Target isotope: $^{40}_{20}$Ca $I^{\pi}_{\circ} = 0^{+}$ *Abundance:* 96.94(16) % $Q_{\alpha} = 5127.10(70)$ keV

$^{44}_{22}$Ti(α)

$E_{\circ}$ [keV]	J^{π}	T	Γ_{α} [keV]	γ^2_{α} [keV]	$S_{\alpha\gamma}$ [eV]	Γ_{γ}/Γ	$S_{\alpha p}$ [eV]	Γ_p/Γ_{γ}	E_{cm} [keV]	E^{*} [keV]	Ref.
2758(20)					0.013(3)				2507	7634(20)	77Co12 90En08
3234(20)					0.022(4)				2940	8067(20)	77Co12 90En08
3511(5)					0.12(2)				3192	8319(5)	77Co12 90En08
3584(5)	2^{+}				0.52(10)				3258	8385(5)	77Co12 90En08
3618(5)	0^{+},1^{-}				0.33(7)				3289	8416(5)	77Co12 90En08
3655(5)	2^{+}				0.28(6)				3323	8450(5)	77Co12 90En08
3723(5)	2^{+}				0.22(4)				3385	8512(5)	77Co12 90En08
3748(5)	2^{+},3^{-}				0.33(7)				3407	8534(5)	77Co12 90En08
3782(5)	2^{+}				0.11(2)				3438	8565(5)	77Di07 90En08
3851(5)	2^{+}				0.08(2)				3501	8628(5)	90En08
3864(5)	2^{+}				0.23(5)				3513	8640(5)	77Co12 77Di07 90En08
3993(5)	2^{+}				0.33(7)				3630	8757(5)	77Co12 77Di07 90En08
4202(3)					0.11(2)				3820	8947(3)	81Di09 90En08
4210(3)	1^{-}				0.22(4)				3827	8954(3)	81Di09 77Di07 90En08
4217(3)	3^{-}				0.40(8)				3834	8961(3)	81Di09 77Di07 90En08
4247(2)	2^{+}				0.30(6)				3861	8988(2)	77Di07 90En08
4252(2)	4^{+}				0.6(1)				3865	8993(2)	77Di07 90En08
4345(5)	$\langle 2^{+} \rangle$		0.3	69					3946	9073(5)	77Di07 84Ch15 90En08
4380(5)	4^{+}		0.1	157					3974	9101(5)	77Di07 84Ch15 90En08
4393(5)	2^{+}		0.9	186					3994	9121(5)	77Di07 84Ch15 90En08
4420(5)	$\langle 0^{+} \rangle$		0.5	36					4014	9141(5)	77Di07 84Ch15 90En08
4464(3)	4^{+}		0.2	315					4059	9186(3)	82Di05 84Ch15
4496(2)	2^{+}	0	0.3	39	0.5(1)		0.0010(6)	0.0021(12)	4087	9214(2)	80Di14 84Ch15 90En08
4511(2)	2^{+}	1			5.8(12)		0.0070(23)	0.0012(3)	4101	9228(2)	80Di14 90En08
4524(2)	2^{+}	0			2.0(4)		0.0032(12)	0.0016(5)	4113	9240(2)	80Di14 90En08 77Di07
4589(2)	2^{+}		0.6	59					4172	9299(2)	77Di07 84Ch15 90En08
4633(2)	0^{+}	2			0.24(5)	0.5(1)	0.35(5)*	<0.04*	4212	9339(2)	77Di07 90En08
4645(15)	4^{+}		0.2	122					4223	9350(15)	84Ch15
4658(3)	3^{-}		0.5	88	1.2(3)				4235	9362(3)	77Di07 84Ch15 90En08
4688(5)									4262	9389(5)	77Di07 90En08
4740(5)	4^{+}		0.2	88	0.9(3)				4301	9428(5)	77Di07 84Ch15 90En08
4787(5)	3^{-}		0.5	61					4352	9479(5)	77Di07 84Ch15 90En08
4811(10)	2^{+}		0.8	38					4374	9501(10)	77Di07 84Ch15 90En08
4857(5)	0^{+}		1.5	27					4415	9543(5)	77Di07 84Ch15 90En08
4909(5)									4463	9590(5)	77Di07 90En08
4956(10)	2^{+}		0.5	16					4505	9633(10)	77Di07 84Ch15 90En08
4996(10)	0^{+}		1.5	20					4542	9669(10)	77Di07 84Ch15 90En08
5029(5)	2^{+}								4572	9699(5)	77Di07 90En08
5045(3)	$\langle 4^{+} \rangle$				2.5(5)				4586	9713(3)	77Di07 90En08
5072(5)	$\langle 2^{+} \rangle$		0.2	5					4611	9738(5)	77Di07 84Ch15 90En08
5140(15)	0^{+}		1.0	10					4673	9800(15)	84Ch15
5190(15)	3^{-}		0.5	20					4718	9845(15)	84Ch15
5221(10)	3^{-}		0.4	15					4746	9873(10)	77Di07 84Ch15 90En08
5246(5)	$\langle 0^{+} \rangle$		0.5	4					4769	9896(5)	77Di07 84Ch15 90En08
5260(3)	$\langle 0^{+} \rangle$		1.5	11	1.9(4)				4782	9909(3)	77Di07 84Ch15 90En08

