

$^{136}\text{Ba}(\gamma,\gamma'),(\text{pol } \gamma,\gamma')$ **2012Ma31,1998Pi06,1978Me18**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 152, 331 (2018)	1-Apr-2018

2012Ma31: Bremsstrahlung γ 's with $E(\gamma) \leq 10$ MeV. Measured $E\gamma$, $I\gamma$, $\gamma(\theta=90^\circ, 127^\circ)$ using four HPGe detectors. Also (pol γ, g') with $E(\gamma)=4.7, 5.1, 5.6, 6.1, 6.5, 7.0, 7.5, 8.0, 8.4, 8.7, 9.0$, and 9.3 MeV. Measured $E\gamma$, $I\gamma$, $\gamma(\theta)$, and $\gamma(\text{lin pol})$ using four HPGe detectors.

1998Pi06: Bremsstrahlung γ 's with $E(\gamma) \leq 4.1$ MeV and ≤ 2.8 MeV. Measured $E\gamma$, $I\gamma$, $\gamma(\theta=90^\circ, 127^\circ)$ using Ge detectors.

1978Me18: Bremsstrahlung γ 's with $E(\gamma) \leq 4.1$ MeV. Measured $E\gamma$, $I\gamma$, $\gamma(\theta=96^\circ, 126^\circ)$ and linear polarization using Ge(Li) detectors. No strong excitations in ^{136}Ba noted between 4.2 and 5 MeV.

 ^{136}Ba Levels

E(level) [†]	J ^π [‡]	T _{1/2} [#]	$\Gamma^2_{\gamma 0}/\Gamma$ (eV) [@]	Comments
0.0	0 ⁺			
818.2 2				
1551.1 2	2 ^{&}	0.88 ps 39	1.4×10 ^{-4b} 6	
2079.9 1	2 ^a	>0.6 ps	<1×10 ^{-4c}	$\Gamma^2_{\gamma 0}/\Gamma$ (eV): other: -4×10 ⁻⁵ eV 14 (1978Me18).
2128.8 1	2 ^{&}	0.051 ps 4	1.00×10 ^{-3c} 6	$\Gamma^2_{\gamma 0}/\Gamma$ (eV): other: 7.0×10 ⁻⁴ eV 20 (1978Me18).
2223.6 5				
2484.6 1		>0.018 ps	3×10 ^{-4b} 6	
2693.3 2	1 ^a	0.0133 ps 24	0.026 ^c 4	
2773.0 1				
2779.3 8				
2976.7 6			0.014 2	I _s =18 eVb 3 (2012Ma31).
3043.7	1 ^{&}	0.0201 ps 24	0.0136 ^c 6	I _s =15 eVb 3 (2012Ma31). $\Gamma^2_{\gamma 0}/\Gamma$ (eV): others: 0.017 2 (1978Me18), 0.059 7 (2012Ma31).
3109.9 1			0.027 4	I _s =32 eVb 5 (2012Ma31).
3115.7 1	2 ^{&}	0.122 ps 22	3.6×10 ^{-3c} 4	I _s =57 eVb 6 (2012Ma31). $\Gamma^2_{\gamma 0}/\Gamma$ (eV): others: 0.0041 6 (1978Me18), 0.048 5 (2012Ma31).
3369.6 1	1 ^{&}	0.018 ps 4	0.0248 ^c 13	I _s =20 eVb 4 (2012Ma31). $\Gamma^2_{\gamma 0}/\Gamma$ (eV): others: 0.030 5 (1978Me18), 0.062 6 (2012Ma31).
3435.1 1	1 ^{-&}	0.0060 ps 13	0.076 ^c 5	I _s =107 eVb 9 (2012Ma31). $\Gamma^2_{\gamma 0}/\Gamma$ (eV): others: 0.071 10 (1978Me18), 0.109 9 (2012Ma31).
3526.0 3			0.016 2	I _s =15 eVb 2 (2012Ma31).
3881.1 1			0.013 3	I _s =10 eVb 2 (2012Ma31).
3979.8 2	(1)	0.021 ps 4	0.022 ^c 4	$\Gamma^2_{\gamma 0}/\Gamma$ (eV): others: 0.021 6 (1978Me18), 0.042 eV 5 (2012Ma31).
4137.1 1	1		0.059 6	I _s =18 eVb 3 (2012Ma31). I _s =19 eVb 3 (2012Ma31). $\Gamma^2_{\gamma 0}/\Gamma$ (eV): other: 0.10 eV 4 (1978Me18).
4231.2 2	1		0.039 5	I _s =25 eVb 3 (2012Ma31).
4366.8 2	1		0.056 9	I _s =18 eVb 3 (2012Ma31).
4413.3 1	(1)		0.035 10	I _s =21 eVb 6 (2012Ma31).
4475.2 1	(1)		0.046 8	I _s =12 eVb 3 (2012Ma31).
4536.4 3	1		0.048 7	I _s =27 eVb 4 (2012Ma31).
4601.1 2	(1)		0.048 10	I _s =26 eVb 6 (2012Ma31).
4623.7 3	1 ⁻		0.066 7	I _s =36 eVb 4 (2012Ma31).
4639.7 10	1 ⁻		0.064 7	I _s =35 eVb 4 (2012Ma31).

