^{206}Pb(n,γ) E=res 2007Bo24

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	F. G. Kondev, S. Lalkovski	NDS 112, 707 (2011)	1-Aug-2010

2007Bo24: Facility: GELINA at IRMM, Geel; Beam: neutrons from (γ,n) and ^{235}U(γ,Fn) reactions; Target: enriched to 99.82% 3 in ^{206}Pb; Detectors: Li-glass detector enriched to 95% in ^{6}Li, two BF_3 proportional counters, four cylindric C_6D_6 liquid scintillators, Frisch gridded ionization chamber, parallel plate ionization chamber; Measured: neutron time-of-flight, E_n, Eγ.

Others: 2008Do05, 2007Do18, 2007DoZY, 2006BeZZ, 2005BeZV, 2002Bl08, 1981Ho28, 1979Ho16, 1979Mi03, 1973Al18, 1967Bi03.

^{207}Pb Levels

Energies of the neutron resonances are in the lab system. 2007Bo24 list all energies to nearest tenth of an eV. Due to data-field limitation, the resonances above 100 keV are rounded to nearest eV by the evaluators.

E(level)†	Jπ‡	L†	gΓnΓγ/Γ (eV)†	Comments
0	1/2−			Jπ: From the Adopted Levels.
569.703	5/2−			E(level),Jπ: From the Adopted Levels.
S(n)-10	1/2+	0		gΓn=76.5 eV, gΓγ=0.53 eV.
S(n)+3.3576	3/2−	1	0.116 *1*	gΓn=0.570 eV *4*, gΓγ=0.146 eV *1*. Iγ6738=40 *2*, Iγ6169=5 *2*, Iγ5841=15 *2*, Iγother=40.
S(n)+10.8637	3/2−	1	0.055 *7*	gΓn=0.065 eV *6*. Iγ6169=85 *4*, Iγother=15.
S(n)+11.2957	1/2−	1	0.041 *1*	gΓn=0.042 eV *1*. Iγ6738=100 *3*, Iγother=0.0.
S(n)+14.218	1/2−	1	0.124 *1*	gΓn=1.56 eV *3*, gΓγ=0.135 eV *2*. Iγ6738=12 *2*, Iγ5841=58 *4*, Iγother=30.
S(n)+16.4264	1/2+	0	0.597 *6*	gΓn=0.788 eV *5*. Iγ6738=75 *4*, Iγ5841=25 *3*, Iγother=0.
S(n)+19.7411	3/2−	1	0.133 *2*	gΓn=2.58 eV *6*, gΓγ=0.140 eV *2*. Iγ6169=25 *3*, Iγ5841=70 *5*, Iγother=5.
S(n)+19.8055	3/2−	1	0.130 *2*	gΓn=0.161 eV *3*. Iγ6169=65 *4*, Iγother=35.
S(n)+21.8791	3/2−	1	0.235 *3*	gΓn=1.75 eV *6*, gΓγ=0.271 eV *4*. Iγ6738=8 *2*, Iγ6169=47 *3*, Iγother=45.
S(n)+25.1088	3/2−	1	0.390 *10*	gΓn=1.24 eV *6*, gΓγ=0.568 eV *16*. Iγ6738=52 *2*, Iγ6169=8 *2*, Iγother=40.
S(n)+25.4242	1/2−	1	0.289 *2*	gΓn=48.86 eV *10*, gΓγ=0.291 eV *2*. Iγ6738=10 *2*, Iγ6169=65 *3*, Iγother=25.
S(n)+32.1991	3/2−	1	0.049 *2*	gΓn=0.053 eV *2*. Iγ6169=5 *2*, Iγ5841=15 *5*, Iγother=80.
S(n)+36.2109	1/2−	1	0.278 *3*	gΓn=35.71 eV *18*, gΓγ=0.280 eV *3*. Iγ6738=8 *1*, Iγ6169=70 *4*, Iγ5841=7 *2*, Iγother=15.
S(n)+37.4644	3/2−	1	0.365 *9*	gΓn=1.78 eV *13*, gΓγ=0.460 eV *11*. Iγ6738=25 *2*, Iγ6169=50 *3*, Iγother=25.
S(n)+39.0368	3/2−	1	0.103 *3*	gΓn=0.121 eV *4*. Iγ6738=3 *1*, Iγ6169=27 *4*, Iγ5841=48 *4*, Iγother=0.22.
S(n)+40.6473	1/2−	1	0.134 *5*	gΓn=0.88 eV *13*, gΓγ=0.158 eV *5*. Iγ6169=22 *3*, Iγ5841=60 *3*, Iγother=18.
S(n)+42.0711	3/2−	1	0.73 *4*	gΓn=1.97 eV *16*, gΓγ=1.17 eV *8*. Iγ6169=15 *2*, Iγ5841=60 *3*, Iγother=25.
S(n)+47.5018	1/2−	1	0.111 *2*	gΓn=83.2 eV *3*, gΓγ=0.111 eV *2*. Iγ6738=8 *2*, Iγ6169=55 *4*, Iγ5841=15 *3*, Iγother=22.
S(n)+47.544			0.102 *7*	
S(n)+53.9053	3/2−	1	0.158 *3*	gΓn=13.1 eV *3*, gΓγ=0.159 eV *3*. Iγ6738=10 *2*, Iγ6169=30 *3*, Iγ5841=35 *3*, Iγother=25.

