

Update of EXFOR/CINDA Dictionary Manual (Dict.227)

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The EXFOR/CINDA Dictionary Manual defines the half-life and half-life unit field of Dictionary 227 as follows:

Line	Contents	Format	Archive	Trans	CHEX
...
	Half-life	E11	65-75	39-49	
	Half-life unit	A3	76-78	50-52	x
...

Dr. Abhijit Bhattacharyya (BARC) informed me that there are numbers followed by units like MEV , KEV in the half-life field. The number followed by such a unit actually gives the **width** of a very short-lived nuclide, and the table of the manual must be revised:

Proposed change in the table of the dictionary manual (underlined part):

Line	Contents	Format	Archive	Trans	CHEX
...
	Half-life <u>or width</u>	E11	65-75	39-49	
	Half-life <u>or width</u> unit	A3	76-78	50-52	x
	Isotopic abundance	E11	79-89	54-64	
...

Occasionally I found these fields are not always properly translated by the program NUC_DICT from the Nuclear Wallet Cards for stable nuclides. For examples, the three records of the Nuclear Wallet Cards for $^{32,33,34}\text{S}$

```

32  16 S  Q  0+    0.0000  0.000  STABLE      94.99% 26
33  16 S  Q  3/2+  0.0000  0.000  STABLE      0.75%  2
34  16 S  Q  0+    0.0000  0.000  STABLE      4.25% 24

```

are translated to the TRANS dictionary as follows:

```

-----+-----1-----+-----2-----+-----3-----+-----4-----+-----5-----+-----
16-S-32      32S      160320  +0.          94.99
16-S-33      33S      160330  +1.5  STABLE.    0.7  0.75
16-S-34      34S      160340  +0.          4.25

```

, where a character set not explained in the manual (STABLE) and the first three characters of the isotopic abundance (0.7) are unexpectedly seen in in the half-life and half-life unit field, respectively, for ^{33}S (We do not see this problem for ^{32}S and ^{34}S).