^{115}In(α,tγ) 1992Sc20,1988ScZU

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jean Blachot	NDS 111, 717 (2010)	1-Dec-2009

E(α)=65 MeV.
Magnetic spectrometer QMG/2,GeLi) BGO anti-Compton shield.
Measured tritons at 0°. The energy resolution=20 keV.
Measured γ, $\gamma\gamma$, γ in coin with tritons and excitation energy.

^{116}Sn Levels

E(level)	J$^\pi$†	$T_{1/2}$	E(level)	J$^\pi$†	E(level)	J$^\pi$†	E(level)	J$^\pi$†
0	0^+	stable	2773.1	6^-	3227.9	8^-	4023	5^+
1293.5	2^+		2802.1	4^+	3277.2	6^+	4076	4^+,5^+
1756.8			2908.8	7^-	3379	3^+	4285	$(7)^+$
2112.6	2^+		3033.2	6^+	3492.9	8^+	4765	7^+
2266.1	3^-		3046.5	4^+	3522.5	9^-	4840	$(8,10^-)$
2365.9	5^-		3096.63	4^+	3712.9	8^+	≈5500‡	
2392.2	4^+		3105.6	5^-	3739	3^+	≈5800#	
2529.1	4^+		3209.9	7^-	3887	5^+	6295	(10^-)

† J$^\pi$ are from Adopted Levels and from 1992Sc20 based on γ decay pattern.
‡ Cluster between 5400 and 5600.
# Cluster between 5660 and 5810.

γ(^{116}Sn)

E_γ‡	I_γ†	E_i(level)	J_i^π	E_f	J_f^π	E_γ‡	I_γ†	E_i(level)	J_i^π	E_f	J_f^π
99		2365.9	5^-	2266.1	3^-	819		2112.6	2^+	1293.5	2^+
135		2908.8	7^-	2773.1	6^-	841	98	3887	5^+	3046.5	4^+
136	125	4023	5^+	3887	5^+	844		3209.9	7^-	2365.9	5^-
189	101	4076	4^+,5^+	3887	5^+	853		3379	3^+	2529.1	4^+
260	60	4285	$(7)^+$	4023	5^+	973		2266.1	3^-	1293.5	2^+
284	171	4023	5^+	3739	3^+	989		3379	3^+	2392.2	4^+
295		3522.5	9^-	3227.9	8^-	1008	227	4285	$(7)^+$	3277.2	6^+
319		3227.9	8^-	2908.8	7^-	1028	114	4076	4^+,5^+	3046.5	4^+
331		3105.6	5^-	2773.1	6^-	1057	855	4285	$(7)^+$	3227.9	8^-
407		2773.1	6^-	2365.9	5^-	1072		2365.9	5^-	1293.5	2^+
416.9		2529.1	4^+	2112.6	2^+	1086	142	3887	5^+	2802.1	4^+
436		3209.9	7^-	2773.1	6^-	1099		2392.2	4^+	1293.5	2^+
463		1756.8		1293.5	2^+	1114	145	3887	5^+	2773.1	6^-
503.8		3033.2	6^+	2529.1	4^+	1252	193	4285	$(7)^+$	3033.2	6^+
509	636	3887	5^+	3379	3^+	1293.5		1293.5	2^+	0	0^+
543		2908.8	7^-	2365.9	5^-	1325	61	4840	$(8,10^-)$	3522.5	9^-
578		3379	3^+	2802.1	4^+	1348		3739	3^+	2392.2	4^+
583		3492.9	8^+	2908.8	7^-	1354	217	4840	$(8,10^-)$	3492.9	8^+
641		3033.2	6^+	2392.2	4^+	1358	72	3887	5^+	2529.1	4^+
681		3712.9	8^+	3033.2	6^+	1375	244	4285	$(7)^+$	2908.8	7^-
695	209	4076	4^+,5^+	3379	3^+	1487	164	4765	7^+	3277.2	6^+
706		3096.63	4^+	2392.2	4^+	1494	475	3887	5^+	2392.2	4^+
747	1061	4023	5^+	3277.2	6^+	1509		2802.1	4^+	1293.5	2^+
748		3277.2	6^+	2529.1	4^+	1512	211	4285	$(7)^+$	2773.1	6^-
791	130	3887	5^+	3096.63	4^+	1521	91	3887	5^+	2365.9	5^-
799	161	4076	4^+,5^+	3277.2	6^+	1537	40	4765	7^+	3227.9	8^-

Continued on next page (footnotes at end of table)

^{115}In(α,tγ) 1992Sc20,1988ScZU (continued)