Continued on next page (footnotes at end of table)

$^{136}\text{Ba}(\gamma, \gamma'), (\text{pol } \gamma, \gamma')$ **2012Ma31, 1998Pi06, 1978Me18 (continued)** ^{136}Ba Levels (continued)

E(level) [†]	J ^π [‡]	$\Gamma^2_{\gamma 0}/\Gamma$ (eV) [@]	Comments
4697.8 1	1 ⁻	0.049 6	I _s =25 eVb 3 (2012Ma31).
4767.7 1	1 ⁻	0.081 8	I _s =41 eVb 4 (2012Ma31).
4814.1 1	1	0.057 17	I _s =28 eVb 9 (2012Ma31).
4833.3 5		0.027 13	I _s =13 eVb 17 (2012Ma31).
4897.8 16	1	0.027 13	I _s =12 eVb 4 (2012Ma31).
4985.0 6	1 ⁻	0.106 9	I _s =49 eVb 4 (2012Ma31).
5039.6 29	1 ⁻	0.177 20	I _s =80 eVb 9 (2012Ma31).
5060.8 2	1 ⁻	0.163 19	I _s =60 eVb 7 (2012Ma31).
5076.9 8	1 ⁻	0.147 17	I _s =54 eVb 7 (2012Ma31).
5094.5 7	1 ⁻	0.223 24	I _s =55 eVb 6 (2012Ma31).
5135.2 3	1 ⁻	0.105 20	I _s =46 eVb 9 (2012Ma31).
5216.3 2	(1)	0.110 16	I _s =47 eVb 7 (2012Ma31).
5268.4 7	(1)	0.051 9	I _s =21 eVb 4 (2012Ma31).
5294.3 1	1	0.206 19	I _s =85 eVb 8 (2012Ma31).
5337.8 2	1	0.111 17	I _s =39 eVb 7 (2012Ma31).
5396.5 7	(1)	0.096 14	I _s =23 eVb 6 (2012Ma31).
5418.4 5	(1)	0.089 13	I _s =12 eVb 3 (2012Ma31).
5431.5 10	1	0.070 12	I _s =34 eVb 4 (2012Ma31).
5444.4 1	(1)	0.067 12	I _s =19 eVb 6 (2012Ma31).
5497.6 7	1 ⁻	0.133 15	I _s =51 eVb 6 (2012Ma31).
5561.1 3	1 ⁻	0.067 11	I _s =25 eVb 4 (2012Ma31).
5585.6 7	1 ⁻	0.167 17	I _s =62 eVb 6 (2012Ma31).
5601.2 1	1 ⁻	0.209 21	I _s =44 eVb 11 (2012Ma31).
5610.0 6	1 ⁻	0.33 3	I _s =138 eVb 16 (2012Ma31).
5647.9 13	1 ⁻	0.209 24	I _s =62 eVb 10 (2012Ma31).
5652.2 10	1 ⁻	0.198 23	I _s =71 eVb 8 (2012Ma31).
5718 3	(1)	0.27 3	I _s =94 eVb 9 (2012Ma31).
5735.0 7		0.205 21	I _s =60 eVb 7 (2012Ma31).
5768.0 4	1	0.259 25	I _s =90 eVb 9 (2012Ma31).
5781.7 9	1	0.144 17	I _s =50 eVb 6 (2012Ma31).
5805.1 1	1	0.181 19	I _s =48 eVb 10 (2012Ma31).
5924.2 6	1	0.091 18	I _s =30 eVb 6 (2012Ma31).
5965.8 4	1 ⁻	0.094 19	I _s =31 eVb 6 (2012Ma31).
5979.2 2	1 ⁻	0.076 18	I _s =24 eVb 6 (2012Ma31).
6005.0 1	1 ⁻	0.118 22	I _s =38 eVb 7 (2012Ma31).
6035.7 1	1 ⁻	0.28 5	I _s =59 eVb 8 (2012Ma31).
6052.9 2	1 ⁻	0.23 5	I _s =71 eVb 15 (2012Ma31).
6061.4 1	1 ⁻	0.26 5	I _s =81 eVb 15 (2012Ma31).
6082.5 1	1 ⁻	0.40 6	I _s =97 eVb 29 (2012Ma31).
6113.3 2	1 ⁻	0.44 8	I _s =116 eVb 20 (2012Ma31).
6161.2 2	1 ⁻	0.45 7	I _s =92 eVb 15 (2012Ma31).
6182.4 2	1 ⁻	0.38 8	I _s =102 eVb 20 (2012Ma31).
6192.8 8	(1)	0.28 5	I _s =66 eVb 16 (2012Ma31).
6215.7 5	(1)	0.19 4	I _s =57 eVb 13 (2012Ma31).
6231.6 4	(1)	0.13 3	I _s =38 eVb 10 (2012Ma31).
6244.2 8	(1)	0.12 3	I _s =36 eVb 9 (2012Ma31).
6264.8 2	(1)	0.08 3	I _s =23 eVb 8 (2012Ma31).
6289.2 7	(1)	0.107 21	I _s =31 eVb 6 (2012Ma31).
6331.9 4	1 ⁻	0.37 5	I _s =107 eVb 14 (2012Ma31).
6344.4 7	1 ⁻	0.24 4	I _s =68 eVb 11 (2012Ma31).
6358.2 7	1 ⁻	0.39 5	I _s =112 eVb 13 (2012Ma31).
6373.6 8	1 ⁻	0.20 4	I _s =58 eVb 10 (2012Ma31).
6391.3 16	1 ⁻	0.82 9	I _s =199 eVb 40 (2012Ma31).
6409.9 19	1 ⁻	0.36 6	I _s =102 eVb 16 (2012Ma31).
6430.6 11	1 ⁻	0.32 4	I _s =88 eVb 11 (2012Ma31).
6449.5 2	1 ⁻	0.22 4	I _s =60 eVb 10 (2012Ma31).

