^{138}Ba(pol p,p),(pol p,p′):IAR 1989Ny02,1977Cl02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	P. K. Joshi, B. Singh, S. Singh, A. K. Jain	NDS 138, 1 (2016)	15-Oct-2016

E=9.4-12.4 MeV.

1977Cl02 measured $\sigma(\theta)$, A(θ), and excitation functions; polarization ≤70%, surface barrier detectors, θ=40°, 60°, 90°, 120°, 140°, 160°. Resonance analysis.

1989Ny02 measured $\sigma(\theta)$, A(θ), and excitation functions; eight Si surface barrier detectors at θ=130°, 140°, 160°, 170° mounted symmetrically left and right of the beam axis. FWHM≈45 keV. Resonance analysis.

Others: 1987Sp01, 1985Do18, 1976Da19, 1970Wi18, 1970Se02, 1968Ve07, 1965Vo03.

All data are from 1989Ny02. There is generally good agreement between 1989Ny02 and 1977Cl02, except as noted.

^{139}La Levels

Average spreading width ($\Gamma^{\downarrow}$)=47 keV *2*.

E(level)[†]	J^{π}[‡]	Γ[‡]	L[‡]	$\Gamma^{\downarrow}$(keV)[‡]	Comments
16177.8	7/2$^-$	65.2 keV *5*	3	46.0 *8*	E_{lab}=9995 keV.
16808.2	3/2$^-$	98 keV *1*	1	52 *5*	E_{lab}=10630 keV.
17263.9	1/2$^-$	89 keV *1*	1	50 *2*	E_{lab}=11089 keV.
17482.3	9/2$^-$	48 keV *4*	5	44 *7*	Γ: other: 80 keV (1977Cl02). E_{lab}=11039 keV.
17612.3	5/2$^-$	73 keV *1*	3	48 *4*	E_{lab}=11440 keV.
17752.3	13/2$^+$	34 keV *9*	6		E_{lab}=11581 keV. E(level): resonance not reported by 1977Cl02.
17818.8	9/2$^-$	66 keV *11*	5	62 *14*	Γ: other: 130 keV (1977Cl02). E_{lab}=11648 keV.
17869.4	7/2$^-$	76 keV *3*	3	60 *9*	E_{lab}=11699 keV. Γ: other: 48 keV (1977Cl02).
17888.3	5/2$^-$	66 keV *2*	3	48 *13*	Γ: other: 126 keV (1977Cl02). E_{lab}=11718 keV.
17957.8	3/2$^-$	57 keV *6*	1	38 *16*	E_{lab}=11788 keV.
18019.3?	(9/2$^-$)	118 keV			E(level): resonance reported by 1977Cl02 only. E_{lab}=11850 keV.
18120.6	7/2$^-$	95 keV *11*	3	68 *23*	J^{π}: other: 3/2$^-$ from 1977Cl02. E_{lab}=11952 keV.
18140.4	5/2$^-$	57 keV *4*	3	53 *11*	Γ: other: 113 keV (1977Cl02). E_{lab}=11972 keV.
18293.3	7/2$^-$	64 keV *5*	3		Γ: other: 90 keV (1977Cl02). E_{lab}=12126 keV.
18335.0	3/2$^-$	94 keV *5*	1		E_{lab}=12168 keV.
18358.9	5/2$^-$	68 keV *5*	3		E_{lab}=12192 keV.
18363.81	1/2$^-$	84 keV *4*	1		E_{lab}=12197 keV.
(18512.7[#])	(5/2$^-$)	76 keV	(3)		E_{lab}=12347 keV.
(18624.9[#])	(3/2$^-$)	2 keV	(1)		E_{lab}=12460 keV.

[†] S(p)=6255.7 *23* (2012Wa38).

[‡] From resonance analysis.

[#] These resonances were not fitted in the analysis but are necessary for a good fit to the data (1989Ny02).