γ(^{116}Sn) (continued)

E_γ[‡]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	E_γ[‡]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π
1549	77	4076	$4^+,5^+$	2529.1	4^+	1754		3046.5	4^+	1293.5	2^+
1555	132	4765	7^+	3209.9	7^-	1918	408	4285	$(7)^+$	2365.9	5^-
1618	68	3887	5^+	2266.1	3^-	1936	131	4840	$(8,10^-)$	2908.8	7^-
1631	161	4023	5^+	2392.2	4^+	2113		2112.6	2^+	0	0^+
1659	328	4023	5^+	2365.9	5^-	≈2250	370	≈5800		3522.5	9^-
1685	353	4076	$4^+,5^+$	2392.2	4^+	≈2285	1868	≈5500			
1712	118	4076	$4^+,5^+$	2365.9	5^-	2770	370	6295	(10^-)	3522.5	9^-

[†] Relative photon branching from each level (1988ScZU).
[‡] The γ spectra were obtained by gating on energy slices in the triton spectrum.

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Level Scheme

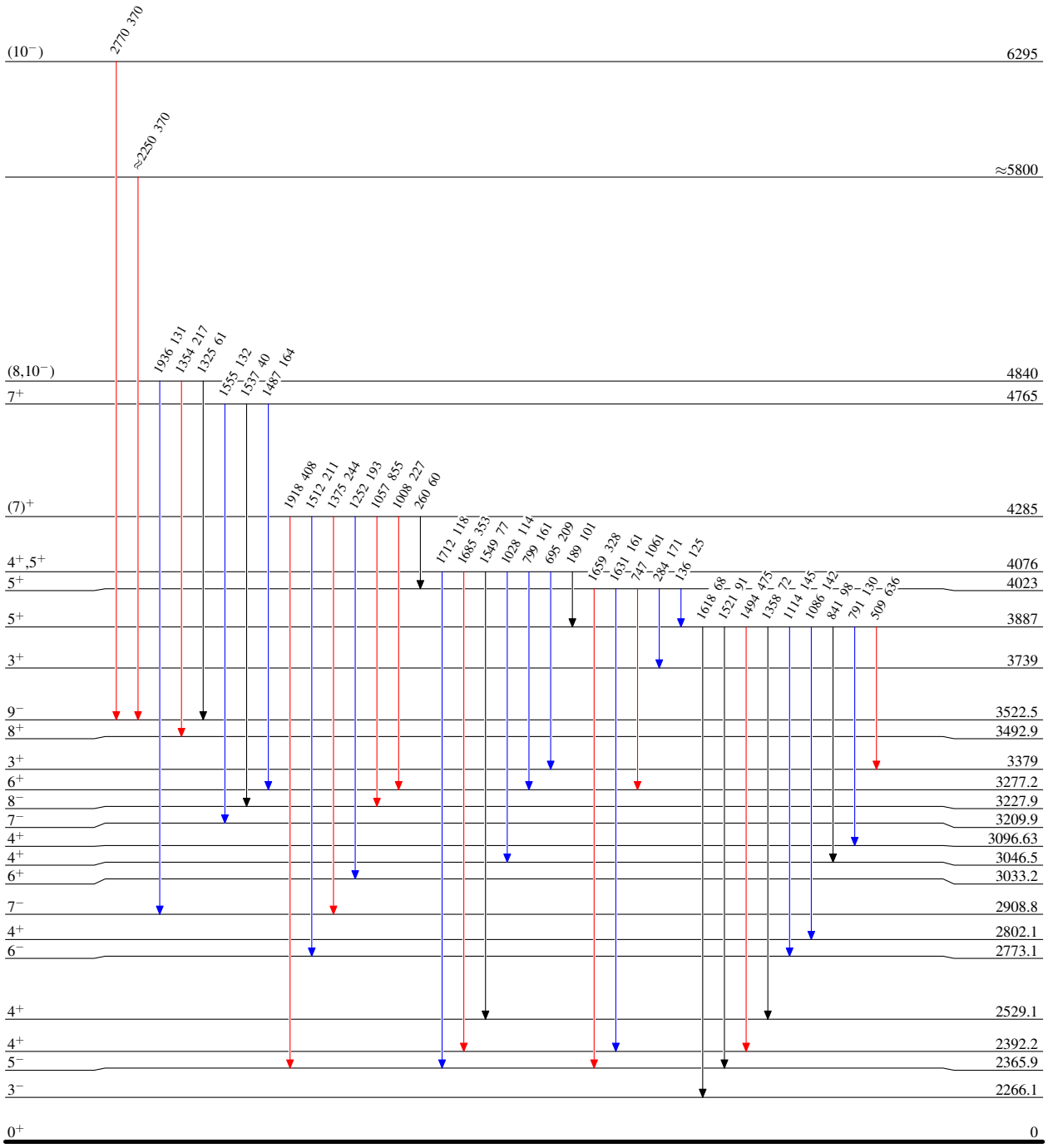
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$

