^{48}Ti(n,γ),(pol n,γ) E=th 1992Ku17,1983Ru08,2003ChXS

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows[a]	NDS 109,1879 (2008)	14-Jul-2008

1969TrZX: measured γ′s; crystal diffraction spectrometer, Ge(Li). Natural target.
1983Ru08: measured γ′s, Ge(Li) (60 keV<Eγ<2.5 MeV) and pair spectrometer (Ge(Li), NaI. Eγ=2.0-6.8 MeV) and circular polarization (18 primary γ′s), permendur cylinders.
1988Bo34, 1992Ku17: measured Doppler broadening of γ′s; flat crystal spectrometer. Deduced $T_{1/2}$′s; molecular dynamics simulation.
2003ChZS: measured γ′s; HPGe; natural target. Obtained Prompt Gamma-Ray Activation datasets for Ca using their data, ENSDF (1995Bu23), and 1981Lo16.
Others: 2001Ac04 and 2002Re13. See also 1995Bu23.

^{49}Ti Levels

See 1995Bu23 for levels proposed by 1969TrZX that have not been adopted.

E(level)†	Jπ‡	$T_{1/2}$#	E(level)†	Jπ‡	$T_{1/2}$#
0.0	7/2− @		3618.49 *13*	5/2− @	
1381.770 *5*	3/2−	0.97& ps *+83−35*	3787.67 *6*	3/2−	
1585.967 *6*	3/2−	1.3& ps *+13−3*	3854.97 *7*	3/2 d	
1622.54? *16*	(5/2)− @		4074.17 *22*	5/2−,7/2− @	
1723.478 *6*	1/2−		4221.800 *23*	1/2−	
1762.010 *7*	5/2− @	20.1 a fs *14*	4433.26 *4*	3/2−	
2260.96 *14*	(5/2)− @		4588.24 *4*	3/2−	
2504.36 *4*	1/2+		4666.665 *21*	1/2−	
2513.44 *15*	b		4811.02 *10*		
2664.36 *4*	3/2+ c		4910.92 *5*	1/2−	
2721.30 *6*			5115.561 *21*	1/2−	
3038.68 *9*	(≤5/2−) @		5151.12 *10*	3/2 d	
3175.283 *9*	1/2−	54.8 a fs *28*	5412.03 *9*	1/2+ @	
3260.702 *7*	3/2−	11.2 a fs *5*	5795.48 *15*	(3/2−,1/2−) @	
3428.25 *3*	3/2−		(8142.39 e *3*)	1/2+ f	4.4 g eV *10*
3469.03 *3*	1/2−				

† From least-squares fit to Eγ′s.
‡ From L(d,p) and the γ-CP and γ strengths of 1983Ru08, except as noted.
# From Doppler broadening of deexciting transitions (1988Bo34, 1992Ku17) except for Γ_γ(capture state). Data from 1988Bo34 are considered preliminary and have not been included in the Adopted Levels.
@ From the Adopted Levels.
& From 1988Bo34.
a From 1992Ku17.
b See discussion in the Adopted Levels.
c L(d,p)=2; primary γ too strong to be E2.
d ≠1/2 since circular polarization coefficient R=1.00 excluded. ≠5/2 since the primary γ′s too strong to be E2 or M2 in nature.
e From 2003Au03. Held fixed in least-squares fit.
f Thermal capture on an even-even nucleus.
g Γ_γ for 17.6 keV, 1/2+ resonance from 2006MuZX. The ^{48}Ti scattering cross section at keV energies and its large thermal cross section (7.84 b *25*) may be explained satisfactorily by this 1/2+ resonance (2006MuZX) and, therefore, 1983Ru08 employed this

Continued on next page (footnotes at end of table)

^{48}Ti(n,γ),(pol n,γ) E=th 1992Ku17,1983Ru08,2003ChXS (continued)

^{49}Ti Levels (continued)

Γ_γ along with the primary γ-ray branchings to estimate of the primary γ-ray strengths. Γ_γ(17.6 keV)=4.4 eV *10* and σ_0=8.32 b *16* (2006MuZX).

γ(^{49}Ti)

Systematic uncertainty=5%.