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^{206}Pb(n,γ) E=res 2007Bo24 (continued)

^{207}Pb Levels (continued)

E(level)†	Jπ‡	L†	gΓnΓγ/Γ (eV)†	Comments
S(n)+59.2207			0.644 *15*	Iγ6169=8 *2*, Iγ5841=54 *2*, Iγother=38.
S(n)+63.9516	5/2+	2	0.565 *15*	gΓn=3.3 eV *3*, gΓγ=0.680 eV *17*. Iγ6169=45 *3*, Iγ5841=10 *3*, Iγother=45.
S(n)+65.996	1/2+	0	1.375 *17*	gΓn=82.2 eV *4*, gΓγ=1.398 eV *18*. Iγ6738=100 *2*, Iγother<4.
S(n)+66.5843	3/2−	1	0.356 *6*	gΓn=19.1 eV *5*, gΓγ=0.363 eV *6*. Iγ6738=3 *1*, Iγ6169=50 *5*, Iγ5841=37 *5*, Iγother=10.
S(n)+67.4932			0.029 *3*	
S(n)+70.2834	1/2−	1	0.085 *3*	gΓn=10.8 eV *4*, gΓγ=0.086 eV *3*.
S(n)+78.0092	3/2−	1	0.057 *5*	gΓn=6.7 eV *5*, gΓγ=0.058 eV *5*.
S(n)+80.1731			0.17 *12*	
S(n)+80.3667	3/2+	2	2.141 *16*	gΓn=14.0 eV, gΓγ=2.526 eV *22*.
S(n)+80.8878			0.050	
S(n)+82.714			0.20 *12*	
S(n)+82.9132	3/2+	2	0.230 *7*	gΓn=16.0 eV, gΓγ=0.233 eV *7*.
S(n)+83.6135			0.55 *29*	
S(n)+86.1224	1/2−	1	0.070 *5*	gΓn=16.0 eV, gΓγ=0.070 eV *6*.
S(n)+88.4442	5/2+	2	1.156 *13*	gΓn=24.0 eV, gΓγ=1.214 eV *14*.
S(n)+90.1245	3/2−	1	0.102 *8*	gΓn=150.0 eV, gΓγ=0.102 eV *8*.
S(n)+91.7331			0.55 *11*	
S(n)+92.612	1/2+	0	1.436 *16*	gΓn=32.0 eV, gΓγ=1.503 eV *17*.
S(n)+94.7429	3/2+	2	0.555 *8*	gΓn=14.0 eV, gΓγ=0.578 eV *8*.
S(n)+99.721			0.044	
S(n)+101.209	5/2+	2	0.277 *3*	gΓn=24.0 eV, gΓγ=0.280 eV *4*.
S(n)+104.252	1/2−	1	0.150 *2*	gΓn=65.0 eV, gΓγ=0.151 eV *2*.
S(n)+105.150			0.047	
S(n)+109.216			0.072 *8*	
S(n)+111.139	3/2−	1	0.155 *2*	gΓn=60.0 eV, gΓγ=0.155 eV *2*.
S(n)+113.028			0.053	
S(n)+114.359	3/2−	1	0.93 *8*	gΓn=5.0 eV, gΓγ= 1.15 eV *12*.
S(n)+114.525	5/2+	2	1.130 *18*	gΓn=16.8 eV, gΓγ=1.211 eV *21*.
S(n)+115.728	3/2−	1	0.167 *9*	gΓn=11.4 eV, gΓγ=0.169 eV *9*.
S(n)+117.978	5/2+	2	1.017 *15*	gΓn=15.3 eV, gΓγ=1.090 eV *17*.
S(n)+123.119	1/2−	1	0.129 *10*	gΓn=35.0 eV, gΓγ=0.129 eV *10*.
S(n)+123.685			0.242 *18*	
S(n)+124.596	3/2+	2	3.38 *3*	gΓn=300.0 eV, gΓγ=3.68 eV *4*.
S(n)+124.774			0.091	
S(n)+125.236	3/2+	2	7.23 *4*	gΓn=42.0 eV, gΓγ=8.73 eV *6*.
S(n)+126.038			0.390	
S(n)+127.885			0.073 *15*	
S(n)+140.061			0.16 *7*	
S(n)+140.541	3/2+	2	2.99 *3*	gΓn=206.0 eV, gΓγ=3.04 eV *3*.
S(n)+140.910	3/2−	1	0.132 *3*	gΓn=56.0 eV, gΓγ=0.132 eV *3*.
S(n)+141.947			0.107	
S(n)+142.313	1/2−	1	0.140 *12*	gΓn=12.0 eV, gΓγ=0.142 eV *13*.
S(n)+144.709	3/2+	2	0.272 *15*	gΓn=6.2 eV, gΓγ= 0.284 eV *17*.
S(n)+146.272	1/2+	0	4.98 *4*	gΓn=176.0 eV, gΓγ=5.13 eV *4*.
S(n)+149.896	3/2−	1	0.095 *25*	gΓn=1194.2 eV, gΓγ=0.095 eV *25*.
S(n)+150.622	1/2−	1	0.248 *14*	gΓn=4.4 eV, gΓγ= 0.263 eV *16*.
S(n)+151.052	5/2+	2	1.537 *23*	gΓn=57.0 eV, gΓγ=1.579 eV *25*.
S(n)+152.098	5/2+	2	0.217 *12*	gΓn=1.5 eV, gΓγ= 0.254 eV *16*.
S(n)+153.200	1/2−	1	0.224 *16*	gΓn=10.0 eV, gΓγ=0.229 eV *16*.
S(n)+153.458			0.168 *14*	
S(n)+155.272			0.32 *3*	
S(n)+159.973	3/2−	1	0.107 *13*	gΓn=136.0 eV, gΓγ=0.107 eV *13*.
S(n)+161.569	5/2+	2	0.275 *12*	gΓn=1.8 eV, gΓγ= 0.325 eV *17*.

