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# ENDF Formats Proposals

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# NLIB

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- Refer the description of NLIB in Section 1 to a new Appendix I



# Light particle (projectile) masses

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## Table 2 of Appendix H

- Tritium mass is wrong
- Minor changes to He-3 and He-4 (8,9 digit)
- Make all references to Audi-Wapstra 2003

## Comments:

Tritium mass was taken from Audi Wapstra 95 without the electron and binding energy correction



# Revised mass values

	ENDF-102	A-W_03
neutron	1.008664916	1.008664916
proton	1.007276467	1.007276467
deuteron	2.013553213	2.013553213
triton	3.016049268	3.015500713
3-He	3.014932235	3.014932244
alpha	4.001506175	4.001506179

Ionisation energy of hydrogen: 0.000000015 amu/atom

Ionisation energy of helium : 0.000000085 amu/atom



# Reference to masses

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- Referencing all to Audi-Wapstra simplifies description and ensures consistency
- Value for He-4 fully consistent with most recent Van Dyke measurement (2004)
- Values practically the same as NIST-2002



# E-dependent scattering radius

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- NRO=1 now coded in PrePro in URR
- Status of NJOY ?
- Is reference to “not allowed in ENDF/B VI” necessary?



# Ref. To interpolation flags

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- On page 8.4 replace “see Appendix E” by “see Section 0.6.2”



# $^{252}\text{Cf}$ spontaneous fission spectrum

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- ENDF/B-VI uses MF5/MT18 and MF35 representation in decay library
  - Conflicting MF/MT with general purpose file
  - Covariances in MF35 not processable
- IRDF-2002 uses MF3/MT261 and MF33 representation
- UK decay library uses MF8

Recommendation to evaluators?

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