The precision of the energy and intensity measurements by 1983Ru08 are one order of magnitude better than those of 1969Fe08 while the energies agree within uncertainties, the absolute intensities given by 1969Fe08 are ≈30% smaller than those of 1983Ru08.

The precision of the energy measurements of 1983Ru08 are usually better than those of 2003ChZS. The energies generally agree within uncertainties. The absolute intensities could not be compared.

1983Ru08 noted that the 361γ, 740γ, and 2005γ observed by 1969Fe08 were double-escape peaks while the 874γ and 3633γ were identified as contaminants. The 1846.7γ observed by 1969Fe08 appears to be an unresolved doublet consisting of the 1842.41γ and 1853.7γ.

The following criteria were used by 1983Ru08 to place the gammas: 1. Placement is within 3σ unambiguous. Both levels concerned are excited or deexcited by at least three transitions for which this condition holds. 2. Placement is within 3σ unambiguous. Only one of the levels concerned is excited or deexcited by at least three transitions for which this condition holds. 3. Placement based on $\gamma\gamma$-coincidences (1968Ca01,NaI). 1983Ru08 note how each γ was placed.

See 1995Bu23 for γ's assigned by 1969TrZX that have not been adopted.

E_γ[†]	I_γ[‡o]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	δ	Comments
137.42[@] 7	0.54 3	1723.478	1/2$^-$	1585.967	3/2$^-$			σ^Z_γ(b)=0.0542 9.
149.56 15	0.041 6	3618.49	5/2$^-$	3469.03	1/2$^-$			
341.706[&] 4	24.80 21	1723.478	1/2$^-$	1381.770	3/2$^-$	M1+E2[a]	+0.1[a]	α(exp)=0.00095 14 σ^Z_γ(b)=1.843 21.
434.09 16	0.033 5	4221.800	1/2$^-$	3787.67	3/2$^-$			σ^Z_γ(b)=0.00102 19.
[x]460.2[p] 3	0.018 5							
605.2 3	0.030 6	4074.17	5/2$^-$,7/2$^-$	3469.03	1/2$^-$			
638.41[b] 7	[c]	2260.96	(5/2)$^-$	1622.54?	(5/2)$^-$			σ^Z_γ(b)=0.0035 3.
[x]703.5 2	0.027 6							
879.16[b] 17	0.05[d]	2260.96	(5/2)$^-$	1381.770	3/2$^-$			σ^Z_γ(b)=0.0023 5.
902.38[e] 5	0.127 6	2664.36	3/2$^+$	1762.010	5/2$^-$			σ^Z_γ(b)=0.0073 6.
[x]986.74 11	0.027 6							
1077.0 3	0.042 8	5151.12	3/2	4074.17	5/2$^-$,7/2$^-$			
1122.69[@] 8	0.72 3	2504.36	1/2$^+$	1381.770	3/2$^-$			σ^Z_γ(b)=0.0475 12.
1135.35 6	0.212 10	2721.30		1585.967	3/2$^-$			σ^Z_γ(b)=0.0119 8.
[x]1243.31 17	0.053 6							
1315.6 3	0.034 6	3038.68	(≤5/2$^-$)	1723.478	1/2$^-$			
1327.74[fp] 8	0.254 10	4588.24	3/2$^-$	3260.702	3/2$^-$			σ^Z_γ(b)=0.0168 11.
1350.46 14	0.063 6	3854.97	3/2	2504.36	1/2$^+$			
1381.745[&] 5	85.5 21	1381.770	3/2$^-$	0.0	7/2$^-$			σ^Z_γ(b)=5.18 12.
1406.36 16	0.055 5	4666.665	1/2$^-$	3260.702	3/2$^-$			
1451.79 4	0.242 8	3175.283	1/2$^-$	1723.478	1/2$^-$			σ^Z_γ(b)=0.0143 7.
1498.662[&] 7	4.89 13	3260.702	3/2$^-$	1762.010	5/2$^-$			σ^Z_γ(b)=0.297 5.

