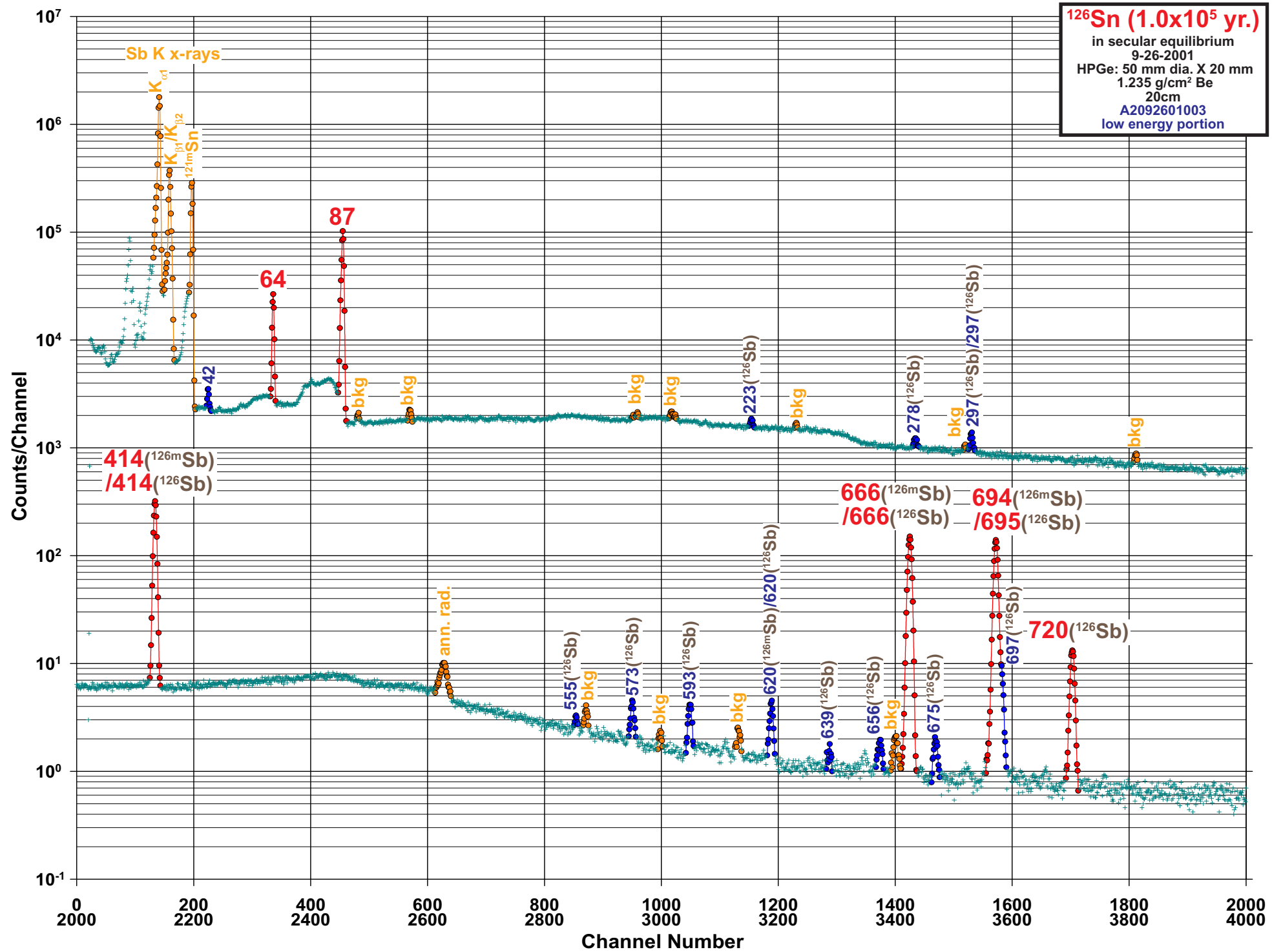
