## F wat for Nuclear Wallet Cards Fi

Column #	<u> </u>
1	'F' indicates <sup>235</sup> U fission product
2-4	Α
5	'M' indicates isomeric state
7-9	Z
11-12	Element
17-26	$J\pi$
31-34	decay mode
35-41	% Branch
43-49	excitation energy (MeV)
50-56	Q-value (MeV)
64-80	T1/2
82-96	Abundance
98-105	Atomic mass (MeV)
106-113	Uncertain in mass (MeV)
115	'S' if mass from systematics
118-123	Date (ignore)
125-132	T1/2 in seconds

The following abbreviations have been used for the decay modes:

B	β
ВВ	2β
EC	ε or β+ or ε+β+
IT	Isomeric transítion
A,2A	$\alpha$ , $2\alpha$ , etc.
SF	Spontaneous fission
BN,BP,BA, etc.	delayed neutron, proton, alpha, etc. following $\beta$ -
EP,EA,E2A, etc.	delayed proton, alpha, 2 alpha, etc. following $\varepsilon/\beta+$
?	Unknown
N,P,P2A	$n,p,$ $p2\alpha$ decays

There is a separate record for each decay mode. The file is ordered by  ${\sf Z}$ ,  ${\sf A}$  and then by excitation energy.

<sup>\*(</sup>Any retrievals from this file should contain necessary acknowledgement to the Nuclear Wallet Cards, J.K. Tuli, National Nuclear Data Center, Brookhaven National Laboratory.)

## SYMBOLS

Before A:

M Metastable

A,B level energy not known

S after mass:

from systematics

Decay modes:

EC Electron capture ( $\epsilon$ ) and/or  $\beta^+$ 

β- β-decay

IT Isomeric Transition

BN  $(\beta-n)$  delayed n emission following

β-

EP  $\epsilon p$ , delayed p emission following  $\epsilon$ 

(electron capture)

EA  $\epsilon \alpha$ , delayed  $\alpha$  emission following  $\epsilon$ 

A α decay

## Half-life

LT,LE <, <

GT,GE >, ≥

AP ≈

Units S(Sec), M(min)

D(day), y(year)

MS(ms), NS(ns), PS(ps)