Continued on next page (footnotes at end of table)

$^{136}\text{Ba}(\gamma, \gamma'), (\text{pol } \gamma, \gamma')$ **2012Ma31, 1998Pi06, 1978Me18 (continued)** ^{136}Ba Levels (continued)

E(level) [†]	J ^π [‡]	$\Gamma^2_{\gamma 0}/\Gamma$ (eV) [@]	Comments
6478.2 1	1 ⁻	0.18 4	I _s =48 eVb 12 (2012Ma31).
6488.7 1	1 ⁻	0.14 6	I _s =37 eVb 17 (2012Ma31).
6528.8 11	1 ⁻	0.12 3	I _s =34 eVb 8 (2012Ma31).
6554.3 8	1 ⁻	0.22 4	I _s =60 eVb 9 (2012Ma31).
6591.8 3	1 ⁻	0.30 4	I _s =81 eVb 10 (2012Ma31).
6625.3 1	1 ⁻	0.50 6	I _s =132 eVb 16 (2012Ma31).
6677.3 3	1	0.39 5	I _s =101 eVb 12 (2012Ma31).
6693.4 1	1	0.43 5	I _s =110 eVb 13 (2012Ma31).
6716.8 3	1	0.33 5	I _s =85 eVb 13 (2012Ma31).
6741.9 3	1 ⁻	0.47 5	I _s =118 eVb 13 (2012Ma31).
6756.6 2	1 ⁻	0.27 3	I _s =69 eVb 8 (2012Ma31).
6767.8 1	1 ⁻	0.180 23	I _s =45 eVb 6 (2012Ma31).
6776.8 1	1 ⁻	0.28 3	I _s =69 eVb 8 (2012Ma31).
6788.4 2	1 ⁻	0.21 3	I _s =51 eVb 7 (2012Ma31).
6830.8 7	1 ⁻	0.092 23	I _s =23 eVb 6 (2012Ma31).
6840.3 8	1 ⁻	0.21 4	I _s =51 eVb 9 (2012Ma31).
6847.5 11	1 ⁻	0.28 4	I _s =68 eVb 10 (2012Ma31).
6859.2 8	1 ⁻	0.25 3	I _s =61 eVb 7 (2012Ma31).
6870.4 10	1 ⁻	0.19 3	I _s =46 eVb 6 (2012Ma31).
6880.5 5	1 ⁻	0.27 3	I _s =65 eVb 8 (2012Ma31).
6895.8 2	1 ⁻	0.114 21	I _s =28 eVb 5 (2012Ma31).
6952.0 11	1 ⁻	0.17 5	I _s =40 eVb 11 (2012Ma31).
6982.3 2	1 ⁻	0.56 6	I _s =131 eVb 15 (2012Ma31).
6998.5 7	1 ⁻	0.39 10	I _s =91 eVb 24 (2012Ma31).
7006.6 14	1 ⁻	0.33 9	I _s =77 eVb 22 (2012Ma31).
7018.9 1	1 ⁻	0.42 6	I _s =99 eVb 13 (2012Ma31).
7150.6 1	(1)	0.32 7	I _s =71 eVb 15 (2012Ma31).
7251.1 3	1 ⁻	0.39 5	I _s =85 eVb 11 (2012Ma31).
7271.6 5	1 ⁻	0.24 4	I _s =52 eVb 10 (2012Ma31).
7281.5 15	1 ⁻	1.64 15	I _s =356 eVb 32 (2012Ma31).
7298.8 1	1 ⁻	0.43 5	I _s =92 eVb 11 (2012Ma31).
7314.8 2	1 ⁻	0.33 4	I _s =71 eVb 10 (2012Ma31).
7350.2 14	1 ⁻	0.18 3	I _s =38 eVb 7 (2012Ma31).
7364.1 3	1 ⁻	0.32 4	I _s =68 eVb 8 (2012Ma31).
7382.1 4	1 ⁻	0.26 4	I _s =54 eVb 8 (2012Ma31).
7394.4 9	1 ⁻	0.24 4	I _s =52 eVb 9 (2012Ma31).
7402.5 3	1 ⁻	0.22 4	I _s =47 eVb 9 (2012Ma31).
7414.9 13	1 ⁻	0.28 4	I _s =59 eVb 8 (2012Ma31).
7444.4 3	1 ⁻	0.34 6	I _s =70 eVb 12 (2012Ma31).
7472.5 1	1 ⁻	0.36 6	I _s =74 eVb 12 (2012Ma31).
7487.5 4	1 ⁻	0.45 6	I _s =92 eVb 13 (2012Ma31).
7502.8 3	1 ⁻	0.88 9	I _s =178 eVb 18 (2012Ma31).
7519.2 10	1 ⁻	0.42 5	I _s =87 eVb 11 (2012Ma31).
7541.0 6	1 ⁻	0.35 5	I _s =71 eVb 10 (2012Ma31).
7558.1 7	1 ⁻	0.34 5	I _s =68 eVb 10 (2012Ma31).
7572.1 1	1 ⁻	0.52 7	I _s =104 eVb 14 (2012Ma31).
7583.5 8	1 ⁻	0.32 7	I _s =65 eVb 14 (2012Ma31).
7594.8 5	1 ⁻	0.19 7	I _s =38 eVb 13 (2012Ma31).
7604.2 8	1	0.24 6	I _s =47 eVb 16 (2012Ma31).
7625.7 4	1	0.37 5	I _s =74 eVb 11 (2012Ma31).
7662.3 2	1	0.19 5	I _s =38 eVb 9 (2012Ma31).
7675.6 2	1	0.12 4	I _s =24 eVb 8 (2012Ma31).
7699.0 3	1	0.56 7	I _s =1110 eVb 14 (2012Ma31).
7747.6 5	1	0.17 5	I _s =32 eVb 9 (2012Ma31).
7769.8 1	1	0.45 7	I _s =85 eVb 13 (2012Ma31).
7788.1 5	(1)	0.16 5	I _s =31 eVb 9 (2012Ma31).