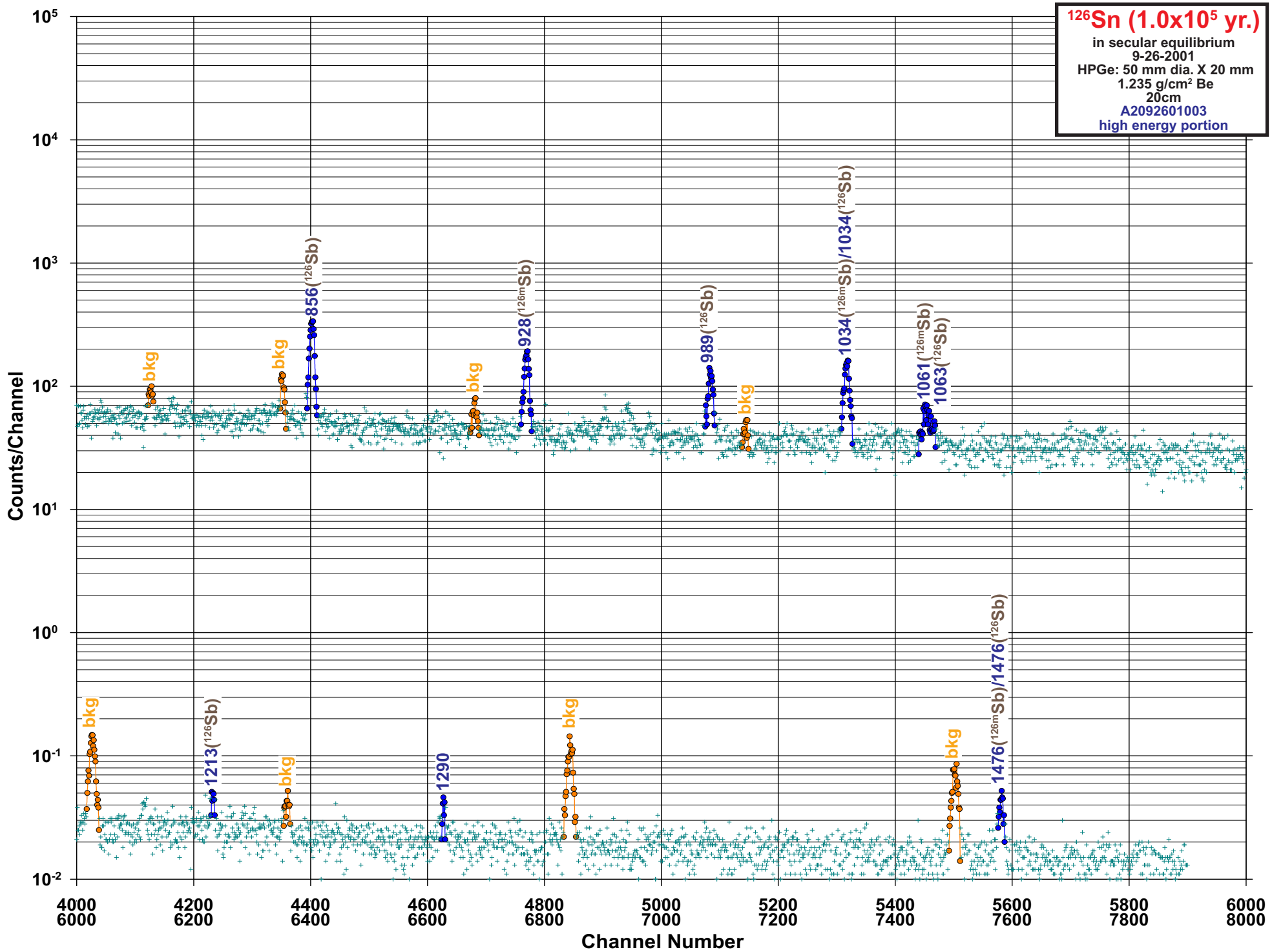

