Status of XREF in ENSDF and the Nuclear Data Sheets

Presentation for the USNDP 2003 Meeting
November 6-7, 2003

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Status of XREF in ENSDF and the Nuclear Data Sheets — 2

- "Others:" implemented in publication code and ENSDAT

Cross Reference (XREF) Flags

I ^{45}Sc(n,n'),(n,n'γ)
J ^{45}Sc(p,p'),(d,d')
K ^{45}Sc(p,p'γ)
L Coulomb Excitation
M ^{46}Ti(d,^{3}He)
N ^{48}Ti(pol p,α) E=79.2 MeV
O Others:
^{nat}Ti(μ^{-},xnγ)
^{45}Ca β^{-} Decay
^{45}Sc IT Decay (318 ms)
^{44}Ca(^{16}O,^{15}N)
^{45}Sc(e^{+},Xγ)
^{47}Ti(d,α)
^{48}Ti(p,α) E=10,12 MeV
^{48}Ti(p,α) E=40.35 MeV

Status of XREF in ENSDF and the Nuclear Data Sheets — 3

- ENSDF format limitations
  - About 210 ACSII characters out of 256 possible
    - 32 control characters
    - 7 delimiters (" ", "=", ">", "<", "(", ")", "$")
    - Possible problems with other characters *(e.g.*, "*", ",", *etc.*)
  - Possible program assumptions such as only A through Z and a through z?

Status of XREF in ENSDF and the Nuclear Data Sheets — 4

- Publication and ENSDAT limitations
  - Default of 15 characters. Maximum of 26 (A – Z; a – z used to indicate multiple assignments of source levels).
    - XREF control record may be used to set the number of characters
  - Table line width of 108 characters
    - Default of 15 XREF characters: ≈14% of line
    - Maximum of 26 XREF characters: ≈24% of line
  - Possible approach
    - Give the X records corresponding to the most important datasets first (≤25) in the order the datasets will appear in the publication.
    - Give the remaining X records after this in the order in which the datasets will appear in the publication.
    - Ask NDS production to change the default for this Adopted dataset.