Continued on next page (footnotes at end of table)

$^{136}\text{Ba}(\gamma, \gamma'), (\text{pol } \gamma, \gamma')$ **2012Ma31, 1998Pi06, 1978Me18 (continued)** ^{136}Ba Levels (continued)

E(level) [†]	J ^π [‡]	$\Gamma^2_{\gamma 0}/\Gamma$ (eV) [@]	Comments
7819.8 8	1 ⁻	0.25 5	I _s =47 eVb 9 (2012Ma31).
7848.9 3	1 ⁻	0.31 9	I _s =58 eVb 16 (2012Ma31).
7857.9 12	1 ⁻	0.24 7	I _s =45 eVb 13 (2012Ma31).
7875.0 11	1 ⁻	0.26 8	I _s =48 eVb 15 (2012Ma31).
7895.2 2	1 ⁻	0.24 9	I _s =44 eVb 17 (2012Ma31).
7911.3 4	1 ⁻	0.85 14	I _s =155 eVb 25 (2012Ma31).
7972.4 10	1 ⁻	0.49 8	I _s =89 eVb 14 (2012Ma31).
8006.6 5	1 ⁻	0.35 6	I _s =63 eVb 11 (2012Ma31).
8083.5 3	1 ⁻	0.11 4	I _s =20 eVb 6 (2012Ma31).
8124.7 2	1 ⁻	0.056 21	I _s =10 eVb 4 (2012Ma31).
8144.3 7	1 ⁻	0.110 24	I _s =19 eVb 4 (2012Ma31).
8171.2 10	1 ⁻		
8184.3 3	1 ⁻	0.102 24	I _s =18 eVb 4 (2012Ma31).
8227.9 5	1 ⁻		
8250.8 7	1 ⁻		
8280.4 10	1 ⁻		
8315.4 9	1 ⁻		
8339.2 14	1 ⁻	0.11 3	I _s =18 eVb 6 (2012Ma31).
8359.5 5	1 ⁻	0.14 4	I _s =23 eVb 6 (2012Ma31).
8389.7 7	1 ⁻		
8404.1 13	1 ⁻		
8611.1 21	1 ⁻	0.43 10	I _s =66 eVb 16 (2012Ma31).
8825.1 10	1 ⁻		
9049.5 7	1 ⁻	0.41 19	I _s =58 eVb 27 (2012Ma31).
9077.8 7	1 ⁻	0.75 18	I _s =105 eVb 20 (2012Ma31).

[†] From 2012Ma31.[‡] From $\gamma(\theta)$ and $\gamma(\text{lin pol})$ in 2012Ma31, except where noted.[#] Derived by evaluator from $\Gamma^2_{\gamma 0}/\Gamma$ and adopted g.s. branching ratio.[@] From 2012Ma31, except where noted.[&] From $\gamma(\theta)$ and $\gamma(\text{lin pol})$ in 1978Me18.^a From $\gamma(\theta)$ in 1998Pi06; authors do not provide details of the measurement.^b From 1978Me18.^c From 1998Pi06. $\gamma(^{136}\text{Ba})$

Values of $N_\gamma(90^\circ)/N_\gamma(127^\circ)$ are from 2012Ma31. Expected values are 0.74 for dipole transitions and 2.28 for quadrupole transitions. POL values also from 2012Ma31, except where noted.

E_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [‡]	Comments
818.2 2	818.2		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.82$ 2.
1551.1 2	1551.1	2	0.0	0 ⁺	Q [#]	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.97$ 6. $N_\gamma(126^\circ)/N_\gamma(96^\circ)=0.6$ 5 (1978Me18).
2079.9 1	2079.9	2	0.0	0 ⁺	Q [@]	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.97$ 6.
2128.8 1	2128.8	2	0.0	0 ⁺	Q [#]	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.93$ 7. $N_\gamma(126^\circ)/N_\gamma(96^\circ)=0.44$ 19 (1978Me18).
2223.6 5	2223.6		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.66$ 14.

Continued on next page (footnotes at end of table)

$^{136}\text{Ba}(\gamma, \gamma'), (\text{pol } \gamma, \gamma')$ **2012Ma31, 1998Pi06, 1978Me18 (continued)** $\gamma(^{136}\text{Ba})$ (continued)

$E_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [‡]	Comments
2484.6 1	2484.6		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.94$ 11.
2693.3 2	2693.3	1	0.0	0 ⁺	D [@]	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.1$ 3.
2773.0 1	2773.0		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.15$ 19.
2779.3 8	2779.3		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.5$ 6.
2976.7 6	2976.7		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.03$ 28.
3043.6 1	3043.7	1	0.0	0 ⁺	D [#]	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.91$ 16.
3109.8 1	3109.9		0.0	0 ⁺		$N_\gamma(126^\circ)/N_\gamma(96^\circ)=1.27$ 14, POL=+0.09 14 (1978Me18).
3115.6 1	3115.7	2	0.0	0 ⁺	Q [#]	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.86$ 15.
3369.5 1	3369.6	1	0.0	0 ⁺	D [#]	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.86$ 9.
3435.0 1	3435.1	1 ⁻	0.0	0 ⁺	E1 [#]	$N_\gamma(126^\circ)/N_\gamma(96^\circ)=0.50$ 13 (1978Me18).
3525.9 3	3526.0		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.83$ 8.
3881.0 1	3881.1		0.0	0 ⁺		$N_\gamma(126^\circ)/N_\gamma(96^\circ)=1.18$ 14 (1978Me18).
3979.7 2	3979.8	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.81$ 5.
4137.0 1	4137.1	1	0.0	0 ⁺	D	$N_\gamma(126^\circ)/N_\gamma(96^\circ)=1.28$ 12, POL=+0.066 32 (1978Me18).
4231.1 2	4231.2	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.09$ 26.
4366.7 2	4366.8	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.4$ 5.
4413.2 1	4413.3	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.86$ 19.
4475.1 1	4475.2	(1)	0.0	0 ⁺	(D)	$N_\gamma(126^\circ)/N_\gamma(96^\circ)=1.08$ 25 (1978Me18).
4536.3 3	4536.4	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.77$ 12.
4601.0 2	4601.1	(1)	0.0	0 ⁺	(D)	$N_\gamma(126^\circ)/N_\gamma(96^\circ)=1.0$ 4 (1978Me18).
4623.6 3	4623.7	1 ⁻	0.0	0 ⁺	E1	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.57$ 19.
4639.6 10	4639.7	1 ⁻	0.0	0 ⁺	E1	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.55$ 11.
4697.7 1	4697.8	1 ⁻	0.0	0 ⁺	E1	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.7$ 4.
4767.6 1	4767.7	1 ⁻	0.0	0 ⁺	E1	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.05$ 24.
4814.0 1	4814.1	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.64$ 15.
4833.2 5	4833.3		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.7$ 4.
4897.7 16	4897.8	1	0.0	0 ⁺	D	POL=+0.97 11.
4984.9 6	4985.0	1 ⁻	0.0	0 ⁺	E1	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.7$ 10.
5039.5 29	5039.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 6.
5060.7 2	5060.8	1 ⁻	0.0	0 ⁺	E1	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=2.0$ 10.
5076.8 8	5076.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 9.
5094.4 7	5094.5	1 ⁻	0.0	0 ⁺	E1	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.46$ 13.
5135.1 3	5135.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.89 34.
5216.2 2	5216.3	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.95$ 27.
5268.3 7	5268.4	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.73$ 25.
5294.2 1	5294.3	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.00$ 5.
5337.7 2	5337.8	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.50$ 18.
5396.4 7	5396.5	(1)	0.0	0 ⁺	(D)	POL=+0.91 20.
5418.3 5	5418.4	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.97$ 19.

