

²⁰⁴Pb(d,p) 1977Ma03,1977Ma04

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev	NDS 166, 1 (2020)	20-Apr-2020

1977Ma03, 1977Ma04: E(d)=13 and 20 MeV; Target: ²⁰⁴Pb, enriched up to 99.7%; Detectors: multi-gap spectrograph, FWHM≈10 keV; Measured: σ(E(p),θ).
 Others: 1967Bj01, 1973Ca04.

²⁰⁵Pb Levels

E(level)	J ^π [†]	L [‡]	S [‡]	Comments
0.0 [#]	5/2 ⁻	3	0.27	
2.3 [@]	1/2 ⁻	1	0.83	
262 ^{&} 1	3/2 ⁻	1	0.15	
576 1	3/2 ⁻	1	0.007	
703 ^c 1	7/2 ⁻	3	<0.001	
761 1	5/2 ⁻	3	0.014	
803 1	(1/2,3/2) ⁻	1	0.003	
999 1	(1/2,3/2) ⁻	(1)	0.042	
1014 ^b 1	13/2 ⁺	6	0.045	
1044 ^a 1	7/2 ⁻	3	0.004	
1265 1	5/2 ⁻	3	0.004	
1374 1	(1/2,3/2) ⁻	1	0.004	
1614 1	7/2 ⁻	3	0.004	
1764 1	(7/2 ⁻)	3	0.016	L: Angular distribution deviates from L=3 DWBA.
1842 1	(13/2) ⁺	6	0.004	
2252 1	(7/2,9/2) ⁺	4	0.01	
2354 1	1/2 ⁻ ,3/2 ⁻	1	0.006	
2565 ^d 1	9/2 ⁺ ^e		0.16 1	
2607 ^d 1	9/2 ⁺ ^e		0.18 1	
2634 3			(0.017) 2	
2657 3			(0.013) 2	
2708 ^d 1	9/2 ⁺ ^e		0.38 2	
2798 2			0.05 3	
2862 2			(0.009) 2	
2931 2			0.005 1	
3010 2			0.030 2	
3043 2			0.015 2	
3119 2			0.016 2	
3165 3			(0.005) 1	
3249 3			(0.006) 1	
3306 3			(0.008) 2	
3334 2			(0.006) 1	
3393 3			0.09 2	
3422 4			0.03 6	
3435 2			(0.006) 1	
3483 2			0.045 2	
3511 2			0.20 2	
3533 2			0.022 1	
3566 2			0.023 1	
3592 4				
3613 3			0.06 1	
3659 2			0.009 1	
3764 2			0.009 2	
3834 4				

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$^{204}\text{Pb}(\text{d,p})$ **1977Ma03,1977Ma04** (continued) ^{205}Pb Levels (continued)

E(level)	S [‡]	E(level)	S [‡]	E(level)	S [‡]	E(level)	S [‡]
3857 2	0.007 2	4372 2	0.035 5	4840 2	0.055 8	5242 3	0.033 7
3889 4		4389 2	0.042 6	4874 2	0.039 7	5258 2	
3950 3	(0.005) 1	4412 2	0.025 4	4891 2	0.027 5	5285 3	0.017 3
3961 2	0.024 3	4428 4	(0.006) 1	4913 2	0.028 5	5304 2	0.049 7
3988 2	0.055 5	4443 3	0.020 3	4936 3	0.035 6	5317 3	0.038 6
4002 2	0.38 5	4452 2	0.050 8	4954 3	(0.008) 2	5325 2	0.025 5
4016 3	(0.000) 3	4497 2	0.340 30	4978 2	0.025 5	5344 2	0.039 6
4055 3	0.028 3	4539 2	0.185 20	4990 2	0.038 6	5364 4	0.025 5
4074 3		4558 2	0.100 15	5004 2	0.120 20	5378 4	(0.017) 4
4097 2	0.009 2	4590 2	0.150 20	5014 3	0.030 6	5399 3	(0.013) 3
4127 2	0.050 5	4624 2	(0.016) 3	5040 2	0.040 6	5418 2	0.056 8
4156 2	0.014 2	4642 4	(0.021) 4	5065 2	0.013 3	5439 2	0.025 5
4187 4	(0.0020) 4	4656 5		5083 2	0.145 17	5452 4	0.020 5
4199 3	(0.0040) 8	4693 3	(0.025) 5	5100 3	0.075 11	5473 3	0.040 8
4214 2	0.019 2	4709 3	(0.013) 3	5120 3	0.018 4	5486 3	0.036 5
4239 3	(0.005) 1	4722 2	0.05 10	5139 2	0.100 15	5515 4	0.023 5
4254 3	0.008 2	4745 4		5167 4	(0.017) 4	5534 3	0.027 5
4299 2	0.015 2	4760 2	0.014 3	5180 3	0.065 12	5572 3	0.020 4
4326 2	0.049 7	4777 2	0.014 3	5192 3	0.022 4	5598 2	(0.010) 2
4342 2	0.145 2	4787 2	0.011 2	5209 2	0.076 14	5623 3	0.020 4
4361 2	0.035 5	4803 2	0.014 3	5226 4	0.035 7		

[†] From deduced L values, unless otherwise stated.

[‡] From 1977Ma03 and 1977Ma04. Uncertainties in S are at a level of 15% (E(d)=20 MeV) and 18% (E(d)=13 MeV).

configuration= $\nu(f_{5/2}^{-1})$.

@ configuration= $\nu(p_{1/2}^{-1})$.

& configuration= $\nu(p_{3/2}^{-1})$.

^a Dominant configuration= $\nu(f_{7/2}^{-1})$.

^b configuration= $\nu(i_{13/2}^{-1})$.

^c Dominant configuration= $\nu(f_{5/2}^{-1})\otimes 2^+$.

^d A mixture of $\nu(g_{9/2}^{+1})$, $\nu(f_{5/2}^{-1})\otimes 3^-$ and $\nu(i_{13/2}^{-1})\otimes 4^+$ configurations.

^e Confirmed by vector analyzing power (1973Ca04).