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^{206}Pb(n,γ) E=res 2007Bo24 (continued)

^{207}Pb Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	L[†]	g$\Gamma_n\Gamma_\gamma/\Gamma$ (eV)[†]	Comments
S(n)+169.432			0.81 *5*	
S(n)+172.712	3/2$^-$	1	0.280 *16*	gΓ_n=146.0 eV, gΓ_γ=0.280 eV *16*.
S(n)+173.705	3/2$^+$	2	0.700 *20*	gΓ_n=94.0 eV, gΓ_γ=0.705 eV *21*.
S(n)+175.598	3/2$^-$	1	0.26 *3*	gΓ_n=26.0 eV, gΓ_γ=0.26 eV *3*.
S(n)+175.920			0.315	
S(n)+177.551			0.688 *23*	
S(n)+181.122	3/2$^-$	1	0.232 *15*	gΓ_n=54.0 eV, gΓ_γ=0.233 eV *16*.
S(n)+183.286			0.186	
S(n)+185.275			0.159	
S(n)+189.457	3/2$^-$	1	0.470 *23*	gΓ_n=400.0 eV, gΓ_γ=0.470 eV *23*.
S(n)+189.794			0.04 *3*	
S(n)+191.243	1/2$^-$	1	0.667 *24*	gΓ_n=97.0 eV, gΓ_γ=0.671 eV *24*.
S(n)+193.417			0.114 *16*	
S(n)+196.879	1/2$^-$	1	0.128 *19*	gΓ_n=64.0 eV, gΓ_γ=0.128 eV *19*.
S(n)+196.905			0.127 *21*	
S(n)+198.445	3/2$^+$	2	5.97 *6*	gΓ_n=264.0 eV, gΓ_γ=6.11 eV *6*.
S(n)+199.677			0.249	
S(n)+200.639	3/2$^-$	1	1.60 *3*	gΓ_n=24.0 eV, gΓ_γ=1.71 eV *4*.
S(n)+202.965			0.140	
S(n)+204.153	3/2$^+$	2	1.28 *3*	gΓ_n=470.0 eV, gΓ_γ=1.29 eV *3*.
S(n)+209.509	1/2$^+$	0	1.229 *21*	gΓ_n=2173.0 eV, gΓ_γ=1.230 eV *21*.
S(n)+209.946			0.847	
S(n)+211.794			0.026	
S(n)+213.790	3/2$^+$	2	0.892 *25*	gΓ_n=44.0 eV, gΓ_γ=0.91 eV *3*.
S(n)+217.197			0.21 *4*	
S(n)+217.216	3/2$^-$	1	0.169 *20*	gΓ_n=20.0 eV, gΓ_γ=0.171 eV *20*.
S(n)+217.554	1/2$^-$	1	0.123 *20*	gΓ_n=22.0 eV, gΓ_γ=0.124 eV *20*.
S(n)+218.054	1/2$^-$	1	0.091 *17*	gΓ_n=6.2 eV, gΓ_γ= 0.092 eV *18*.
S(n)+220.804	1/2$^+$	0	0.70 *5*	gΓ_n=1407.0 eV, gΓ_γ=0.70 eV *5*.
S(n)+223.254			0.062	
S(n)+226.037			0.33 *5*	
S(n)+227.951			0.72 *4*	
S(n)+229.011	3/2$^-$	1	0.083 *20*	gΓ_n=70.0 eV, gΓ_γ=0.083 eV *20*.
S(n)+230.248	5/2$^+$	2	0.518 *24*	gΓ_n=120.0 eV, gΓ_γ=0.520 eV *25*.
S(n)+231.212			0.47 *4*	
S(n)+233.144			0.25 *3*	
S(n)+235.422	3/2$^+$	2	2.71 *5*	gΓ_n=214.0 eV, gΓ_γ=2.74 eV *5*.
S(n)+239.627			0.135 *21*	
S(n)+240.746			0.38 *3*	
S(n)+241.445	3/2$^-$	1	1.46 *4*	gΓ_n=78.0 eV, gΓ_γ=1.49 eV *4*.
S(n)+243.208			0.76 *4*	
S(n)+244.987			0.225 *23*	
S(n)+250.818	5/2$^+$	2	0.53 *3*	gΓ_n=156.0 eV, gΓ_γ=0.53 eV *3*.
S(n)+253.716			0.141	
S(n)+254.703			0.14 *3*	
S(n)+257.430	1/2$^+$	0	0.89 *6*	gΓ_n=1427.0 eV, gΓ_γ=0.89 eV *6*.
S(n)+260.675			1.0 *4*	
S(n)+263.093	3/2$^-$	1	0.24 *3*	gΓ_n=108.0 eV, gΓ_γ=0.24 eV *3*.
S(n)+265.563	3/2$^+$	2	1.67 *4*	gΓ_n=80.0 eV, gΓ_γ=1.70 eV *4*.
S(n)+268.387	3/2$^-$	1	0.12 *3*	gΓ_n=212.0 eV, gΓ_γ=0.12 eV *3*.
S(n)+269.638	3/2$^+$	2	0.11 *3*	gΓ_n= 106.0 eV, gΓ_γ=0.11 eV *3*.
S(n)+271.509			0.117 *22*	
S(n)+273.603			0.155	
S(n)+274.391	1/2$^-$	1	0.55 *3*	gΓ_n=32.0 eV, gΓ_γ=0.55 eV *3*.
S(n)+276.567	3/2$^+$	2	6.36 *8*	gΓ_n=224.0 eV, gΓ_γ=6.54 eV *8*.
S(n)+278.374	5/2$^+$	2	0.90 *4*	gΓ_n=299.9 eV, gΓ_γ=0.90 eV *4*.