Continued on next page (footnotes at end of table)

$^{136}\text{Ba}(\gamma, \gamma'), (\text{pol } \gamma, \gamma')$ **2012Ma31, 1998Pi06, 1978Me18 (continued)** $\gamma(^{136}\text{Ba})$ (continued)

$E_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	Comments
5431.4 10	5431.5	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.52$ 22.
5444.3 1	5444.4	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.76$ 25.
5497.5 7	5497.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.91 10. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.1$ 4.
5561.0 3	5561.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 9. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.64$ 15.
5585.5 7	5585.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.96 4. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.81$ 8.
5601.1 1	5601.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.66$ 6.
5609.9 6	5610.0	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.9$ 3.
5647.8 13	5647.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.5$ 1.
5652.1 10	5652.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.94 2. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.22$ 13.
5718 3	5718	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.0$ 4.
5734.9 7	5735.0		0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.5$ 11.
5767.9 4	5768.0	1	0.0	0 ⁺		$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.61$ 9.
5781.6 9	5781.7	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.52$ 7.
5805.0 1	5805.1	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.54$ 10.
5924.1 6	5924.2	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.64$ 20.
5965.7 4	5965.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.85 19. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.52$ 19.
5979.1 2	5979.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.88 12. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.55$ 20.
6004.9 1	6005.0	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 8. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.53$ 11.
6035.6 1	6035.7	1 ⁻	0.0	0 ⁺	E1	POL=+0.94 4. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.77$ 16.
6052.8 2	6052.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 4. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.70$ 16.
6061.3 1	6061.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.83$ 16.
6082.4 1	6082.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 2. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.81$ 14.
6113.2 2	6113.3	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.78$ 13.
6161.1 2	6161.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 4. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.98$ 16.
6182.2 2	6182.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 11. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.83$ 20.
6192.6 8	6192.8	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.87$ 19.
6215.5 5	6215.7	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.98$ 26.
6231.4 4	6231.6	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.9$ 3.
6244.0 8	6244.2	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.8$ 3.
6264.6 2	6264.8	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.0$ 4.
6289.0 7	6289.2	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.24$ 27.
6331.7 4	6331.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 7. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.77$ 16.
6344.2 7	6344.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.94 13. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.72$ 12.
6358.0 7	6358.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.93 10. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.83$ 13.
6373.4 8	6373.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.79 19. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.0$ 7.

Continued on next page (footnotes at end of table)

$^{136}\text{Ba}(\gamma, \gamma'), (\text{pol } \gamma, \gamma')$ **2012Ma31, 1998Pi06, 1978Me18 (continued)** $\gamma(^{136}\text{Ba})$ (continued)

$E_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	Comments
6391.1 16	6391.3	1 ⁻	0.0	0 ⁺	E1	POL=+1.00 2. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.8$ 1.
6409.7 19	6409.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.6$ 3.
6430.4 11	6430.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 4. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.91$ 18.
6449.3 2	6449.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.93 7. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.76$ 27.
6478.0 1	6478.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 14. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.35$ 20.
6488.5 1	6488.7	1 ⁻	0.0	0 ⁺	E1	POL=+0.90 12. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.35$ 19.
6528.6 11	6528.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.95 15. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.55$ 17.
6554.1 8	6554.3	1 ⁻	0.0	0 ⁺	E1	POL=+0.75 24. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.53$ 10.
6591.6 3	6591.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.92 26. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.69$ 11.
6625.1 1	6625.3	1 ⁻	0.0	0 ⁺	E1	POL=+0.91 28. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.52$ 6.
6677.1 3	6677.3	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.52$ 6.
6693.2 1	6693.4	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.64$ 8.
6716.6 3	6716.8	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.52$ 9.
6741.7 3	6741.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.69$ 10.
6756.4 2	6756.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.76 14. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.66$ 11.
6767.6 1	6767.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.89 12. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.72$ 11.
6776.6 1	6776.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.74 19. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.81$ 14.
6788.2 2	6788.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.76 16. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.75$ 24.
6830.6 7	6830.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.76 22. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.00$ 29.
6840.1 8	6840.3	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.94$ 18.
6847.3 11	6847.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.96 5. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.96$ 17.
6859.0 8	6859.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.90 8. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.99$ 18.
6870.2 10	6870.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.85 15. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.01$ 16.
6880.3 5	6880.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.85 7. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.11$ 28.
6895.6 2	6895.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.74 12. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.10$ 19.
6951.8 11	6952.0	1 ⁻	0.0	0 ⁺	E1	POL=+0.94 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.46$ 13.
6982.1 2	6982.3	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.44$ 7.
6998.3 7	6998.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 1. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.49$ 15.
7006.4 14	7006.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 1. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.41$ 13.
7018.7 1	7018.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 2. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.41$ 7.

