

### III.E.5. Detector Efficiency

For measurements of capture or fission yields, the detectors may have different efficiencies for different  $l$ -values. SAMMY is equipped with a spin-group-dependent detector efficiency (multiplicative factor), which can be used to model this effect. The user may specify as many different efficiencies as needed, and delineate the spin groups to which those efficiencies apply. (See Table VI B.2, card set 15, for input details.) SAMMY will multiply the calculated capture or fission partial cross sections by the efficiencies prior to applying self-shielding and multiple-scattering corrections; these efficiencies can also be used with self-indication data. Note that the total and elastic cross sections (used in the calculation of self-shielding and multiple-scattering effects) are *not* multiplied by the efficiencies.

Test case tr078 contains examples of the use of spin-group-dependent detector efficiencies.