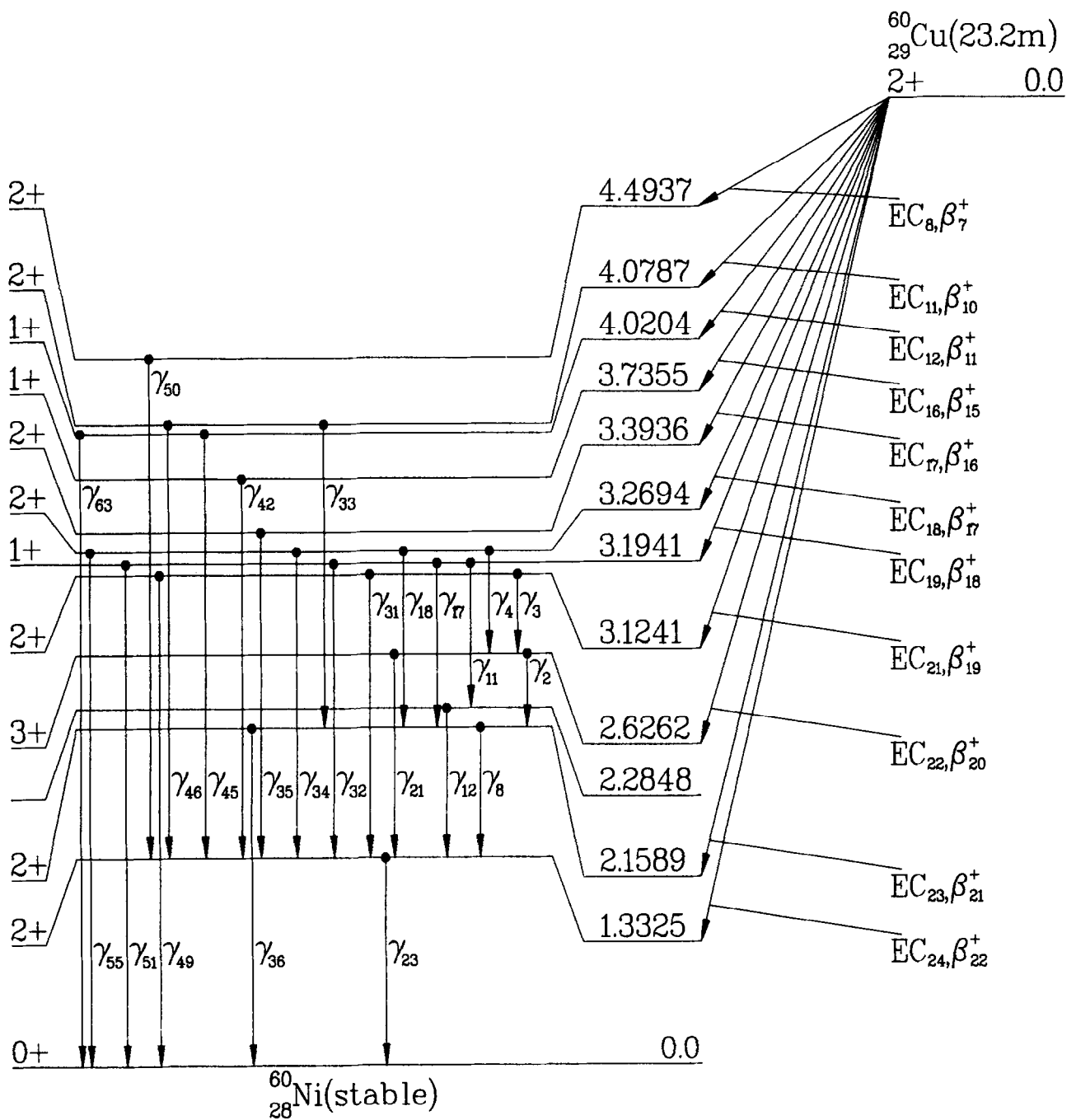


COPPER



29-COPPER-60

HALFLIFE = 23.2 MINUTES

07-MAR-78

DECAY MODE(S): EC, β^-

RADIATION	y(i) (Bq-s) ⁻¹	E(i) (MeV)	y(i)×E(i)
β^- 10	1.16E-02	4.408E-01*	5.10E-03
β^- 11	9.50E-03	4.665E-01*	4.43E-03
β^- 13	2.37E-03	5.085E-01*	1.21E-03
β^- 15	7.32E-03	5.935E-01*	4.34E-03
β^- 16	8.51E-03	7.486E-01*	6.37E-03
β^- 17	4.46E-02	8.056E-01*	3.59E-02
β^- 18	1.14E-01	8.403E-01*	9.56E-02
β^- 19	4.84E-01	8.727E-01*	4.22E-01
β^- 20	2.77E-02	1.105E-00*	3.06E-02
β^- 21	1.49E-01	1.325E-00*	1.98E-01
β^- 22	5.14E-02	1.720E-00*	8.85E-02
γ^\pm	1.83E-00	5.110E-01	9.36E-01
γ 2	3.52E-02	4.673E-01	1.64E-02
γ 3	1.67E-02	4.979E-01	8.32E-03
γ 4	9.68E-03	6.432E-01	6.23E-03
γ 8	2.17E-01	8.264E-01	1.80E-01
γ 11	2.02E-02	9.092E-01	1.84E-02
γ 12	2.73E-02	9.524E-01	2.60E-02
γ 17	3.70E-02	1.035E-00	3.83E-02