126Sn (1.0x10^5 yr.)
in secular equilibrium
9-26-2001
HPGe: 50 mm dia. X 20 mm
1.235 g/cm2 Be
20cm
A2092601003
low energy portion
Sb K x-rays
Kα1
Kβ1/Kβ2
121mSn
42
64
87
bkg
223(126Sb)
278(126Sb)
297(126Sb)/297(126Sb)
414(126mSb)
/414(126Sb)
ann. rad.
555(126Sb)
573(126Sb)
593(126Sb)
620(126mSb)/620(126Sb)
639(126Sb)
656(126Sb)
675(126Sb)
666(126mSb)
/666(126Sb)
694(126mSb)
/695(126Sb)
697(126Sb)
720(126Sb)
Counts/Channel
Channel Number
Table of Contents



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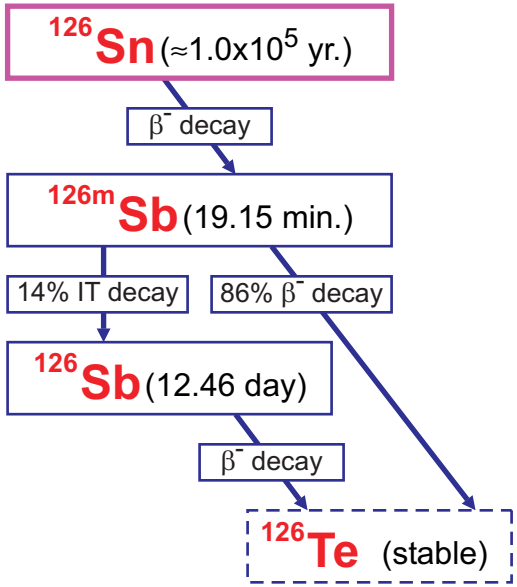
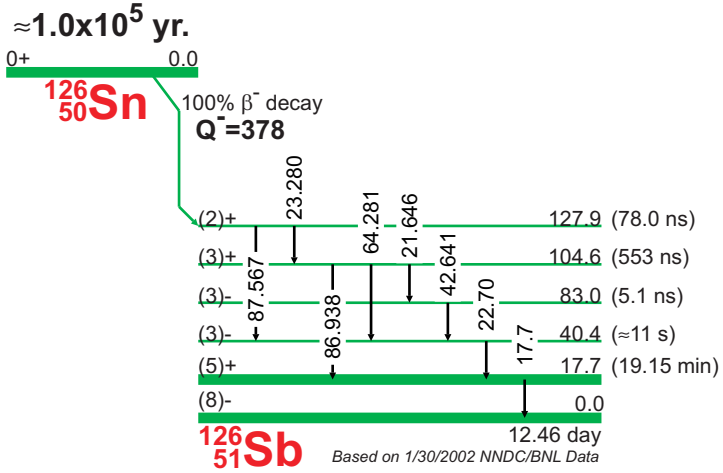
Simplified Decay Chain



^{126}Sn (≈1.0x10^5 yr.) Decay Scheme



GAMMA-RAY ENERGIES AND INTENSITIES

Nuclide: ^{126}Sn Half Life: 100,000(≈) yr.

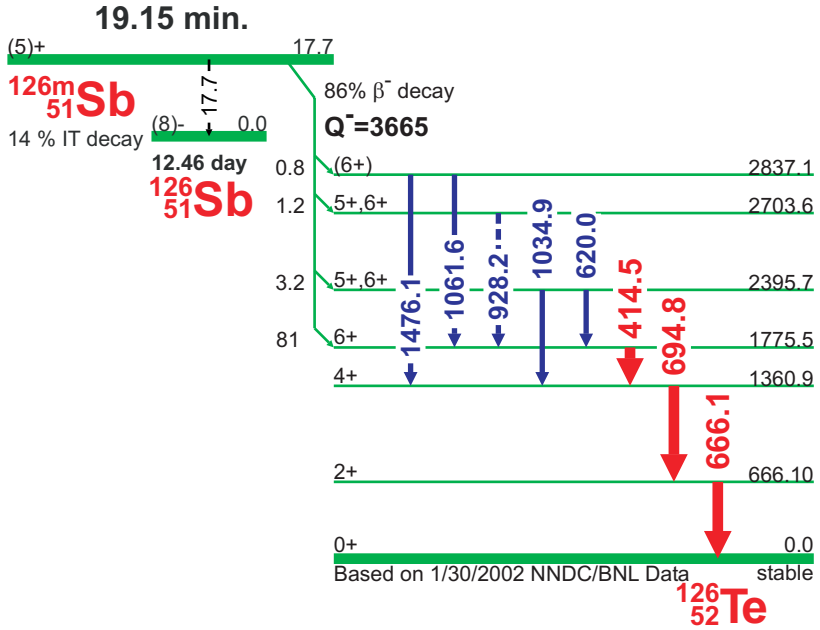
E_γ (keV)	σ E_γ	① I_γ	② σI_γ	Level	
17.7	0.3	0.000 044		17.7	β–
21.646	0.010	1.3	0.1	104.6	β–
22.70	0.07	0.10	0.01	40.4	β–
23.280	0.010	6.4	0.6	127.9	β–
42.641	0.010	0.50	0.05	83	β–
64.281	**0.010**	**9.6**	**1.1**	**104.6**	**β–**
86.938	0.010	8.9	0.9	104.6	β–
87.567	**0.010**	**37**		**127.9**	**β–**

