

$^{123}\text{Te}(^3\text{He}, ^4\text{He})$ **1999Sc19**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. Tamura	NDS 108, 455 (2007)	30-Sep-2006

$J^\pi(^{123}\text{Te}=1/2^+)$.

1999Sc19: E(d)=32 MeV; broad-range magnetic spectrograph, enriched target 70.4%, measured triton energy spectra at $\theta=20^\circ$, 25° and 50° ; discussed in terms of IBM model and quasi-phonon model.

 ^{122}Te Levels

Cross sections $\sigma(\theta)$ ($\mu\text{b/sr}$) for 20° and 25° and 50° are listed in level comments. Additional notes in **1999Sc19** are included in level comments.

E(level) [†]	Comments
0.0	I(20°)=2.8 8, I(25°)=2.8 6.
563.5 15	I(20°)=7.8 12, I(25°)=8.1 10, I(50°)=1.0 6.
1183.8 17	I(20°)=0.9 5, I(25°)=1.6 4.
1257.7 10	I(20°)=6.3 9, I(25°)=4.4 7.
1750 4	I(20°)=1.0 5, I(25°)=0.9 4 (sum for 1747.0+1751.3+1752.6 levels at 20° and 25°).
1910.0 10	I(20°)=12.5 14, I(25°)=11.3 10.
1953.5 18	I(20°)=3.3 10, I(25°)=6.8 12 (admixture of other isotopes at 20° and 25°).
2098.2 27	I(20°)=1.8 8, I(25°)=2.5 7.
2195.7 10	I(20°)=5.2 9, I(25°)=5.3 9.
2307 4	I(20°)=11.7 19, I(25°)=8.5 12, I(50°)=2.2 6 (sum for 2297.5+2310.8 levels at 20° , 25° and 50°).
2407.6 4	I(20°)=273 7, I(25°)=196 5, I(50°)=6.8 9.
2448.4 4	I(20°)=48.6 26, I(25°)=37.5 20, I(50°)=1.8 6.
2475.6 10	I(20°)=29.9 20, I(25°)=22.3 16.
2503.9 10	I(20°)=6.4 12, I(25°)=4.4 10 (sum for 2499.5+2508.3 levels at 20° and 25°).
2539.2 30	I(20°)=11.2 15, I(25°)=8.3 11.
2601.7 5	I(20°)=29.1 23, I(25°)=26.9 22, I(50°)=1.9 6.
2670.5 27	I(20°)=8.5 16, I(25°)=8.4 15, I(50°)=1.2 6 (admixture of other isotopes at 50°).
2695.5 10	I(20°)=14.6 18, I(25°)=14.3 18 (probably main intensity from isotopes at 20° and 25°).
2720.3 10	I(20°)=6.8 18, I(25°)=7.6 15.
2742.1 23	I(20°)=142 14, I(25°)=105 5, I(50°)=4.2 8 (admixture of other isotopes at 20° , 25° and 50°).
2758.4 4	I(20°)=297 8, I(25°)=236 7, I(50°)=6.4 9.
2774.3 23	I(20°)=55 5, I(25°)=38 5 (admixture of other isotopes at 20° and 25°).
2800.5 13	I(20°)=6.0 16, I(25°)=3.1 12.
2840.9? 13	I(20°)=5.2 17, I(25°)=6.7 15.
2859.9 5	I(20°)=127 7, I(25°)=105 5, I(50°)=3.6 7.
2901.8 18	I(20°)=58 4, I(25°)=52.3 30, I(50°)=1.2 6.
2919.4 7	I(20°)=18.4 25, I(25°)=21.5 22.
2946.2? 10	I(20°)=12 4, I(25°)=8.6 27.
2962.2 5	I(20°)=296 23, I(25°)=266 7, I(50°)=9.1 10.
2983.9 22	I(20°)=57 7, I(25°)=53 4 (admixture of other isotopes at 20° and 25°).
2994.7 23	I(20°)=62 8, I(25°)=66 4, I(50°)=2.9 7.
3039.7 7	I(20°)=13.8 22 (doublet), I(25°)=13.5 19 (doublet) (sum for 3037.1+3044.7 levels at 20° and 25°).
3074.3 11	I(20°)=10.5 19, I(25°)=6.3 16 (probably main intensity from other isotopes at 20° and 25°).
3104.9 20	I(20°)=29.6 26, I(25°)=19.4 22, I(50°)=1.5 7.
3149.1 5	I(20°)=40 4, I(25°)=33 4, I(50°)=1.5? 7.
3162.4 27	I(20°)=85 5, I(25°)=65 5 (probably main intensity from other isotopes at 20° and 25°).
3183.0 18	I(25°)=7.9 19.
3211.7 19	I(20°)=41 4 (doublet), I(25°)=39.8 30 (doublet), I(50°)=1.6 7 (doublet); sum for 3211.1+3216 levels at 20° , 25° and 50°).
3247.8 10	I(20°)=17.6 24, I(25°)=18.0 24, I(50°)=9 7.
3292.7 6	I(20°)=39 6, I(25°)=41 5.
3308.6 11	I(20°)=43 6, I(25°)=37 5 (probably main intensity from other isotopes at 20° and 25°).

[†] From **1999Sc19**.