γ(^{49}Ti) (continued)

E_γ[†]	I_γ[‡o]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[#]	Comments
1532.79 21	0.053 6	5151.12	3/2	3618.49	5/2⁻		
1549.56[e] 8	0.115 6	4588.24	3/2⁻	3038.68	(≤5/2⁻)		σ_γ^Z(b)=0.0081 7.
1585.942[&] 6	10.2 3	1585.967	3/2⁻	0.0	7/2⁻		σ_γ^Z(b)=0.624 8.
1589.27[g] 8	1.01[h] 3	3175.283	1/2⁻	1585.967	3/2⁻		σ_γ^Z(b)=0.0524 16.
1622.84[bp] 16	[c]	1622.54?	(5/2)⁻	0.0	7/2⁻		σ_γ^Z(b)=0.0042 9.
1646.46 21	0.046 5	5115.561	1/2⁻	3469.03	1/2⁻		σ_γ^Z(b)=0.0041 10.
1665.96 17	0.048[h] 5	3428.25	3/2⁻	1762.010	5/2⁻		σ_γ^Z(b)=0.0041 6.
1674.734[&] 22	0.397 12	3260.702	3/2⁻	1585.967	3/2⁻		σ_γ^Z(b)=0.0262 10.
1761.971[&] 8	5.35 16	1762.010	5/2⁻	0.0	7/2⁻		σ_γ^Z(b)=0.331 4.
1793.478[&] 8	2.57 8	3175.283	1/2⁻	1381.770	3/2⁻		σ_γ^Z(b)=0.1533 24.
1842.24[b] 4	0.31 4	3428.25	3/2⁻	1585.967	3/2⁻		σ_γ^Z(b)=0.0436 13.
1853.7[g] 5	0.066 20	5115.561	1/2⁻	3260.702	3/2⁻		σ_γ^Z(b)=0.0022 5.
1878.891[b] 10	≈0.5[d]	3260.702	3/2⁻	1381.770	3/2⁻		σ_γ^Z(b)=0.0039 6.
1883.06[b] 4	0.32 4	3469.03	1/2⁻	1585.967	3/2⁻		σ_γ^Z(b)=0.0403 12.
1940.33[bfp] 6	0.18 3	5115.561	1/2⁻	3175.283	1/2⁻		σ_γ^Z(b)=0.0114 5.
[x]1973.0 4	0.032 6						
[x]2003.51 20	0.34 8						
2046.44[b] 5	0.260[h] 25	3428.25	3/2⁻	1381.770	3/2⁻		σ_γ^Z(b)=0.0266 11.
2132.0[b] 3	0.031 15	3854.97	3/2	1723.478	1/2⁻		σ_γ^Z(b)=0.0027 5.
2307.3 4	0.043 7	4811.02		2504.36	1/2⁺		
2346.79 20	0.097 12	(8142.39)	1/2⁺	5795.48	(3/2⁻,1/2⁻)	D,E2[i]	σ_γ^Z(b)=0.0078 9.
2405.76[b] 8	0.211 16	3787.67	3/2⁻	1381.770	3/2⁻		σ_γ^Z(b)=0.0177 10.
2430.9 4	0.035 9	5151.12	3/2	2721.30			
2473.03[b] 14	0.073 10	3854.97	3/2	1381.770	3/2⁻		σ_γ^Z(b)=0.0043 5.
2498.24 7	0.299 17	4221.800	1/2⁻	1723.478	1/2⁻		
2513.30 15	0.219 18	2513.44		0.0	7/2⁻		
[x]2529.1 5	0.032 8						
[x]2548.8 4	0.040 8						
[x]2591.1 5	0.028 8						
2600.9 6	0.027 8	5115.561	1/2⁻	2513.44			
2611.04 8	0.250 14	5115.561	1/2⁻	2504.36	1/2⁺		σ_γ^Z(b)=0.0188 12.
2635.5 3	0.123 21	4221.800	1/2⁻	1585.967	3/2⁻		
[x]2686.66 5	0.336 15						
2709.63[e] 12	0.127 11	4433.26	3/2⁻	1723.478	1/2⁻		σ_γ^Z(b)=0.0096 10.
2730.27[e] 10	0.147 11	(8142.39)	1/2⁺	5412.03	1/2⁺	D,E2[i]	σ_γ^Z(b)=0.0109 10.
2839.88 4	0.630 23	4221.800	1/2⁻	1381.770	3/2⁻		σ_γ^Z(b)=0.0437 16.
2847.39 15	0.105[h] 8	4433.26	3/2⁻	1585.967	3/2⁻		σ_γ^Z(b)=0.0066 9.
2943.00 3	0.94 3	4666.665	1/2⁻	1723.478	1/2⁻		σ_γ^Z(b)=0.0614 18.