Continued on next page (footnotes at end of table)

$^{136}\text{Ba}(\gamma, \gamma'), (\text{pol } \gamma, \gamma')$ **2012Ma31, 1998Pi06, 1978Me18 (continued)** $\gamma(^{136}\text{Ba})$ (continued)

$E_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	Comments
7150.4 1	7150.6	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.97$ 22.
7250.9 3	7251.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.83 16.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.76$ 17.
7271.4 5	7271.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.77 26.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.47$ 8.
7281.3 15	7281.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.76 25.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.72$ 8.
7298.6 1	7298.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.83 14.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.64$ 11.
7314.6 2	7314.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 13.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.51$ 22.
7350.0 14	7350.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.90 26.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.76$ 29.
7363.9 3	7364.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 9.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.8$ 3.
7381.9 4	7382.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 6.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.9$ 4.
7394.2 9	7394.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.9 4.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.74$ 23.
7402.3 3	7402.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.96 6.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.4$ 4.
7414.7 13	7414.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.96 18.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.93$ 27.
7444.2 3	7444.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 3.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.74$ 16.
7472.3 1	7472.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 3.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.58$ 11.
7487.3 4	7487.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 3.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.58$ 8.
7502.6 3	7502.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 1.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.58$ 7.
7519.0 10	7519.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.95 4.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.64$ 12.
7540.8 6	7541.0	1 ⁻	0.0	0 ⁺	E1	POL=+0.88 9.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.49$ 9.
7557.9 7	7558.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 5.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.62$ 11.
7571.9 1	7572.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 7.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.56$ 12.
7583.3 8	7583.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 10.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.57$ 24.
7594.6 5	7594.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.9 5.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.9$ 11.
7604.0 8	7604.2	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.25$ 7.
7625.5 4	7625.7	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.52$ 14.
7662.1 2	7662.3	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.8$ 6.
7675.4 2	7675.6	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.40$ 14.
7698.8 3	7699.0	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.68$ 20.
7747.4 5	7747.6	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.74$ 22.
7769.6 1	7769.8	1	0.0	0 ⁺	D	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.68$ 22.
7787.9 5	7788.1	(1)	0.0	0 ⁺	(D)	$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.76$ 26.
7819.6 8	7819.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.90 10.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.63$ 20.
7848.7 3	7848.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 10.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.4$ 4.
7857.7 12	7857.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 3.
						$N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.22$ 10.

Continued on next page (footnotes at end of table)

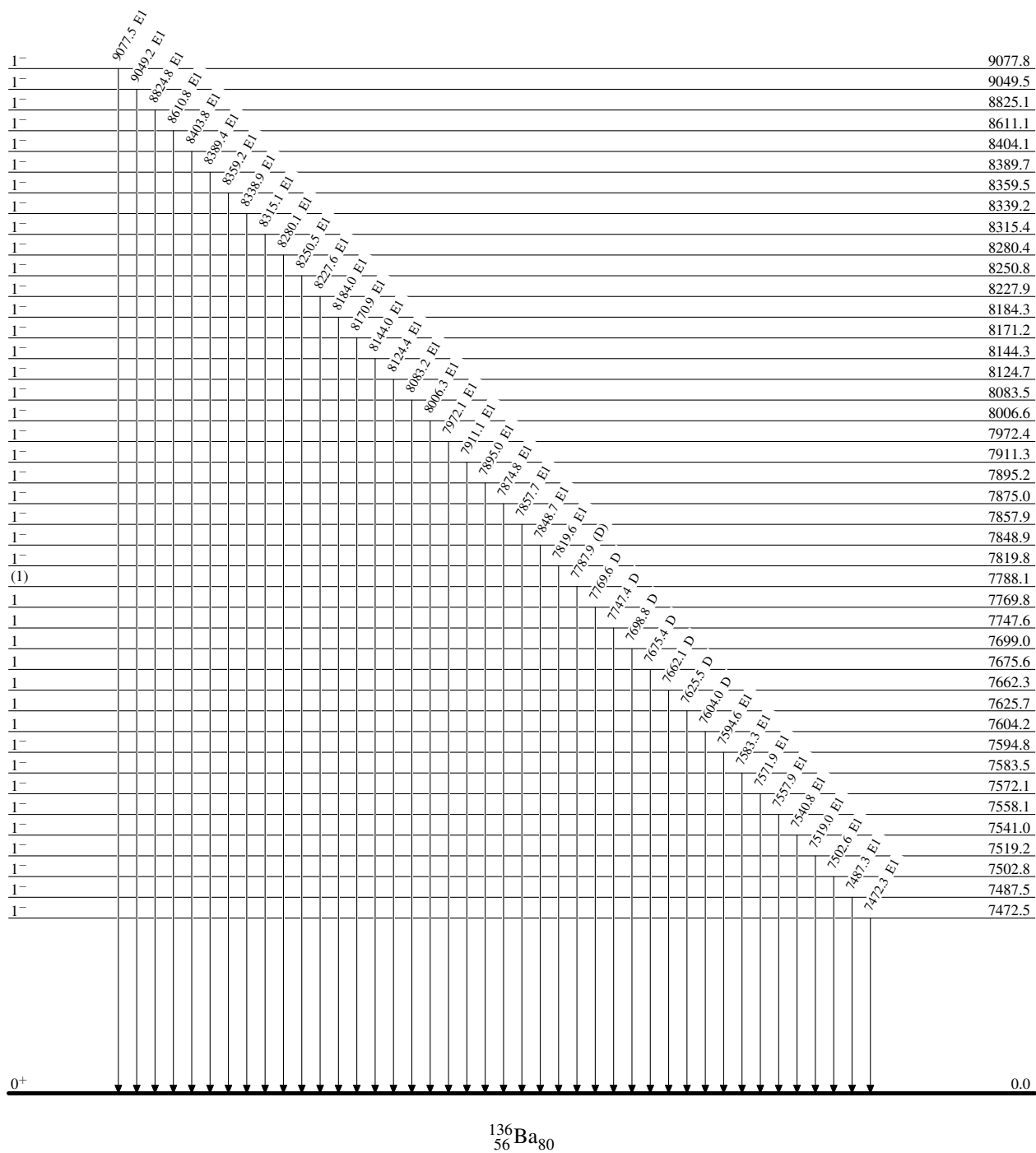
$^{136}\text{Ba}(\gamma, \gamma'), (\text{pol } \gamma, \gamma')$ **2012Ma31, 1998Pi06, 1978Me18 (continued)** $\gamma(^{136}\text{Ba})$ (continued)