E_γ, σE_γ, I_γ, σI_γ, Levels from ENSDF Database as of January 30, 2002

① These Iγ are per 100 Decays of ^{126}Sn.

② For total uncertainty add 10.8% systematic component in quadrature, based on the normalization factor 0.37(4)

^{126m}Sb (19.15 min.) Decay Scheme



GAMMA-RAY ENERGIES AND INTENSITIES

Nuclide: ^{126m}Sb Half Life: 19.15(8) min.

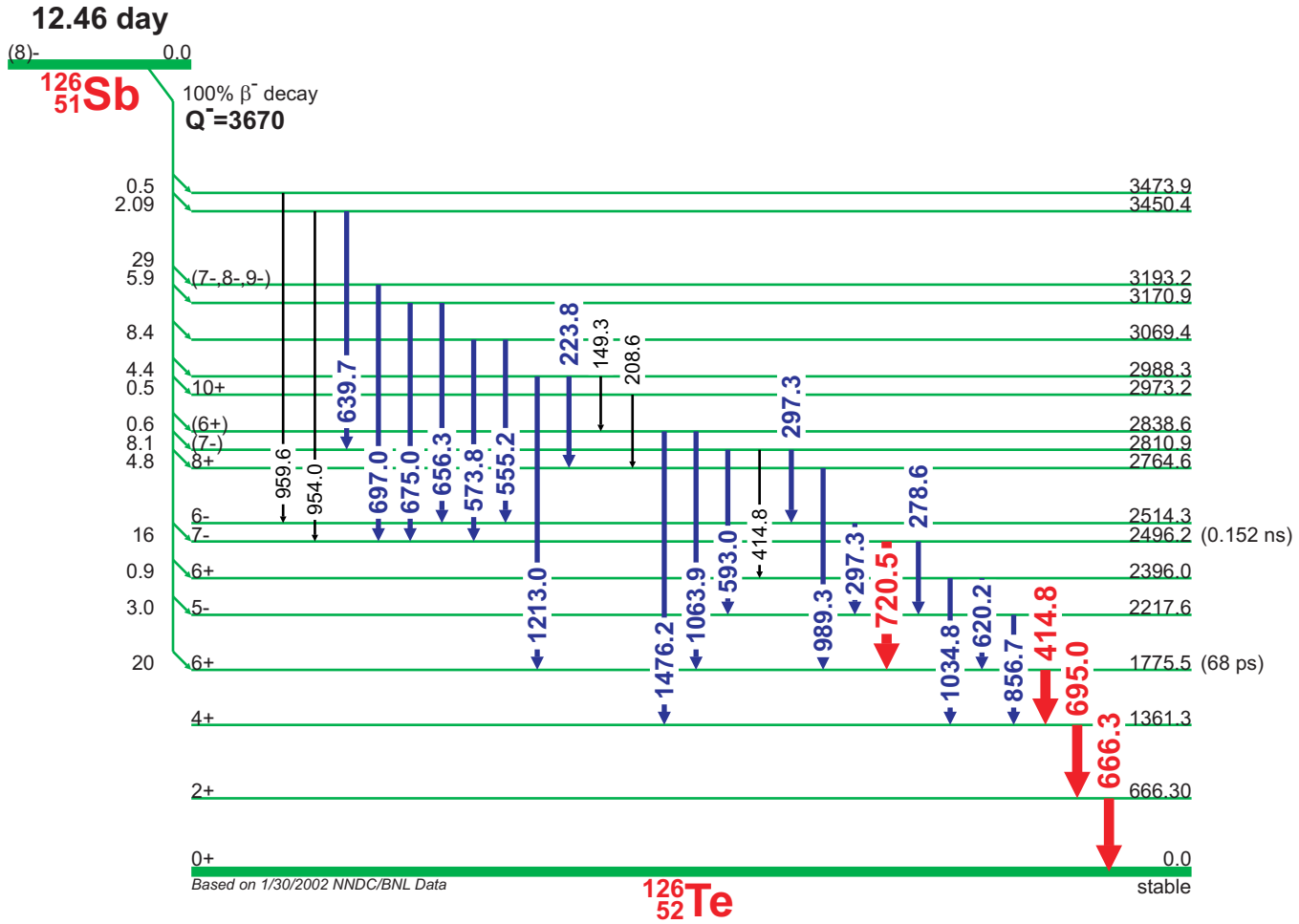
E_γ (keV)	σ E_γ	① I_γ	② σI_γ	Level	
17.7	0.3	0.000 045 5	0.000 001 4	17.7	IT
414.5	**0.2**	**86**	**4**	**1,775.5**	**β–**
620.0	0.2	1.5	0.2	2,395.7	β–
666.1	**0.2**	**86**		**666.1**	**β–**
694.8	**0.3**	**83**	**4**	**1,360.9**	**β–**
928.2	0.3	1.3	0.3	2,703.6	β–
1,034.9	0.2	1.8	0.2	2,395.7	β–
1,061.6	0.4	0.5	0.1	2,837.1	β–
1,476.1	0.6	0.3	0.1	2,837.1	β–