(continued)

$^{44}_{22}\mathbf{Ti}(\alpha)$

$E_\circ$ [keV]	J^π	T	Γ_α [keV]	γ_α^2 [keV]	$S_{\alpha\gamma}$ [eV]	Γ_γ/Γ	$S_{\alpha p}$ [eV]	Γ_p/Γ_γ	E_{cm} [keV]	E^* [keV]	Ref.
5305(15)	0^+		1.5	10					4823	9950(15)	84Ch15
5335(15)	0^+		2.0	12					4850	9977(15)	84Ch15
5370(15)	2^+		1.0	12					4882	10009(15)	84Ch15
5377(10)	2^+		1.0	11					4888	10015(10)	77Di07 84Ch15 90En08
5412(10)	0^+		2.0	10					4920	10047(10)	77Di07 84Ch15 90En08
5503(5)	$\langle 3^- \rangle$		0.5	10					5003	10130(5)	77Di07 84Ch15 90En08
5544(10)	$\langle 0^+ \rangle$		1.0	4					5040	10167(10)	77Di07 84Ch15 90En08
5591(5)	$\langle 2^+ \rangle$		0.5	4					5083	10210(5)	77Di07 84Ch15 90En08 90Ya09
5645(10)									5132	10259(10)	77Di07 90En08
5695(5)									5177	10304(5)	77Di07 90En08
5721(5)									5201	10328(5)	77Di07 90En08
5786(6)	$2^+,3^-$				5(1)				5260	10387(6)	77Di07 90En08
5868(10)									5335	10462(10)	77Di07 90En08
5933(10)									5394	10521(10)	77Di07 90En08
7260	1^-		31						6600	11727	76Fr08
8250	1^-					$\gamma_o\gamma_1$			7500	12627	74Pe13
8850	1^-					$\gamma_o\gamma_1$			8045	13173	74Pe13
10100	$\langle 3^- \rangle$					γ_1			9182	14309	74Pe13
10600	1^-					$\gamma_o\gamma_1$			9636	14763	74Pe13
11500	X^-					γ_{3+4}			10455	15582	74Pe13
11500	$\langle 3^- \rangle$					$\gamma_1\gamma_{3+4}$			10455	15582	74Pe13

Additional data on this isotope can be found in [02BeZZ, 02KaZV, 96Ya01, 90Ya03, 83Fr03, 80Di14, 78Di11, 71ChXS, 71ViZY, 63La04].

* $\Gamma_{\alpha_\circ}/\Gamma$ and Γ_p/Γ instead of $S_{\alpha p}=(2J+1)\Gamma_\alpha\Gamma_p/\Gamma$ and Γ_p/Γ, respectively

For resonances in the triplet at 4.51 MeV relative spacing were discussed in [80Di14] (but absolute $E_\circ$ are given approximately).

For the resonance at $E_\circ$=7260 keV Γ=51 keV [76Fr08].

Branching ratios of γ-transitions [80Di14, 81Di09, 90En08, 98En04]. Part 1.