$E_\gamma^\dagger$	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. ‡	Comments
7874.8 11	7875.0	1 ⁻	0.0	0 ⁺	E1	POL=+0.97 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.30$ 12.
7895.0 2	7895.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 5. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.1$ 5.
7911.1 4	7911.3	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 2. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.73$ 13.
7972.1 10	7972.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 2. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.91$ 18.
8006.3 5	8006.6	1 ⁻	0.0	0 ⁺	E1	POL=+0.98 2. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.85$ 24.
8083.2 3	8083.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.99 4. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.2$ 9.
8124.4 2	8124.7	1 ⁻	0.0	0 ⁺	E1	POL=+0.7 6. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.57$ 25.
8144.0 7	8144.3	1 ⁻	0.0	0 ⁺	E1	POL=+0.7 5. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.88$ 26.
8170.9 10	8171.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.9 4. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=2.0$ 8.
8184.0 3	8184.3	1 ⁻	0.0	0 ⁺	E1	POL=+0.7 5. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.95$ 29.
8227.6 5	8227.9	1 ⁻	0.0	0 ⁺	E1	POL=+0.8 6. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=2.9$ 8.
8250.5 7	8250.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.93 23. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.9$ 4.
8280.1 10	8280.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.95 15. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.5$ 3.
8315.1 9	8315.4	1 ⁻	0.0	0 ⁺	E1	POL=+0.94 20. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.7$ 7.
8338.9 14	8339.2	1 ⁻	0.0	0 ⁺	E1	POL=+0.79 29. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.2$ 6.
8359.2 5	8359.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.8 9. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.2$ 3.
8389.4 7	8389.7	1 ⁻	0.0	0 ⁺	E1	POL=+0.9 4. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.6$ 4.
8403.8 13	8404.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.9 5. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.8$ 4.
8610.8 21	8611.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.95 16. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.23$ 29.
8824.8 10	8825.1	1 ⁻	0.0	0 ⁺	E1	POL=+0.83 17. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=1.5$ 7.
9049.2 7	9049.5	1 ⁻	0.0	0 ⁺	E1	POL=+0.9 3. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.9$ 5.
9077.5 7	9077.8	1 ⁻	0.0	0 ⁺	E1	POL=+0.92 16. $N_\gamma(90^\circ)/N_\gamma(127^\circ)=0.7$ 3.

[†] From 2012Ma31, except where noted.[‡] From $\gamma(\theta)$ and $\gamma(\text{lin pol})$ in 2012Ma31, except where noted.# From $\gamma(\theta)$ and $\gamma(\text{lin pol})$ in 1978Me18.@ From $\gamma(\theta)$ in 1998Pi06, no specific details on $I_\gamma(90^\circ)/I_\gamma(127^\circ)$ ratios were provided.

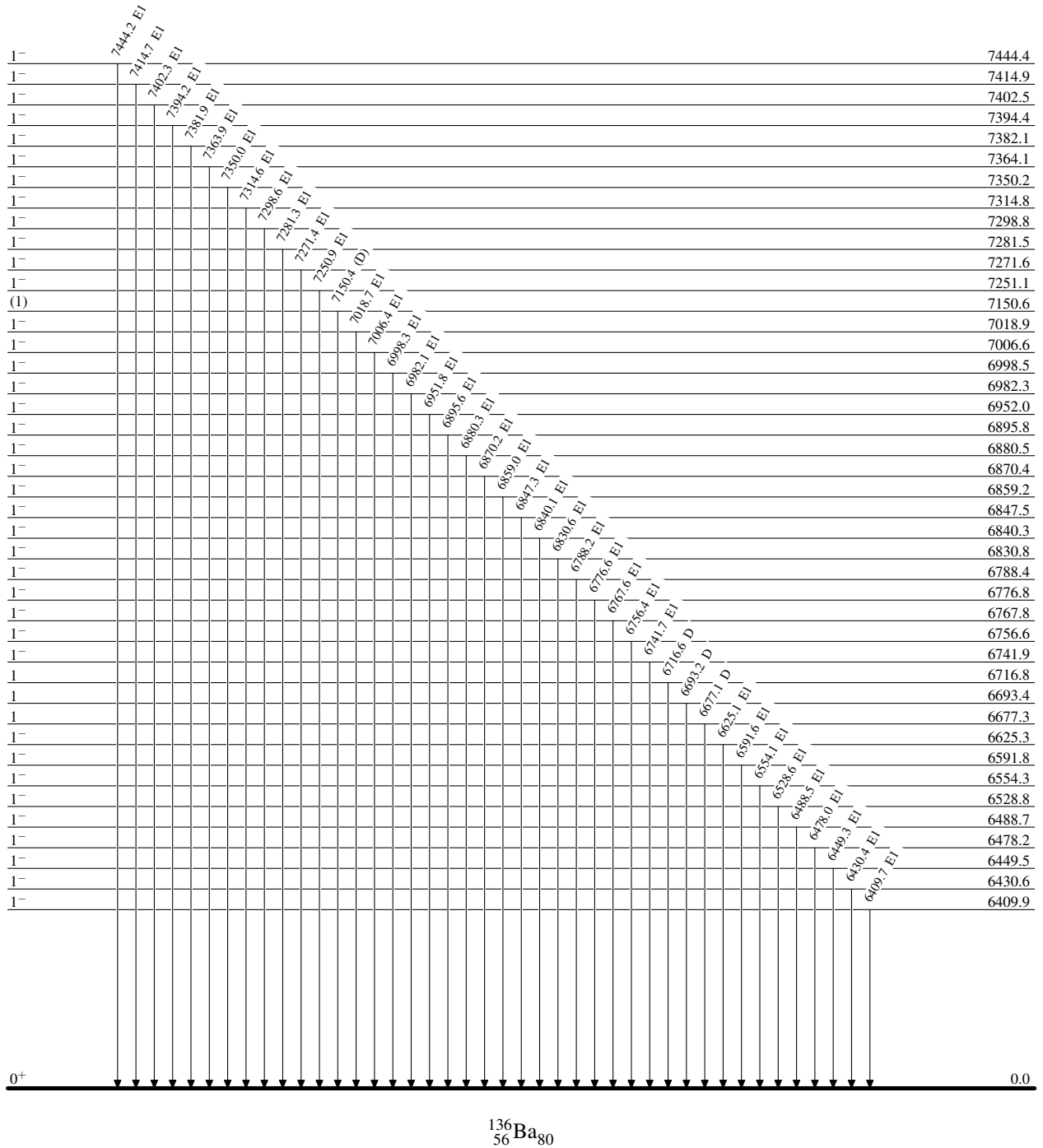
$^{136}\text{Ba}(\gamma,\gamma'),(\text{pol } \gamma,\gamma')$ 2012Ma31,1998Pi06,1978Me18