γ 18	1.06E-02	1.110E-00	1.17E-02
γ 21	1.85E-02	1.294E-00	2.39E-02
γ 23	8.80E-01	1.332E-00	1.17E-00
γ 31	4.54E-01	1.792E-00	8.14E-01
γ 32	4.75E-02	1.862E-00	8.85E-02
γ 33	6.95E-03	1.920E-00	1.33E-02
γ 34	2.20E-02	1.937E-00	4.26E-02
γ 35	7.92E-03	2.061E-00	1.63E-02
γ 36	3.34E-02	2.159E-00	7.22E-02
γ 42	7.74E-03	2.403E-00	1.86E-02
γ 45	4.40E-03	2.688E-00	1.18E-02
γ 46	1.06E-02	2.746E-00	2.90E-02
γ 49	4.75E-02	3.124E-00	1.48E-01
γ 50	5.81E-03	3.161E-00	1.84E-02
γ 51	2.02E-02	3.194E-00	6.46E-02
γ 55	7.74E-03	3.269E-00	2.53E-02
γ 63	7.66E-03	4.020E-00	3.08E-02

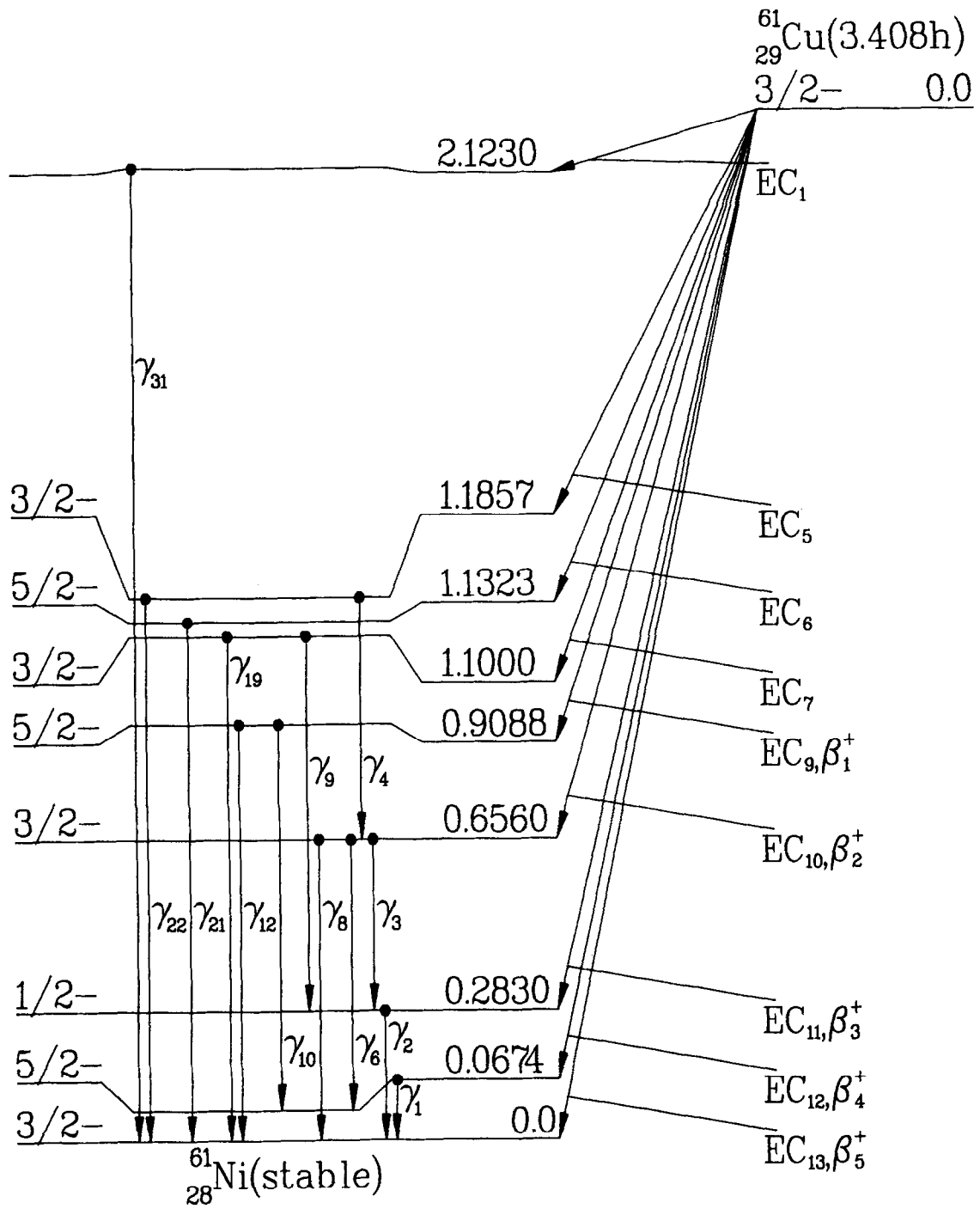
LISTED X, γ AND γ^\pm RADIATIONS	3.83E-00
OMITTED X, γ AND γ^\pm RADIATIONS**	6.64E-02
LISTED β , ce AND Auger RADIATIONS	8.92E-01
OMITTED β , ce AND Auger RADIATIONS**	2.99E-03
LISTED RADIATIONS	4.72E-00
OMITTED RADIATIONS**	6.94E-02