$^{44}_{22}\mathbf{Ti}(\alpha)$

E^* [keV]	J^π	T	$E_\circ$ [keV]	$S_{\alpha\gamma}$	Branching ratios (Percentage)								Ref.
E^*					0.0	1083	1904	2454	2531	2886	3176	3364	
J_f^π					0^+	2^+	0^+	4^+	2^+	2^+	3^-	4^+	
0.0	0^+	0		0.04									
1083.04(7)	2^+	0		0.03	100								
1904.3(4)	0^+			<0.01		100							
2454.34(9)	4^+	0		0.03		100							
2530.97(14)	2^+	0		0.02	25(5)	71(5)	3.7(5)						
2886.6(4)	2^+			0.002	59(19)	38(10)	3(2)						

(continued)

$^{44}_{22}$Ti(α)

E^* [keV]	J^π	T	$E_\circ$ [keV]	$S_{\alpha\gamma}$	Branching ratios Percentage								Ref.
E^* J^π_f					0.0 0^+	1083 2^+	1904 0^+	2454 4^+	2531 2^+	2886 2^+	3176 3^-	3364 4^+	
3175.8(3)	3^-			0.002	1.0(5)	97(2)		2(1)	<1				
3364(1)	4^+			0.03		96(2)			5(2)				
3415.3(3)	2,3					97.8(5)			<1.5	2.2(5)			
3645.8(3)	4^-					<1		4(2)			96(2)		
3755.9(4)	1^-			0.005	72(5)	28(5)	<4						
3942.7(3)	3^-			0.005		95(2)		5(2)	<2		<2		
3980(1)	4^+					52(8)		15(5)		25(5)	4(3)		
4015.31(15)	6^+	0		0.03				100					
4061.2(5)	3^-,5^-					<2		50(5)			50(5)		
4115.6(5)	2^+	0		0.007	31(5)	47(7)			22(5)	<10			
4227(1)						6(3)			17(4)	29(4)	34(4)		
4499.9(6)	⟨6^+⟩												
4605(5)	0^+												
4792.2(5)						88(3)				3(2)	5(2)		
4803.1(4)	⟨6^+⟩	0						30(8)	70*				98En04
4840(10)	0^+			0.02									
5055(5)	3^-												
5152.4(6)	⟨6^-⟩												
5305(2)	5^-			0.009		x							
5421(5)	3^-			0.01		x							
5670.2(6)	⟨7^-⟩												
6030**	2^+			0.04									
6220**	1^-			0.04									
6508.5(3)	⟨8^+⟩			0.04									
6572.4(7)	⟨8^+⟩												
6606.4(5)	2^+	1				74(6)			26(6)				98En04
6848.84(22)	⟨6^+⟩	1		⟨0.02⟩									98En04
6923.9(8)	⟨8^-⟩												
6959(6)	4^+	1											
7216(2)	1^+	1			96(1)	1.0(5)	3(1)						
7340**	3^-			0.03									
7408.5(8)	⟨9^-⟩												
7560**	⟨3^-⟩			0.02									
7634(5)													
7671.1(4)	⟨10^+⟩			0.006	62(20)		38(20)						
8039.9(4)	⟨12^+⟩			0.002									
8067(5)					100								
8170**	⟨1^-⟩			0.015									
8318(5)						54(10)				46(10)			
8385(5)	2^+			0.03	30(10)	20(10)				50(10)			
8416(5)	0^+,1^-					100							
8449(5)	2^+,3^-			0.002		79(10)		21(10)					

(continued) ${}^{44}_{22}\mathbf{Ti}(\alpha)$

E^* [keV]	J^π	T	$E_\circ$ [keV]	$S_{\alpha\gamma}$	Branching ratios Percentage								Ref.
E^*					0.0	1083	1904	2454	2531	2886	3176	3364	
J^π_f					0^+	2^+	0^+	4^+	2^+	2^+	3^-	4^+	
8511(5)	2^+					100							
8534(5)	2^+,3^-			0.003		100							
8565(5)	2^+					62(10)			18(10)			20(10)	
8627(6)	2^+					100							
8639(6)	2^+				25(10)	75(10)							
8756(5)	$\langle 2^+ \rangle$				25(5)	70(5)							
8861.6(9)	$\langle 10^- \rangle$												
8947(3)			4202			52(7)			48(7)				
8954(3)	1^-		4210		5(1)		66(3)			16(2)			81Di09
8960(3)	2^+,3^-		4217	0.06				9.7(10)			25.7(15)	5.3(10)	81Di09
8987(2)	2^+												
8992(2)	4^+			0.02									
9180(5)				0.02									
9215(2)	2^+		4496		10(1)	16(2)	2(1)		41(2)	11(2)			80Di14
9227(2)	2^+		4511		0.6(2)	23(3)	<1		45(2)	8(2)			80Di14
9239(2)	2^+		4524		4.0(5)	27(2)	5(1)		28(2)	11(2)			80Di14
9298(2)	0^+	1+2											
9338(2)	0^+	1+2			<1	<0.2							
9427(5)	5^-			0.03									
9589(5)	5^-			0.003									
10860**	$\langle 0^+ \rangle$			0.25									