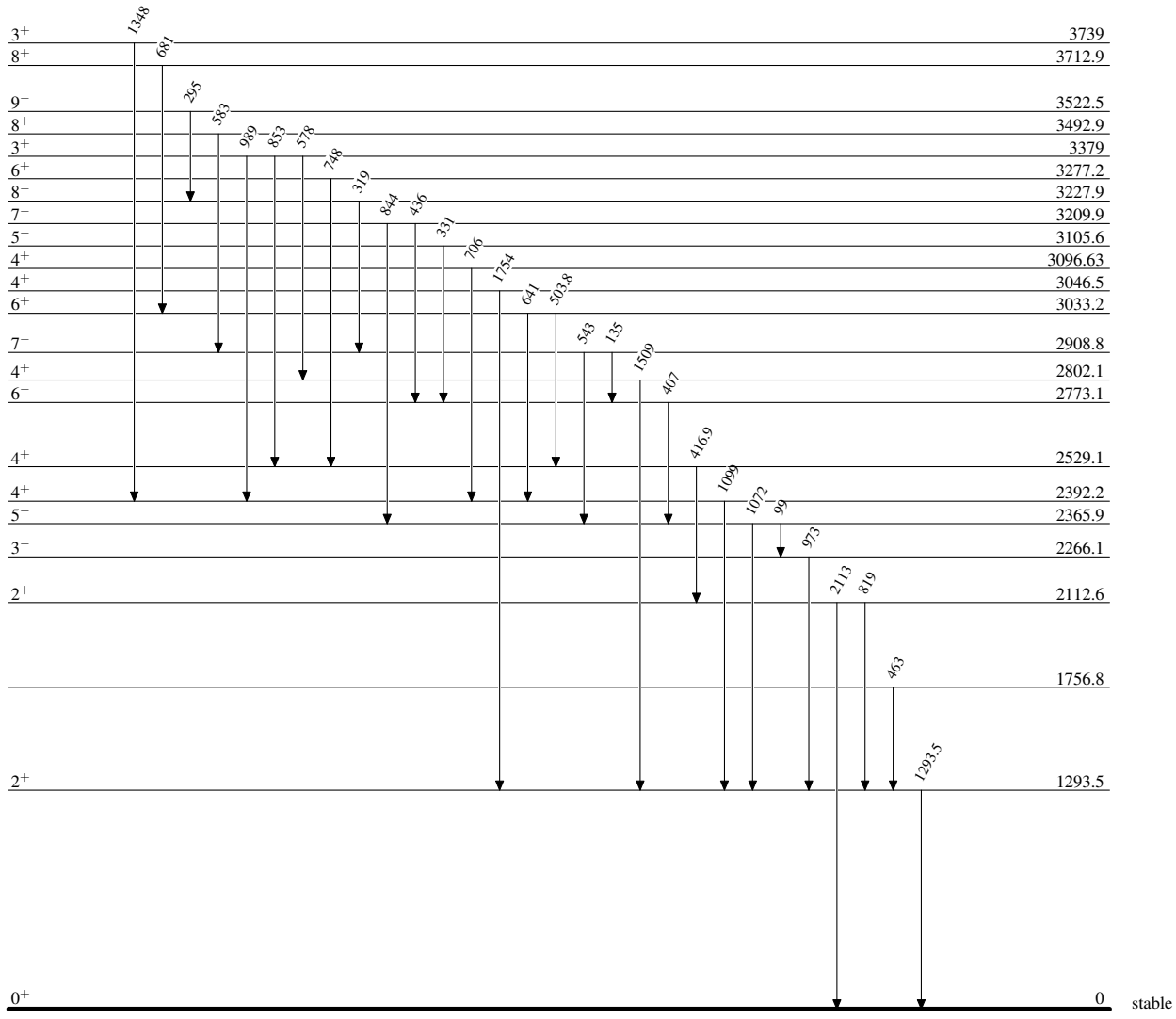


$^{116}_{50}Sn_{66}$

^{115}In(α,tγ) **1992Sc20,1988ScZU**

Level Scheme (continued)

Intensities: Relative I_γ



$^{116}_{50}Sn_{66}$