$^{49}_{22}$Ti$_{27}$-4

γ(^{49}Ti) (continued)

E_{γ}[†]	I_{γ}[‡o]	E_i(level)	J_i^{π}	E_f	J_f^{π}	Mult.[#]	Comments
2991.17[@] 15	0.185 12	(8142.39)	1/2$^+$	5151.12	3/2	D[j]	σ_{γ}^{Z}(b)=0.0134 13.
3002.11 9	0.239 12	4588.24	3/2$^-$	1585.967	3/2$^-$		σ_{γ}^{Z}(b)=0.0150 14.
[x]3013.2 3	0.052 8						
3026.68[k] 3	2.07 6	(8142.39)	1/2$^+$	5115.561	1/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.145 3.
[x]3051.25[l] 11							σ_{γ}^{Z}(b)=0.167 15.
3187.19[g] 28	0.141 8	4910.92	1/2$^-$	1723.478	1/2$^-$		σ_{γ}^{Z}(b)=0.0099 11.
3205.96 17	0.086 7	4588.24	3/2$^-$	1381.770	3/2$^-$		σ_{γ}^{Z}(b)=0.0053 9.
3224.89 11	0.152 9	4811.02		1585.967	3/2$^-$		σ_{γ}^{Z}(b)=0.0117 11.
3231.36 5	0.403 14	(8142.39)	1/2$^+$	4910.92	1/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.0259 14.
3284.85 13	0.111 7	4666.665	1/2$^-$	1381.770	3/2$^-$		
3325.10 25	0.065 7	4910.92	1/2$^-$	1585.967	3/2$^-$		σ_{γ}^{Z}(b)=0.0037 9.
3331.3 3	0.054 7	(8142.39)	1/2$^+$	4811.02		D,E2[i]	
3388.0 7	0.020 6	5151.12	3/2	1762.010	5/2$^-$		
3427.7[fp] 5	0.035 7	5151.12	3/2	1723.478	1/2$^-$		
3475.52[k] 3	1.57 4	(8142.39)	1/2$^+$	4666.665	1/2$^-$	D,E2	σ_{γ}^{Z}(b)=0.1016 25.
3529.31[fp] 10	0.168 8	5115.561	1/2$^-$	1585.967	3/2$^-$		σ_{γ}^{Z}(b)=0.0105 10.
3534.37[b] 17	0.062 7	5795.48	(3/2$^-$,1/2$^-$)	2260.96	(5/2)$^-$		
3553.99[k] 4	0.684 17	(8142.39)	1/2$^+$	4588.24	3/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.0460 17.
3564.71 17	0.079 7	5151.12	3/2	1585.967	3/2$^-$		σ_{γ}^{Z}(b)=0.0038 8.
3708.98[k] 4	0.585 15	(8142.39)	1/2$^+$	4433.26	3/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.0369 17.
3733.61 3	1.31 3	5115.561	1/2$^-$	1381.770	3/2$^-$		σ_{γ}^{Z}(b)=0.0873 25.
3920.38[k] 3	1.289 22	(8142.39)	1/2$^+$	4221.800	1/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.0839 23.
4030.06[k] 16	0.062 5	5412.03	1/2$^+$	1381.770	3/2$^-$		
4071.7 4	0.032 5	5795.48	(3/2$^-$,1/2$^-$)	1723.478	1/2$^-$		σ_{γ}^{Z}(b)=0.0028 8.
[x]4150.4 3	0.045 6						
[x]4200.5 6	0.020 5						
[x]4240.4 6	0.020 5						
4287.18[k] 8	0.136 5	(8142.39)	1/2$^+$	3854.97	3/2	D[j]	σ_{γ}^{Z}(b)=0.0088 9.
4354.44[@] 8	0.355 8	(8142.39)	1/2$^+$	3787.67	3/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.0242 18.
4673.16[k] 4	0.560 10	(8142.39)	1/2$^+$	3469.03	1/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.0376 18.
4713.75[g] 12	0.956 14	(8142.39)	1/2$^+$	3428.25	3/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.0661 21.
4881.384[k] 26	4.51 5	(8142.39)	1/2$^+$	3260.702	3/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.308 7.
4966.85[g] 7	2.89 3	(8142.39)	1/2$^+$	3175.283	1/2$^-$	D,E2[i]	σ_{γ}^{Z}(b)=0.196 5.
[x]5204.37 14	0.074 4						
[x]5291.8 5	0.020 4						
5477.77[k] 6	0.206 5	(8142.39)	1/2$^+$	2664.36	3/2$^+$	M1[m]	σ_{γ}^{Z}(b)=0.0135 13.
[x]5543.4 4	0.023 4						