* transition to the unknown state
** energy level from [90Ya09]

Branching ratios of γ-transitions [80Di14, 81Di09, 90En08, 98En04]. Part 2. ${}^{44}_{22}\mathbf{Ti}(\alpha)$

E^* [keV]	J^π	$E_\circ$ [keV]	Branching ratios Percentage											Ref.
E^*			3415	3646	3756	3943	4015	4061	4227	4803	6510	7220	7670	
J^π_f			2,3	4^-	1^-	3^-	6^+			$\langle 6^+ \rangle$	$\langle 8^+ \rangle$	1^+	$\langle 10^+ \rangle$	
3980	4^+		4(2)											
4227			5(3)	9(4)										
4792.2					4(2)									
6508.5	$\langle 8^+ \rangle$						100							
6848.84	$\langle 6^+ \rangle$						80(2)			20(2)				98En04
7671.1	$\langle 10^+ \rangle$										100			
8039.9	$\langle 12^+ \rangle$												100	

(continued) **$^{44}_{22}$Ti**(α)

E^* [keV]	J^π	$E_\circ$ [keV]	Branching ratios Percentage											Ref.
E^*			3415	3646	3756	3943	4015	4061	4227	4803	6510	7220	7670	
J^π_f			2,3	4^-	1^-	3^-	6^+			$\langle 6^+\rangle$	$\langle 8^+\rangle$	1^+	$\langle 10^+\rangle$	
8756	$\langle 2^+\rangle$		5											
8954	1^-	4210							13(3)					81Di09
8960	2^+,3^-	4217		44.1(15)	2.9(15)	8.4(15)		3.9(15)						81Di09
9215	2^+	4496	20(2)											80Di14
9227	2^+	4511	23(2)											80Di14
9239	2^+	4524	25(2)											80Di14
9298	0^+				59(8)							41(8)		
9338	0^+				2.4(6)							97.6(6)		

Target isotope: $^{45}_{21}$Sc $I^\pi_\circ = 7/2^-$ *Abundance:* 100 % $S_\mathrm{p} = 10344.97(66)$ keV **$^{46}_{22}$Ti**(p)

$E_\circ$ [keV]	Rel.int. γ_i	E_cm [keV]	E^* [keV]	Ref.
874.6(10)	130	855.6	11200.6	63Du07
880.3(10)	350	861.2	11206.1	63Du07
883.6(10)	160	864.4	11209.4	63Du07
885.7(10)	200	866.4	11211.4	63Du07
890.8(10)	35	871.4	11216.4	63Du07
896.2(10)	570	876.7	11221.7	63Du07
904.4(10)	100	884.7	11229.7	63Du07
911.1(10)	170	891.3	11236.3	63Du07
917.4(10)	1400	897.5	11242.4	63Du07
923.6(10)	350	903.5	11248.5	63Du07
929.7(10)	470	909.5	11254.5	63Du07
934.8(10)	440	914.5	11259.4	63Du07
937.1(10)	130	916.7	11261.7	63Du07
941.8(10)	350	921.3	11266.3	63Du07
943.4(10)	110	922.9	11267.9	63Du07
946.4(10)	160	925.8	11270.8	63Du07
949.1(10)	160	928.5	11273.4	63Du07
953.8(10)	140	933.1	11278.0	63Du07
956.5(10)	150	935.7	11280.7	63Du07
961.2(10)	250	940.3	11285.3	63Du07
963.3(10)	130	942.4	11287.3	63Du07
968.7(10)	230	947.6	11292.6	63Du07
970.2(10)	70	949.1	11294.1	63Du07
976.2(10)	60	955.0	11299.9	63Du07
980.5(10)	450	959.2	11304.2	63Du07

(continued) $^{46}_{22}$**Ti**(p)