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^{206}Pb(n,γ) E=res 2007Bo24 (continued)

^{207}Pb Levels (continued)

E(level)†	Jπ‡	L†	gΓnΓγ/Γ (eV)†	Comments
S(n)+280.579	1/2−	1	1.13 *5*	gΓn=171.0 eV, gΓγ=1.14 eV *5*.
S(n)+289.502			1.32 *5*	
S(n)+292.045			0.34 *4*	
S(n)+293.878	3/2−	1	0.11 *3*	gΓn=220.0 eV, gΓγ=0.11 eV *3*.
S(n)+295.194			0.200	
S(n)+297.685	1/2+	0	1.27 *5*	gΓn=113.0 eV, gΓγ=1.28 eV *5*.
S(n)+298.594			0.216	
S(n)+299.690	1/2+	1	1.01 *5*	gΓn=62.0 eV, gΓγ=1.03 eV *5*.
S(n)+299.736			0.184	
S(n)+303.828			1.909	
S(n)+306.400	1/2−	1	0.15 *3*	gΓn=73.0 eV, gΓγ=0.15 eV *3*.
S(n)+311.405	5/2+	2	0.16 *3*	gΓn=6.6 eV, gΓγ= 0.17 eV *3*.
S(n)+313.282	3/2+	2	2.37 *6*	gΓn=44.0 eV, gΓγ=2.50 eV *7*.
S(n)+314.263	5/2+	2	2.51 *6*	gΓn=536.7 eV, gΓγ=2.53 eV *6*.
S(n)+317.083			0.150	
S(n)+319.234	3/2+	2	1.78 *6*	gΓn=328.0 eV, gΓγ=1.79 eV *6*.
S(n)+320.657			0.272	
S(n)+324.392	3/2−	1	0.50 *4*	gΓn=109.9 eV, gΓγ=0.51 eV *4*.
S(n)+325.568	1/2−	1	0.16 *4*	gΓn=49.0 eV, gΓγ=0.16 eV *4*.
S(n)+328.190	3/2−	1	1.08 *5*	gΓn=88.1 eV, gΓγ=1.09 eV *5*.
S(n)+328.424	5/2+	2	0.70 *5*	gΓn=18.9 eV, gΓγ=0.72 eV *5*.
S(n)+330.412			0.20 *6*	
S(n)+333.063			1.60 *6*	
S(n)+335.564			0.271	
S(n)+336.632	3/2+	2	0.37 *4*	gΓn=255.8 eV, gΓγ=0.37 eV *4*.
S(n)+339.209	5/2+	2	0.71 *5*	gΓn=47.9 eV, gΓγ=0.72 eV *5*.
S(n)+340.131	1/2+	0	4.67 *5*	gΓn=10870.0 eV, gΓγ=4.67 eV *5*.
S(n)+340.205	5/2+	2	0.29 *4*	gΓn=48.0 eV, gΓγ=0.29 eV *4*.