E_γ, σE_γ, I_γ, σI_γ, Levels from ENSDF Database as of January 30, 2002

① These Iγ are per 100 Decays of ^{126}Sb.

② For IT decay total uncertainty add 28.6% systematic component in quadrature, based on the normalization factor 0.14(4). For β- decay total uncertainty add 4.6% systematic component in quadrature, based on the normalization factor 0.86(4).

^{126}Sb (12.46 day) Decay Scheme



GAMMA-RAY ENERGIES AND INTENSITIES

Nuclide: ^{126}Sb

E_γ, σE_γ, I_γ, σI_γ, Levels- from ENSDF Database as of January 30, 2002

Half Life: 12.46(3) day

E_γ (keV)	σE_γ	① I_γ	② σI_γ	Level	
149.3	0.2	0.4	0.2	2,988.3	β–
208.6	0.8	0.5	0.2	2,973.2	β–
223.8	0.2	1.4	0.1	2,988.3	β–
278.6	0.2	2.4	0.6	2,496.2	β–
297.3	0.2	4.5	0.4	2,514.3	β–
297.3	0.2	0.5	0.2	2,810.9	β–
363.5	0.9	0.27	0.05		β–
386.3	0.9	0.20	0.05		β–
414.8	**0.2**	**83.6**	**2.1**	**1,775.5**	**β–**
414.8	0.2	1.0	0.3	2,810.9	β–
555.2	0.2	1.7	0.2	3,069.4	β–
573.8	0.2	6.7	0.3	3,069.4	β–
593.0	0.2	7.5	0.4	2,810.9	β–
605.4	0.2	1.4			β–
620.2	0.2	0.9	0.1	2,396.0	β–
639.7	0.2	0.9	0.1	3,450.4	β–
646.0	0.2	1			β–
656.3	0.2	2.2	0.1	3,170.9	β–
666.3	**0.2**	**100**		**666.30**	**β–**
675.0	0.2	3.7	1.0	3,170.9	β–
695.0	**0.2**	**100**		**1,361.3**	**β–**
697.0	0.2	29	7	3,193.2	β–
720.5	**0.2**	**54.0**	**2.4**	**2,496.2**	**β–**
730.9	0.2	0.6			β–
856.7	0.2	17.6	0.9	2,217.6	β–
954.0	0.2	1.2	0.1	3,450.4	β–
959.6	0.2	0.5	0.1	3,473.9	β–
989.3	0.2	6.8	0.3	2,764.6	β–
1,034.8	0.2	1.00	0.05	2,396.0	β–
1,063.9	0.2	0.9	0.6	2,838.6	β–
1,213.0	0.2	2.4	0.2	2,988.3	β–
1,476.2	0.2	0.28	0.03	2,838.6	β–

① These I_γ are per 100 Decays of ^{126}Sb. For ^{126m}Sb parent, multiply these values by 0.14

② For total uncertainty add systematic component of 0.1% in quadrature, based on the normalization factor 0.996(1)