$E_\circ$ [keV]	Rel.int. γ_i	E_{cm} [keV]	E^* [keV]	Ref.
983.8(10)	100	962.4	11307.4	63Du07
986.6(10)	220	965.2	11310.1	63Du07
989.9(10)	210	968.4	11313.4	63Du07
996.2(10)	460	974.5	11319.5	63Du07
1003.8(10)	240	982.0	11326.9	63Du07
1010.1(10)	600	988.1	11333.1	63Du07
1012.0(10)	470	990.0	11335.0	63Du07
1018.2(10)	530	996.1	11341.0	63Du07
1022.8(10)	250	1000.6	11345.5	63Du07
1024.2(10)	310	1001.9	11346.9	63Du07
1026.0(10)	1350	1004.0	11348.7	87Mo17
1031.1(10)	820	1008.7	11353.7	63Du07
1037.2(10)	180	1014.7	11359.6	63Du07
1041.1(10)	180	1018.5	11363.4	63Du07
1044.3(10)	210	1021.6	11366.6	63Du07
1049.7(10)	1900	1026.9	11371.9	87Mo17
1053.6(10)	350	1030.7	11375.7	63Du07
1055.1(10)	340	1032.2	11377.1	63Du07
1059.4(10)	1700	1036.4	11381.3	63Du07
1063.8(10)	270	1040.7	11385.6	63Du07
1066.3(10)	1100	1043.1	11388.1	63Du07
1070.3(10)	180	1047.0	11392.0	63Du07
1074.1(10)	620	1050.8	11395.7	63Du07
1076.0(10)	2000	1053.0	11397.6	63Du07
1079.1(10)	180	1055.6	11400.6	63Du07
1088.1(10)	970	1064.4	11409.4	63Du07
1092.4(10)	1200	1068.7	11413.6	63Du07
1098.6(10)	400	1074.7	11419.7	63Du07
1108.0(10)	330	1084.0	11428.9	63Du07
1111.2(10)	740	1087.0	11432.0	63Du07
1116.7(10)	530	1092.4	11437.4	63Du07
1123.1(10)	290	1098.7	11443.7	63Du07
1127.6(10)	130	1103.1	11448.1	63Du07
1130.6(10)	1300	1106.0	11451.0	63Du07
1135.0(10)	510	1110.0	11455.3	63Du07
1138.3(10)	220	1113.6	11458.5	63Du07
1140.8(10)	530	1116.0	11461.0	63Du07
1145.2(10)	600	1120.3	11465.3	63Du07
1148.6(10)	730	1123.6	11468.6	63Du07
1154.0(10)	350	1129.0	11473.9	63Du07
1158.7(10)	1000	1133.5	11478.5	63Du07
1162.3(10)	280	1137.0	11482.0	63Du07
1164.6(10)	550	1139.3	11484.3	63Du07
1172.2(10)	350	1146.7	11491.7	63Du07
1173.6(10)	390	1148.1	11493.1	63Du07

(continued) $^{46}_{22}$**Ti**(p)

$E_\circ$ [keV]	Rel.int. γ_i	E_{cm} [keV]	E^* [keV]	Ref.
1177.8(10)	470	1152.2	11497.2	63Du07
1183.3(10)	130	1157.6	11502.5	63Du07
1185.5(10)	850	1159.7	11504.7	63Du07
1189.2(10)	560	1163.3	11508.3	63Du07
1192.9(10)	560	1167.0	11511.9	63Du07
1199.7(10)	470	1173.6	11518.6	63Du07
1201.3(10)	710	1175.2	11520.2	63Du07
1202.9(10)	770	1176.7	11521.7	63Du07
1207.0(10)	1400	1181.0	11525.7	63Du07
1212.4(10)	890	1186.0	11531.0	63Du07
1214.8(10)	1600	1188.4	11533.4	63Du07
1220.4(10)	450	1193.9	11538.8	63Du07
1224.7(10)	890	1198.1	11543.0	63Du07
1227.6(10)	400	1200.9	11545.9	63Du07
1230.7(10)	780	1203.9	11548.9	63Du07
1235.0(10)	810	1208.0	11553.1	63Du07
1240.9(10)	470	1213.9	11558.9	63Du07
1243.7(10)	920	1216.7	11561.6	63Du07
1248.6(10)	1300	1221.5	11566.4	63Du07
1252.4(10)	480	1225.2	11570.1	63Du07
1257.5(10)	2500	1230.2	11575.1	63Du07
1259.8(10)	900	1232.4	11577.4	63Du07
1262.7(10)	860	1235.3	11580.2	63Du07
1264.4(10)	740	1236.9	11581.9	63Du07
1268.1(10)	530	1240.5	11585.5	63Du07
1272.2(10)	850	1244.5	11589.5	63Du07
1274.0(10)	930	1246.0	11591.3	63Du07
1275.8(10)	270	1248.1	11593.0	63Du07
1277.7(10)	670	1249.9	11594.9	63Du07
1280.8(10)	1200	1253.0	11597.9	63Du07
1286.9(10)	360	1258.9	11603.9	63Du07
1291.1(10)	100	1263.0	11608.0	63Du07
1294.0(10)	540	1266.0	11610.8	63Du07
1298.4(10)	1400	1270.2	11615.1	63Du07
1301.3(10)	720	1273.0	11618.0	63Du07
1306.3(10)	890	1277.9	11622.9	63Du07
1309.2(10)	960	1280.7	11625.7	63Du07
1312.9(10)	1000	1284.4	11629.3	63Du07
1316.5(10)	320	1287.9	11632.9	63Du07
1319.5(10)	510	1290.8	11635.8	63Du07
1321.5(10)	1500	1292.8	11637.7	63Du07
1327.1(10)	660	1298.3	11643.2	63Du07
1330.1(10)	900	1301.2	11646.2	63Du07
1332.5(10)	840	1303.5	11648.5	63Du07
1335.1(10)	860	1306.1	11651.0	63Du07