Level Scheme



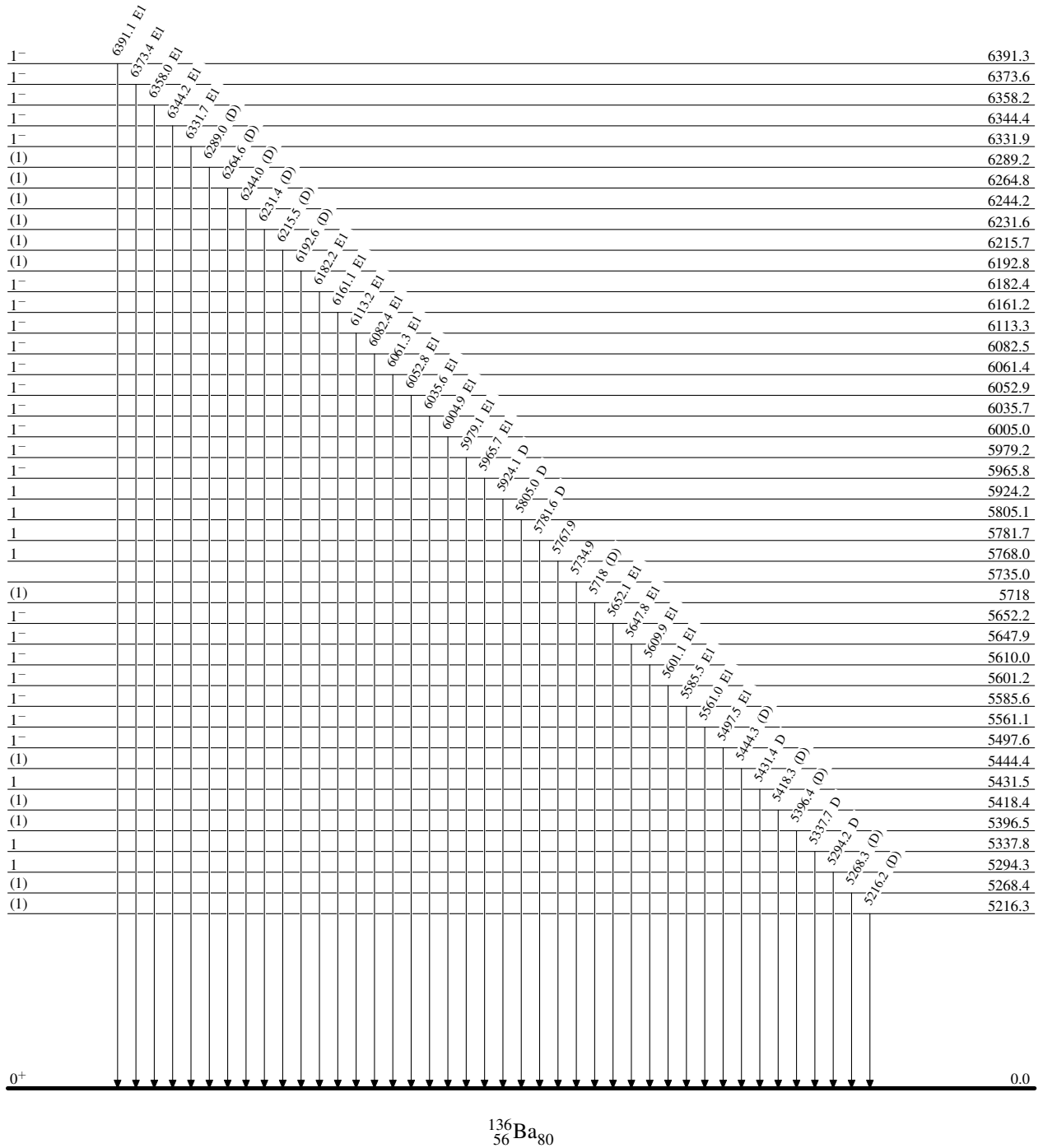
$^{136}\text{Ba}(\gamma,\gamma'),(\text{pol } \gamma,\gamma')$ 2012Ma31,1998Pi06,1978Me18

Level Scheme (continued)



$^{136}\text{Ba}(\gamma,\gamma'),(\text{pol } \gamma,\gamma')$ 2012Ma31,1998Pi06,1978Me18

Level Scheme (continued)

 $^{136}_{56}\text{Ba}_{80}$

$^{136}\text{Ba}(\gamma,\gamma'),(\text{pol } \gamma,\gamma')$ 2012Ma31,1998Pi06,1978Me18

Level Scheme (continued)