* AVERAGE ENERGY (MeV)

** EACH OMITTED TRANSITION CONTRIBUTES

<0.100% TO $\sum y(i) \times E(i)$ IN ITS CATEGORY.

NICKEL-60 DAUGHTER IS STABLE.

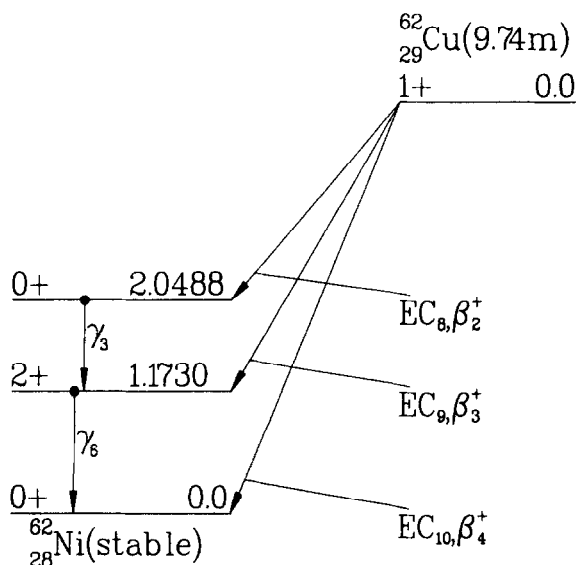


29-COPPER-61

HALFLIFE = 3.408 HOURS
 DECAY MODE(S): EC, β'

07-MAR-78

RADIATION	y(i) (Bq-s) ⁻¹	E(i) (MeV)	y(i)×E(i)				
β' 2	2.61E-02	2.417E-01*	6.30E-03	γ 22	3.97E-02	1.186E 00	4.70E-02
β' 3	5.91E-02	4.022E-01*	2.38E-02	γ 31	4.35E-04	2.123E 00	9.24E-04
β' 4	2.91E-02	4.972E-01*	1.45E-02	Auger-KLL	1.61E-01	6.489E-03*	1.04E-03
β' 5	5.01E-01	5.272E-01*	2.64E-01	Auger-LMM	4.94E-01	8.103E-04*	4.00E-04
γ_{\pm}	1.23E 00	5.110E-01	6.29E-01				
γ 1	5.12E-02	6.737E-02	3.45E-03	LISTED X, γ AND γ_{\pm} RADIATIONS			8.20E-01
ce-K, γ 1	6.31E-03	5.904E-02	3.72E-04	OMITTED X, γ AND γ_{\pm} RADIATIONS**			8.10E-03
γ 2	1.28E-01	2.830E-01	3.62E-02	LISTED β , ce AND Auger RADIATIONS			3.11E-01
γ 3	2.02E-02	3.729E-01	7.54E-03	OMITTED β , ce AND Auger RADIATIONS**			6.77E-04
γ 4	4.10E-03	5.294E-01	2.17E-03	LISTED RADIATIONS			1.13E 00
γ 6	1.28E-02	5.886E-01	7.53E-03	OMITTED RADIATIONS**			8.78E-03
γ 8	1.01E-01	6.560E-01	6.63E-02				
γ 9	3.84E-03	8.168E-01	3.14E-03				
γ 10	2.43E-03	8.414E-01	2.05E-03	* AVERAGE ENERGY (MeV)			
γ 12	1.13E-02	9.088E-01	1.02E-02	** EACH OMITTED TRANSITION CONTRIBUTES			
γ 19	3.07E-03	1.100E 00	3.38E-03	<0.100%, TO $\Sigma y(i) \times E(i)$ IN ITS CATEGORY.			
γ 21	9.22E-04	1.132E 00	1.04E-03	NICKEL-61 DAUGHTER IS STABLE.			