(continued) $^{46}_{22}$**Ti**(p)

$E_\circ$ [keV]	Rel.int. γ_i	E_{cm} [keV]	E^* [keV]	Ref.
1339.5(10)	880	1310.4	11655.4	63Du07
1341.9(10)	900	1312.7	11657.7	63Du07
1347.3(10)	840	1318.0	11663.0	63Du07
1348.2(10)	800	1318.9	11663.9	63Du07
1350.9(10)	1050	1321.5	11666.5	63Du07
1353.7(10)	500	1324.3	11669.2	63Du07
1358.5(10)	1050	1329.0	11673.9	63Du07
1362.2(10)	440	1332.6	11677.6	63Du07
1365.1(10)	1250	1335.4	11680.4	63Du07
1372.9(10)	1150	1343.1	11688.0	63Du07
1375.0(10)	500	1345.0	11690.1	63Du07
1376.7(10)	4700	1346.8	11691.7	87Mo17
1382.9(10)	2400	1352.8	11697.8	63Du07
1387.4(10)	1350	1357.2	11702.2	63Du07
1391.9(10)	1850	1361.6	11706.6	63Du07
1396.7(10)	2350	1366.3	11711.3	63Du07
1401.5(10)	1050	1371.0	11716.0	63Du07
1415(5)		1384	11729	63Er01
1430(5)		1399	11744	63Er01
1485(5)		1453	11798	63Er01
1505(5)		1472	11817	63Er01
1520(5)		1487	11832	63Er01
1540(5)		1507	11852	63Er01
1575(5)		1541	11886	63Er01
1590(5)		1555	11900	63Er01
1635(5)		1599	11944	63Er01
1660(5)		1624	11969	63Er01
1715(5)		1678	12023	63Er01
1765(5)		1727	12072	63Er01
1795(5)		1756	12101	63Er01
1825(5)		1785	12130	63Er01
1845(5)		1805	12150	63Er01
1885(5)		1844	12189	63Er01
1910(5)		1868	12213	63Er01
1960(5)		1917	12262	63Er01
2010(5)		1966	12311	63Er01
2030(5)		1986	12331	63Er01
2060(5)		2015	12360	63Er01
2075(5)		2030	12375	63Er01
2105(5)		2059	12404	63Er01
2180(5)		2133	12478	63Er01
2215(5)		2167	12512	63Er01
2240(5)		2191	12536	63Er01
2265(5)		2216	12561	63Er01
2315(5)		2265	12610	63Er01

(continued) $^{46}_{22}$**Ti**(p)

$E_\circ$ [keV]	Rel.int. γ_i	E_{cm} [keV]	E^* [keV]	Ref.
2335(5)		2284	12629	63Er01
2350(5)		2299	12644	63Er01
2390(5)		2338	12683	63Er01
2415(5)		2362	12708	63Er01
2440(5)		2387	12732	63Er01
2475(5)		2421	12766	63Er01

Additional data on this isotope can be found in [00Wu08, 87Mo17, 85FeZX, 78So09, 68Er04, 66Ri11, 62Er06, 62Ma52].
Given intensities are relative to the thick target yield from the 992 keV resonance in ^{27}Al(p,γ)^{28}Si reaction, measured under the same conditions and set to 10000 units.

