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DATE: November 15, 1989

TO: Distribution

FROM: V. McLane

SUBJECT: Fission Product Yield Computation Format

Attached is the fission product yield computation format, proposed as a result of discussion at the Consultants' Meeting on Compilation and Evaluation of Fission Yield Nuclear Data held in Vienna, 27-29 September, 1989.

Please send any comments as soon as possible. We would like to have a final draft to send to the fission yield evaluators by the end of the year.

Charles L. Dunford

ACTION
NOV 20 1989
J J Schmidt
SIGNATURE OF ACTION
Lammer
as stated

Distribution:

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FISSION PRODUCT YIELD COMPUTATION FORMAT

Variable	Columns	FORTRAN Format
Data		
Target isotope Z,A,isomer	1 – 7	I3,I3,I1
Incident projectile	8	A1
Yield type/modifier	9 – 11	A2,A1
Energy (eV)	12 – 19	x.xxx±nn
Spectrum code	20	A1
Product isotope Z,A,isomer	21 – 27	I3,I3,I1 Z=0 for mass yields; A=0 for element yields
Decay half-life (min)	28 – 35	x.xxx±nn
Spin/parity†	36 – 38	±x.
Yield*	39 – 47	x.xxxx±nn
+Yield error*	48 – 56	x.xxxx±nn
−Yield error*	57 – 65	x.xxxx±nn
Error code	66	A1
Normalization		
Target isotope Z,A,isomer	67 – 73	I3,I3,I1
Incident projectile	74	A1
Yield type	75 – 76	A2
Energy (eV)	77 – 84	x.xxx±nn
Spectrum code	85	A1
Product isotope Z,A,isomer	86 – 92	I3,I3,I1 Z=0 for mass yields; A=0 for element yields
Decay half-life (min)	93 –100	x.xxx±nn
Yield*	101–109	x.xxxx±nn
Yield error*	110 – 118	A2
Method code	119	A1
Reference		
Institute	120 – 122	A3 (as in CINDA)
Date	123 – 124	A2
Accession #	125 – 129	A5
Subaccession #	130 – 132	I3

*see yield type for content and units
†not currently implemented in EXFOR

CODING SPECIFICATIONS

Yield type	CU	Cumulative yield via direct formation & radioactive decay
	IN	Independent yield direct formation only
	CH	Total chain yield
	PR	Primary fragment yield
	SE	Secondary fragment yield
	CG	Total elemental charge
Yield type modifier	blank	Absolute yield given
	A	Relative value given
	N	Ratio given
	R	R-value given

For **absolute yield**:

Units for yield and error: %/fission

Normalization field: yield value for normalization reaction

For **relative yield**:

Units for yield and error: arbitrary units

Normalization field: blank

For **yield ratio**:

Units for yield and error: nondimensional

Yield field: target and spectrum from numerator of ratio

Normalization field: target and spectrum from denominator of ratio; value is blank

For **R-value**:

Units for yield and error: nondimensional

Yield field: target and spectrum from numerator of numerator

Normalization field: target and spectrum from denominator of denominator; value is blank

For **fractional yields**:

Yields are enetered as cumulative or independent ratios; chain

Normalization field: chain yield

Incident spectrum	E	Epi-cadmium spectrum
	F	Fission spectrum average
	H	Fast reactor spectrum
	M	Thermal Maxwellian average
	P	Thermal reactor spectrum
	S	Spontaneous fission
Method	A	Mass spectrometry
	G	Gamma-ray spectrometry
	H	Hot atom
	J	Helium jet
	R	Radiochemical