$^{49}_{22}Ti_{27}$-5

γ(^{49}Ti) (continued)

E_γ[†]	I_γ[‡o]	E_i(level)	J^π_i	E_f	J^π_f	Mult.[#]	Comments
5637.74[@] *4*	0.428 *7*	(8142.39)	1/2$^+$	2504.36	1/2$^+$	D,E2[i]	σ^Z_γ(b)=0.0256 *16*.
[x]6195.1 *9*	0.022 *7*						
6418.53[@] *6*	30.5 *3*	(8142.39)	1/2$^+$	1723.478	1/2$^-$	D,E2[in]	σ^Z_γ(b)=1.96 *6*.
6555.99[@] *4*	5.09 *5*	(8142.39)	1/2$^+$	1585.967	3/2$^-$	D,E2[i]	σ^Z_γ(b)=0.334 *8*.
6760.12[@] *4*	46.3 *4*	(8142.39)	1/2$^+$	1381.770	3/2$^-$	D,E2[i]	σ^Z_γ(b)=2.97 *9*.

[†] From 1983Ru08. Converted to γ energies from Eγ+E(recoil) by the evaluator. Statistical uncertainty given. Calibration for high−energy γ′s were based on the ^{2}H and ^{15}N neutron binding energies; if S(n)(^{15}N)=10833.230 (2003Au03), these energies may need to be reduced by up to 7 ppm.

[‡] Absolute intensity per 100 n-captures. See 1983Ru08 for branching ratios. Statistical uncertainty given.

[#] The upper limit for E2 radiation proposed by J. Kopecky (E.C.N. Report, ϵN(exp)−99 (1981)) and RUL(M2) (1979En04) were assumed by 1983Ru08 to estimate the maximum δ(E2,M2) in the circular polarization analysis.

[@] Weighted averages (external) of 137.48 *3* (1983Ru08) and 137.35 *3* (2003ChZS), 1122.63 *3* (2003ChZS) and 1122.79 *4* (1983Ru08), 2991.01 *13* (2003ChZS) and 2991.31 *12* (1983Ru08), 4354.25 *10* (2003ChZS) and 4354.47 *4* [syst. ΔE(γ)=2.6×10^{-4}%] (1983Ru08), 5637.55 *14* (2003ChZS) and 5637.74 *4* [syst. ΔE(γ)=2.6×10^{-4}%] (1983Ru08), 6418.35 *8* (2003ChZS) and 6418.551 *19* [syst. ΔE(γ)=2.6×10^{-4}%] (1983Ru08), 6555.87 *9* (2003ChZS) and 6556.003 *21* [syst. ΔE(γ)=2.6×10^{-4}%] (1983Ru08), and 6760.01 *9* (2003ChZS) and 6760.133 *20* [syst. ΔE(γ)=2.6×10^{-4}%] (1983Ru08).

[&] Systematic ΔE(γ)=2.6×10^{-4}%.

[a] From 1959Kn53 (NaI). Alternative δ excluded by α(exp) and γγ(θ) (1968Ho08). Phase difference between E2 and M1 components is 180.5° 4, consistent with time-reversal invariance (1978Sh07. (pol n,γ), cold 4 angstrom neutron source. 342-1381γγ(θ); NaI with filter and shielding).

[b] From 2003ChZS. 637.8 *5*, 878.5 *5*, 1618 *3*, and 1881 *1* γ′s reported by 1969TrZX; not observed by 1983Ru08. 3534.4γ unplaced by 1983Ru08.