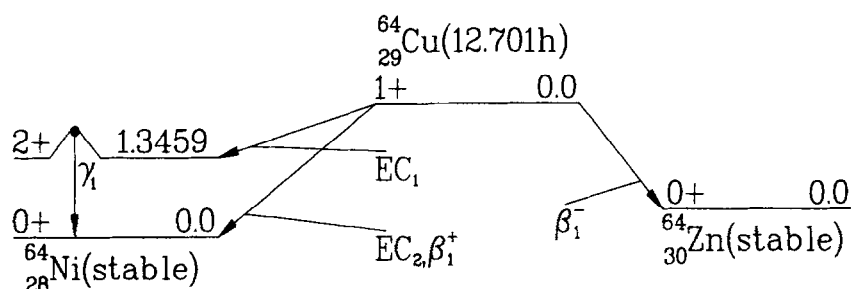


29-COPPER-62

HALFLIFE = 9.74 MINUTES
 DECAY MODE(S): EC, β'

26-JAN-79

RADIATION	y(i) (Bq-s) ⁻¹	E(i) (MeV)	y(i)×E(i)		
β' 4	9.76E-01	1.315E 00*	1.28E 00	OMITTED β , ce AND Auger RADIATIONS**	1.48E-03
γ_{\pm}	1.96E 00	5.110E-01	1.00E 00	LISTED RADIATIONS	2.29E 00
γ 3	1.47E-03	8.757E-01	1.29E-03	OMITTED RADIATIONS**	3.40E-03
γ 6	3.35E-03	1.173E 00	3.93E-03		
LISTED X, γ AND γ_{\pm} RADIATIONS			1.00E 00	* AVERAGE ENERGY (MeV)	
OMITTED X, γ AND γ_{\pm} RADIATIONS**			1.92E-03	** EACH OMITTED TRANSITION CONTRIBUTES	
LISTED β , ce AND Auger RADIATIONS			1.28E 00	<0.100%, TO $\Sigma y(i) \times E(i)$ IN ITS CATEGORY.	
				NICKEL-62 DAUGHTER IS STABLE.	



29-COPPER-64

HALFLIFE = 12.701 HOURS
DECAY MODE(S): β , EC, β⁺

14-JUN-77

RADIATION	y(i) (Bq-s) ⁻¹	E(i) (MeV)	y(i)×E(i)
β 1	3.72E-01	1.902E-01*	7.08E-02
β ⁺ 1	1.79E-01	2.781E-01*	4.97E-02
γ±	3.58E-01	5.110E-01	1.83E-01
γ 1	4.90E-03	1.346E 00	6.59E-03
Kα ₁ X-ray	9.78E-02	7.478E-03	7.31E-04
Kα ₂ X-ray	4.97E-02	7.461E-03	3.71E-04
Auger-KLL	1.84E-01	6.489E-03*	1.20E-03
Auger-KLX	4.83E-02	7.356E-03*	3.55E-04
Auger-LMM	5.66E-01	8.103E-04*	4.59E-04

LISTED X, γ AND γ± RADIATIONS	1.90E-01
OMITTED X, γ AND γ± RADIATIONS**	1.68E-04
LISTED β, ce AND Auger RADIATIONS	1.23E-01
OMITTED β, ce AND Auger RADIATIONS**	1.06E-04
LISTED RADIATIONS	3.13E-01
OMITTED RADIATIONS**	2.74E-04

* AVERAGE ENERGY (MeV)

** EACH OMITTED TRANSITION CONTRIBUTES
<0.100% TO Σy(i)×E(i) IN ITS CATEGORY.

ZINC-64 DAUGHTER, YIELD 3.72E-01,
IS STABLE.

