(6D11.4)**	If Sigma-0 definition selector < 0, the next 4 lines of input are the 22 values of Sigma-0, 6 per line.
2	1-60 **(A60)**	**ENDF/B input** data filename (standard option ENDFB.IN)
3	1-60 **(A60)**	**ENDF/B output** data filename (standard option ENDFB.OUT)
4	1-11 **(I11)**	**Self-shielded cross section listing:** = 0 – No output = 1 – Cross sections (SHIELD.LST) = 2 – Resonance integrals
	12-22	**Multi-band parameter listing:**

	(I11)	= 0 – No output = 1 – Output (MULTBAND.LST).	
	23-33 **(I11)**	**Multi-band parameters computer readable:** = 0 – No output = 1 – Output (MULTBAND.TAB).	
	34-44 **(I11)**	**Unshielded cross sections in ENDF/B format:** = 1 – Histogram format (interpolation law 1). = 2 – Linear-linear (interpolation law 2).	
	45-55 **(I11)**	**Unshielded cross sections listing:** = 1 – Cross sections (UNSHIELD.LST). = 2 – Resonance integrals (UNSHIELD.LST).	
	56-66 **(D11.4)**	**If the standard built-in spectra is used, input line 1, columns 34-44 = 2, this field can be used to optionally change temperature of the Maxwellian.** = 0 – Use default 0.0253 eV, room temperature. > 0 – Use this as the temperature restriction - temperature cannot exceed 1000 eV.	
5	1-80 **(18A4)**	**Library identification.** Any text that the user wishes to identify the multi-band parameters. This library identification is written into the computer readable multi-band data file.	
6-N	1 - 6 **(I6)**	Lower MAT or ZA limit	Up to 100 ranges may be specified, only one range per line. If the upper MAT limit of any request is less than the low limit it will be set equal to the lower limit. If the upper MAT limit is still zero it will be set equal to 9999. If the upper MF or MT limit is zero it will be set to 99 or 999 respectively. The list of ranges is terminated by a BLANK line.
	7 - 8 **(I2)**	Lower MF	
	9-11 **(I3)**	Lower MT	
	12-17 **(I6)**	Upper MAT or ZA limit	
	18-19 **(I2)**	Upper MF	
	20-22 **(I3)**	Upper MT	
VARY	1-66 **(6D11.4)**	**Energy group boundaries.** Only required if the number of groups indicated on the first input card is positive. All energies must be in ascending energy in ev. The present limits are 1 to 1000 groups. For N groups N+1 boundaries will be read from the task input file.	
VARY	1-66 **(6D11.4)**	**Energy dependent weighting spectrum.** Only required if the number of points indicated on first line is > 1. Data is given in (energy, weight) pairs, up to 3 pairs per line, using any number of lines required (no limit to number of points). Energies must be in ascending order in eV. The spectrum values must be >0.	