[c] Weak (1969TrZX).

[d] From 1969TrZX. Iγ renormalized by evaluator to Iγ(6419γ)=30.5 from Iγ(6419γ)=29.

[e] Weighted averages (internal) of 902.35 *6* (1983Ru08) and 902.42 *8* (2003ChZS), 1549.56 *8* (1983Ru08) and 1549.67 *11* (2003ChZS), 2709.58 *17* (1983Ru08) and 2709.68 *16* (2003ChZS), and 2730.18 *13* (1983Ru08) and 2730.39 *15* (2003ChZS).

[f] Placed because intensity imbalance is improved appreciably.

[g] Unweighted averages of 1589.19 *5* (2003ChZS) and 1589.348 *19* (1983Ru08), 1853.7 *5* (1983Ru08) and 1855.22 *23* (2003ChZS), 3186.91 *10* (1983Ru08) and 3187.46 *14* (2003ChZS), 4713.63 *7* (2003ChZS) and 4713.86 *3* (1983Ru08), and 4966.68 *6* (2003ChZS) and 4966.877 *23* (1983Ru08).

[h] Branching ratios from 1983Ru08 and 2003ChZS are discrepant.

[i] From comparison to RUL (evaluator).

[j] J(5151,3855)≠1/2 since R=1.00 excluded; primary γ′s too strong to be M2 or E2 in nature.

[k] Systematic ΔE(γ)=3.2×10^{-4}%.

[l] 2003ChZS assign this γ as deexciting a 5312 level and adopt J^π=1/2$^+$. The evaluator has found no other evidence for this state.

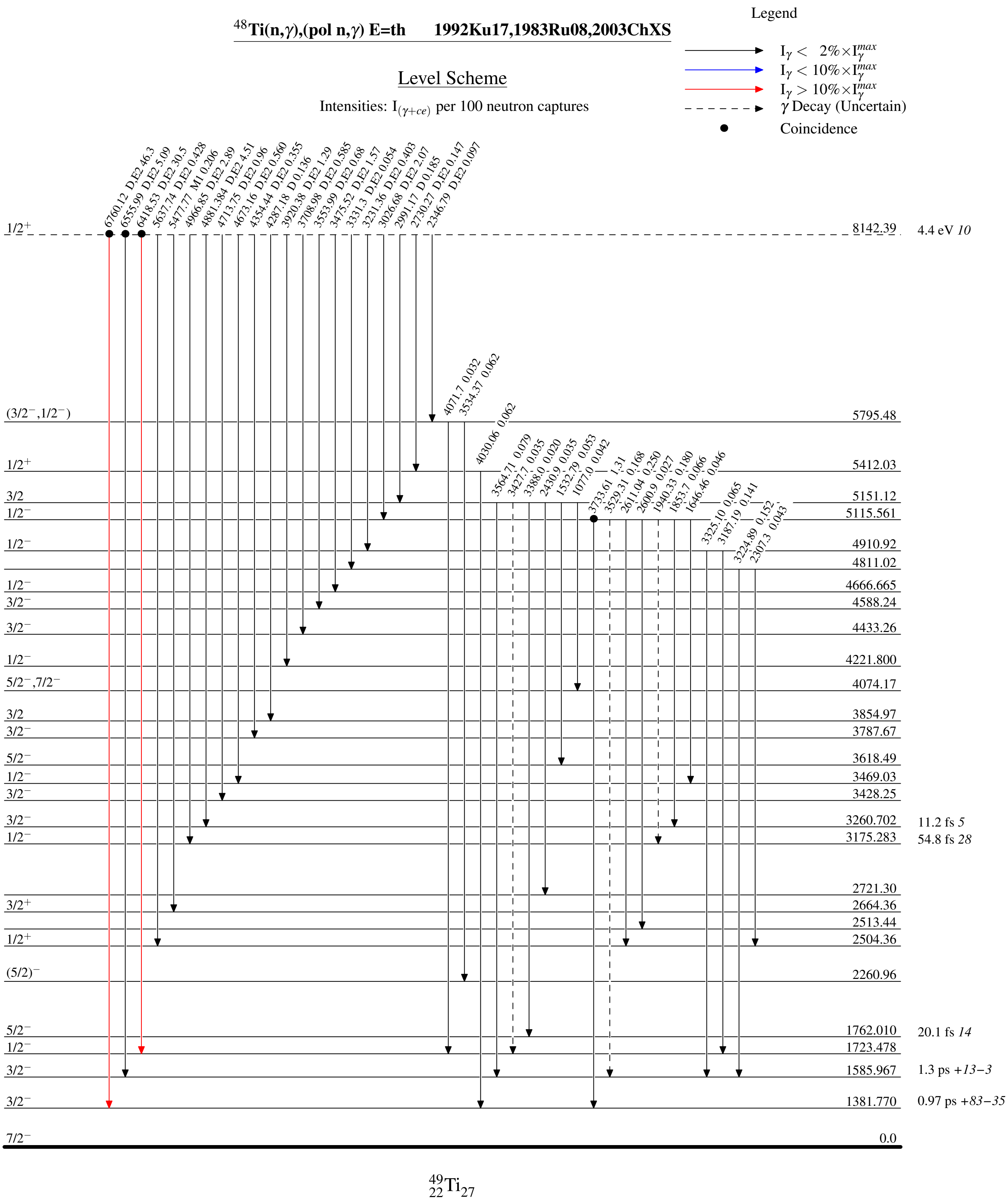
[m] L(d,p)=2 for 2664; primary γ too strong to be E2.