S(n)+341.780	3/2+	2	1.35 *6*	gΓn=347.8 eV, gΓγ=1.35 eV *6*.
S(n)+343.970	3/2+	2	0.27 *5*	gΓn=169.9 eV, gΓγ=0.27 eV *5*.
S(n)+345.286	5/2+	2	1.14 *5*	gΓn=227.9 eV, gΓγ=1.14 eV *5*.
S(n)+346.588			0.24 *8*	
S(n)+348.018			0.18 *5*	
S(n)+350.811	3/2+	2	3.97 *9*	gΓn=423.8 eV, gΓγ=4.01 eV *9*.
S(n)+355.634	1/2+	0	5.87 *17*	gΓn=5302.0 eV, gΓγ=5.87 eV *17*.
S(n)+356.689	5/2+	2	1.68 *7*	gΓn=92.9 eV, gΓγ=1.71 eV *7*.
S(n)+357.730	3/2+	2	1.90 *8*	gΓn=909.4 eV, gΓγ=1.90 eV *8*.
S(n)+361.692	1/2−	1	0.52 *6*	gΓn=80.0 eV, gΓγ=0.52 eV *6*.
S(n)+362.441	3/2+	2	1.28 *6*	gΓn=195.9 eV, gΓγ=1.29 eV *6*.
S(n)+362.957	3/2−	1	0.53 *6*	gΓn=72.0 eV, gΓγ=0.53 eV *6*.
S(n)+363.764	3/2−	1	0.28 *5*	gΓn=67.9 eV, gΓγ=0.28 eV *5*.
S(n)+368.380			0.45 *13*	
S(n)+370.277	3/2+	2	0.95 *6*	gΓn=90.0 eV, gΓγ=0.96 eV *6*.
S(n)+371.089	1/2−	1	0.15 *5*	gΓn=40.0 eV, gΓγ=0.15 eV *5*.
S(n)+374.553			0.50 *6*	
S(n)+376.644	5/2+	2	0.52 *6*	gΓn=572.7 eV, gΓγ=0.52 eV *6*.
S(n)+378.158	1/2+	0	2.87 *5*	gΓn=4419.0 eV, gΓγ=2.87 eV *5*.
S(n)+378.196			0.478	
S(n)+383.982	5/2+	2	1.29 *7*	gΓn=843.0 eV, gΓγ=1.30 eV *7*.
S(n)+385.451	1/2−	1	0.46 *6*	gΓn=157.1 eV, gΓγ=0.47 eV *6*.
S(n)+386.782	3/2+	2	1.97 *8*	gΓn=158.0 eV, gΓγ=2.00 eV *8*.
S(n)+389.556	1/2+	0	2.44 *14*	gΓn=4365.0 eV, gΓγ=2.44 eV *14*.
S(n)+393.352			0.66 *12*	
S(n)+396.766			1.93 *11*	
S(n)+400.102	5/2+	2	2.03 *8*	gΓn=414.9 eV, gΓγ=2.04 eV *8*.
S(n)+403.849	1/2−	1	0.56 *6*	gΓn=173.0 eV, gΓγ=0.57 eV *6*.

