^{159}Tb(d,p) 1967St14

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 176, 1 (2021)	1-May-2021

E(d)=12 MeV. Magnetic spectrograph; oxide targets; measured proton spectra in nuclear-emulsion plates at θ=35°, 45°, 60° and 65°. FWHM=0.1% is quoted in earlier work of the authors and is consistent with data shown in fig. 2 of the present work.
Others: 1968Tr03, 1970Si22.
J^π(^{159}Tb)=3/2$^+$; configuration=3/2$^+$[411].

^{160}Tb Levels

E(level)	dσ/dΩ(μb/sr)†	E(level)	dσ/dΩ(μb/sr)†	E(level)	dσ/dΩ(μb/sr)†
0.0	175	558 *2*	28	915 *2*	33
19‡ *1*	9	570 *2*	112	938 *1*	60
63 *2*	79	600 *2*	137	956 *2*	39
79 *2*	170	621 *2*	63	975 *3*	33
101 *2*	26	642 *2*	53	1001 *2*	222
136 *3*	140	662 *3*	49	1020 *2*	126
178 *2*	158	685 *3*	142	1048 *3*	49
201 *2*	56	709 *3*	25	1060 *3*	35
237 *2*	152	728 *2*	165	1075 *2*	133
258 *2*	137	743 *1*	23	1086 *2*	172
279 *2*	224	767 *3*	145	1100 *3*	32
305 *3*	21	785 *1*	110	1114 *2*	280
323 *1*	42	798 *2*	14	1129 *2*	130
354 *2*	182	821 *3*	42	1150 *2*	140
381 *2*	193	834 *2*	23	1166 *2*	93
422 *2*	149	846 *2*	61	1184 *2*	112
482 *2*	317	860 *2*	95	1198 *2*	166
515 *1*	480	878 *3*	77		
533 *1*	247	903 *2*	86		

† For θ=45°. 1967St14 report only relative intensities. The values listed here are those given by 1967St14, multiplied by a factor of 175. With this normalization, the sum of the (d,p) cross sections feeding the ground-state band is equal to that calculated using a DWBA code with spectroscopic factors derived from Nilsson-model wave functions (1974Ke01).
‡ The existence of this level is not confirmed in the (n,γ) study of 1974Ke01.