[n] Circular polarization coefficient R=+1.00 assumed as an internal calibration standard.

[o] For intensity per 100 neutron captures, multiply by 1.00 *5*.

[p] Placement of transition in the level scheme is uncertain.

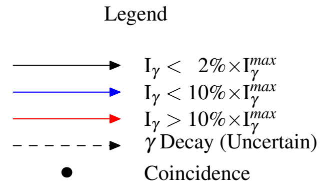
[x] γ ray not placed in level scheme.

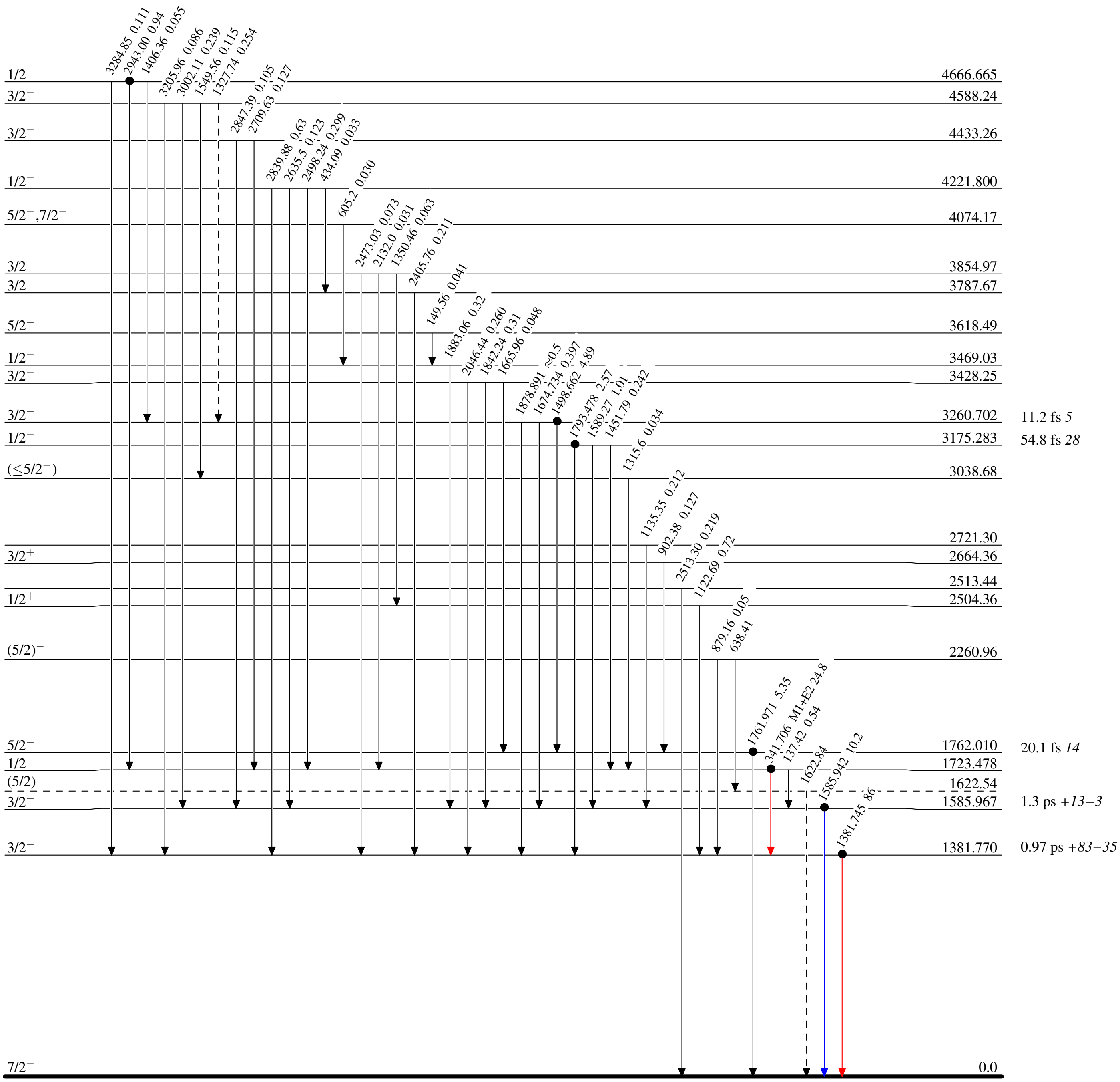

^{48}Ti(n,γ),(pol n,γ) E=th 1992Ku17,1983Ru08,2003ChXS
Level Scheme
Intensities: $I_{(\gamma+ce)}$ per 100 neutron captures
Legend
$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$
γ Decay (Uncertain)
Coincidence
1/2+ 8142.39 4.4 eV 10
(3/2−,1/2−) 5795.48
1/2+ 5412.03
3/2 5151.12
1/2− 5115.561
1/2− 4910.92
4811.02
1/2− 4666.665
3/2− 4588.24
3/2− 4433.26
1/2− 4221.800
5/2−,7/2− 4074.17
3/2 3854.97
3/2− 3787.67
5/2− 3618.49
1/2− 3469.03
3/2− 3428.25
3/2− 3260.702 11.2 fs 5
1/2− 3175.283 54.8 fs 28
2721.30
3/2+ 2664.36
2513.44
1/2+ 2504.36
(5/2)− 2260.96
5/2− 1762.010 20.1 fs 14
