

$^{137}\text{Ba}(\text{d,p})$ **1971VoZV,1967Mo15**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 146, 1 (2017)	30-Sep-2017

$J^\pi(^{137}\text{Ba g.s.})=3/2^+$.

1971VoZV,1967Mo15: E=12 MeV deuterons were produced from the Argonne National Laboratory accelerator. Scattered particles were analyzed with a magnetic spectrograph. Measured $\sigma(E_p, \theta)$. Deduced levels, L-transfer, spectroscopic factors from DWBA analysis.

 ^{138}Ba Levels

All data are from **1971VoZV**.

E(level) [†]	L	S	E(level) [†]	L	S	E(level) [†]	L	S
0.0	2	0.77	3857	3	1.67	4447	1	0.08
1435	0	0.074	3921	1	0.36	4536	1	0.04
2878	3	0.08	4027	(1)	≈0.02	4564	1	0.09
≈2900			4080	1	0.28	4586	1	≈0.15
≈3340			4141	3	0.07	4648	1	≈0.22
3507	3	0.04	4165	3	0.17	4709	1	0.03
3534	3	0.22	4240			4745	1	0.21
3561	3	1.74	4279	1	0.29	4797	1+3	≈0.15+0.19
3645	3	1.25	4325	1	0.20	4870	1+3	≈0.08+0.15

[†] The level energies of **1971VoZV** were lowered by 7 keV for E>2885 to adjust the authors' values to those from ^{138}Cs β^- decay and $^{137}\text{Ba}(\text{n},\gamma)$.