
JPI and MULT assignments in ENSDF

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Application of Rules for spin-parity assignments

- Seems a double-standard: one for low-spin states and another for high-spin states. In the latter, more reliance on what the authors assign, rather than follow strong rules in NDS.
- For low-spin levels, rules applied quite well. Critical about conversion coefficients, angular correlation, polarization data, etc.
- Their usage for high-spin levels in ENSDF seems inconsistent, even though in the past few years, additional rules for such studies have been added.
- For MULT assignments, we have some separate guidelines written, implicit in rules for spin-parity assignments. Perhaps there should be a separate set of guidelines.

Examples:

- E2: from DCO=1.39(51) (DCO by itself is parity-insensitive)
- E1: from DCO=0.88(33)
- (E1): from DCO=0.82(60)
- E2: from M\$ DCO=1.10 (20)
- E2: from M\$ A2=0.20 (5)
- MULT given even when no supporting data exist, implied simply from $\Delta(\text{JPI})$ based on some band structure

- MULT assignments from conversion data: experimental conversion data either quoted or not.
- DCO; A2, A4; POL values not given consistently.

- DCO values given in dataset but no MULT assigned.
- JPI's given without parentheses even when not supported by strong arguments. Based perhaps only on a cascade of transitions.

Are the rules for high-spin data still inadequate ?

- Evaluators should suggest either additional rules and guidelines or modifications in the existing rules so that some consistency can be achieved.