NICKEL-64 DAUGHTER, YIELD 6.28E-01,
IS STABLE.

29 - COPPER - 66

HALFLIFE = 5.1 MINUTES

20-DEC-77

DECAY MODE(S): β^-

RADIATION	y(i) (Bq-s) ⁻¹	E(i) (MeV)	y(i)×E(i)
β^- 3	7.99E-02	6.249E-01*	4.99E-02
β^- 4	9.18E-01	1.109E 00*	1.02E 00
γ 1	1.84E-03	8.334E-01	1.53E-03
γ 2	8.00E-02	1.039E 00	8.31E-02

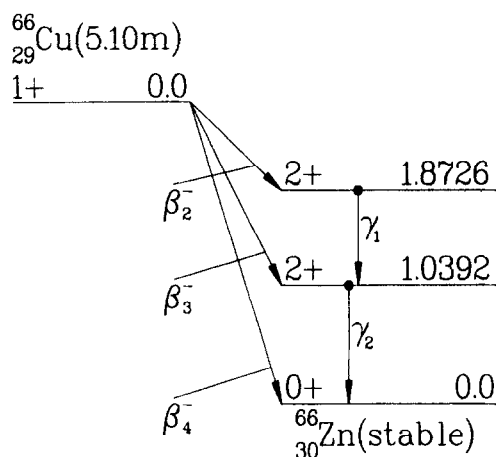
LISTED X, γ AND γ_{\pm} RADIATIONS	8.47E-02
OMITTED X, γ AND γ_{\pm} RADIATIONS**	4.70E-05
LISTED β , ce AND Auger RADIATIONS	1.07E 00
OMITTED β , ce AND Auger RADIATIONS**	4.98E-04
LISTED RADIATIONS	1.15E 00
OMITTED RADIATIONS**	5.45E-04

* AVERAGE ENERGY (MeV)

** EACH OMITTED TRANSITION CONTRIBUTES

<0.100% TO $\sum y(i) \times E(i)$ IN ITS CATEGORY.

ZINC-66 DAUGHTER IS STABLE.



29 - COPPER - 67

HALFLIFE = 61.86 HOURS

27-NOV-78

DECAY MODE(S): β^-

RADIATION	y(i) (Bq-s) ⁻¹	E(i) (MeV)	y(i)×E(i)
β^- 1	1.13E-02	5.072E-02*	5.74E-04
β^- 2	5.72E-01	1.205E-01*	6.90E-02
β^- 3	2.16E-01	1.537E-01*	3.32E-02
β^- 4	2.00E-01	1.890E-01*	3.78E-02
γ 1	7.01E-02	9.127E-02	6.40E-03
ce-K, γ 1	5.10E-03	8.161E-02	4.16E-04
γ 2	1.61E-01	9.331E-02	1.50E-02
ce-K, γ 2	1.21E-01	8.366E-02	1.01E-02
ce-L _I , γ 2	1.07E-02	9.212E-02	9.86E-04
ce-L _I , γ 2	2.45E-03	9.230E-02	2.26E-04
ce-M, γ 2	2.18E-03	9.323E-02*	2.03E-04
γ 3	4.87E-01	1.846E-01	8.99E-02
ce-K, γ 3	9.46E-03	1.749E-01	1.65E-03
ce-L _I , γ 3	9.01E-04	1.834E-01	1.65E-04
γ 4	1.15E-03	2.090E-01	2.40E-04
γ 5	7.97E-03	3.002E-01	2.39E-03
γ 6	2.20E-03	3.935E-01	8.66E-04
K α_1 X-ray	3.78E-02	8.639E-03	3.27E-04
K α_2 X-ray	1.93E-02	8.616E-03	1.66E-04
Auger-KLL	5.38E-02	7.467E-03*	4.02E-04
Auger-LMM	1.79E-01	9.443E-04*	1.69E-04

LISTED X, γ AND γ_{\pm} RADIATIONS	1.15E-01
OMITTED X, γ AND γ_{\pm} RADIATIONS**	7.59E-05
LISTED β , ce AND Auger RADIATIONS	1.55E-01
OMITTED β , ce AND Auger RADIATIONS**	4.47E-04
LISTED RADIATIONS	2.70E-01
OMITTED RADIATIONS**	5.23E-04

* AVERAGE ENERGY (MeV)

** EACH OMITTED TRANSITION CONTRIBUTES

<0.100% TO $\sum y(i) \times E(i)$ IN ITS CATEGORY.

ZINC-67 DAUGHTER IS STABLE.