Branching ratios of γ-transitions [68Er04, 87Mo17]. Part 1 $^{46}_{22}$**Ti**(p)

$E_\circ$ [keV]	J^π	T	$E_\circ$ [keV]	Branching ratios Percentage									
E^*				0.0	889	2010	2962	3058	3168	3236	3299	3441	3569**
J_f^π				0^+	2^+	4^+	2^+		1^-	2^+	6^+		
889.286(3)	2^+			100									
2009.856	4^+				100								
2611.0(2)	0^+												
2961.8(2)	2^+					100							
3058.4(1)	3^-												
3168.0(1)	1^-			43	57								
3213													
3217.3													
3235.7(2)	2^+			30	70								
3298.8(2)	6^+					100							
3571.7(2)	0^+					100							
3723.8(4)	$\langle 2\rangle^+$				83	17							
3852.4(2)	5^-					⟨100⟩							
3905.6(3)	$1,2^+$				x								
4697	$\langle 2^+\rangle$				100								
4827.2(22)	3^-					7			20	73			
5023.7(12)	3^-												
5530(4)	3^-								100				
5794(4)	4^+												100
5950(4)	3^-									100			
11354(3)	3		1026		36	7.4	7.4	1.5	6.0			4.0	1.0*
11372(3)			1047		2.3	5.1					33.9	7.3	
11426(19)													

(continued) $^{46}_{22}$**Ti**(p)

$E_\circ$ [keV]	J^π	T	$E_\circ$ [keV]	Branching ratios Percentage									
E^*				0.0	889	2010	2962	3058	3168	3236	3299	3441	3569**
J_f^π				0^+	2^+	4^+	2^+		1^-	2^+	6^+		
11698(3)	⟨2,3⟩		1377		29.7(10)	16.3(10)	5.8(5)	4.3(5)		4.2(5)		4.7(5)	4.3(4)
11973**			1660		19.1(10)	23.4(10)	3.4(4)	3.4(4)				2.7(3)	4.7(5)

* Triplet of levels not resolved in [87Mo17] and [68Er04] (sum of intensities).
** Level introduced in [68Er04].

Branching ratios of γ-transitions. Part 2. $^{46}_{22}$**Ti**(p)

E^* [keV]	J^π	T	$E_\circ$ [keV]	Branching ratios Percentage											
E^*				3724	3827	3857	3950	4039	4049	4137	4196	4424	4515	4697	4827
J_f^π				$\langle 2\rangle^+$										$\langle 2^+\rangle$	
11354(3)	3		1026	10				2.5						17	4.5
11374.2(23)			1047	7.3		7.3							15.5*	1.7	
11426(19)															
11698(3)	⟨2,3⟩		1377	6.5(5)	4.1(4)		3.8(4)	2.7(4)							2.4(2)
11973**			1660	7.7(5)	6.0(5)		2.7(3)	5.0(4)		1.3(3)	2.7(3)	2.0(3)	2.0(3)		2.0(3)
14153(6)	0^+														

* Transition to the suggested levels at 4530 keV [87Mo17] and 6083 keV [68Er04].
** Level introduced in [68Er04].

Branching ratios of γ-transitions. Part 3. $^{46}_{22}$**Ti**(p)

$E_\circ$ [keV]	J^π	T	$E_\circ$ [keV]	Branching ratios Percentage												Com.
				4982	5027	5078	5178	5309	5529	5792	5950	6062	6266	6398	6525	E^*, keV
														1^+		J_f^π
11354(3)	3		1026	2.0	4.5											87Mo17
1374.2(23)			1047		2.8							13.6				87M017
11426(19)																
11698(3)	⟨2,3⟩		1377		3.8(3)	sum	1.7(3)	1.5(3)	2.4(1)	1.5(2)	0.8(2)				1.0(2)	68Er04

(continued)

$^{46}_{22}$Ti(p)

$E_\circ$ [keV]	J^π	T	$E_\circ$ [keV]	Branching ratios Percentage												Com.
				4982	5027	5078	5178	5309	5529	5792	5950	6062	6266	6398 1^+	6525	E^*, keV J^π_f
11973**			1660		1.3(2)	sum	1.3(2)	<0.1	1.3(2)			1.7(3)*			1.3(3)	68Er04
14153(6)	0^+															68Er04

* Transition to the suggested levels at 4530 keV [87Mo17] and 6083 keV [68Er04].
** Level introduced in [68Er04].