1/2− 1723.478
3/2− 1585.967 1.3 ps +13−3
3/2− 1381.770 0.97 ps +83−35
7/2− 0.0
6760.12 D,E2 46.3
6555.99 D,E2 5.09
6418.53 D,E2 30.5
5637.74 D,E2 0.428
5477.77 M1 0.206
4966.85 D,E2 2.89
4881.384 D,E2 4.51
4713.75 D,E2 0.96
4673.16 D,E2 0.560
4354.44 D,E2 0.355
4287.18 D 0.136
3920.38 D,E2 1.29
3708.98 D,E2 0.585
3553.99 D,E2 0.68
3475.52 D,E2 1.57
3331.3 D,E2 0.054
3231.36 D,E2 0.403
3026.68 D,E2 2.07
2991.17 D 0.185
2730.27 D,E2 0.147
2346.79 D,E2 0.097
4071.7 0.032
3534.37 0.062
4030.06 0.062
3564.71 0.079
3427.7 0.035
3388.0 0.020
2430.9 0.035
1532.79 0.053
1077.0 0.042
3733.61 1.31
3529.31 0.168
2611.04 0.250
2600.9 0.027
1940.33 0.180
1853.7 0.066
1646.46 0.046
3325.10 0.065
3187.19 0.141
3224.89 0.152
2307.3 0.043
$^{49}_{22}Ti_{27}$

^{48}Ti(n,γ),(pol n,γ) E=th 1992Ku17,1983Ru08,2003ChXS

Level Scheme (continued)

Intensities: $I_{(\gamma+ce)}$ per 100 neutron captures





$^{49}_{22}Ti_{27}$