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^{206}Pb(n,γ) E=res 2007Bo24 (continued)

^{207}Pb Levels (continued)

E(level)†	Jπ‡	L†	gΓnΓγ/Γ (eV)†	Comments
S(n)+405.752	5/2+	2	5.52 *11*	gΓn=306.0 eV, gΓγ=5.62 eV *11*.
S(n)+407.143	3/2+	2	5.25 *11*	gΓn=141.9 eV, gΓγ=5.45 eV *11*.
S(n)+408.039	1/2−	1	0.54 *6*	gΓn=44.0 eV, gΓγ=0.55 eV *7*.
S(n)+412.274	1/2−	1	0.45 *6*	gΓn=126.0 eV, gΓγ=0.46 eV *6*.
S(n)+414.769	3/2+	2	1.80 *8*	gΓn=99.9 eV, gΓγ=1.83 eV *8*.
S(n)+416.249	5/2+	2	6.11 *12*	gΓn=920.7 eV, gΓγ=6.15 eV *12*.
S(n)+417.033	1/2+	0	5.12 *23*	gΓn=6341.0 eV, gΓγ=5.13 eV *23*.
S(n)+420.076	5/2+	2	0.94 *7*	gΓn=102.0 eV, gΓγ=0.95 eV *7*.
S(n)+421.561			0.24 *17*	
S(n)+425.900	3/2+	2	5.15 *13*	gΓn=1043.0 eV, gΓγ=5.17 eV *13*.
S(n)+426.498	5/2+	2	1.07 *9*	gΓn=50.9 eV, gΓγ=1.09 eV *9*.
S(n)+427.947	1/2−	1	0.43 *7*	gΓn=127.8 eV, gΓγ=0.44 eV *7*.
S(n)+429.864	1/2+	0	0.77 *6*	gΓn=129.0 eV, gΓγ=0.77 eV *7*.
S(n)+433.259	5/2+	2	7.59 *13*	gΓn=140.9 eV, gΓγ=8.02 eV *15*.
S(n)+433.850	3/2+	2	2.07 *12*	gΓn=116.1 eV, gΓγ=2.10 eV *12*.
S(n)+435.430			1.6 *3*	
S(n)+438.151			0.36 *23*	
S(n)+439.366	1/2−	1	0.51 *6*	gΓn=36.0 eV, gΓγ=0.52 eV *7*.
S(n)+441.142	3/2+	2	0.93 *8*	gΓn=218.0 eV, gΓγ=0.94 eV *8*.
S(n)+442.013	5/2+	2	3.02 *9*	gΓn=42.0 eV, gΓγ=3.25 eV *11*.
S(n)+444.269	5/2+	2	0.39 *6*	gΓn=32.9 eV, gΓγ=0.40 eV *6*.
S(n)+445.441	3/2−	1	0.23 *6*	gΓn=353.4 eV, gΓγ=0.23 eV *6*.
S(n)+446.327	5/2+	2	0.61 *7*	gΓn=35.9 eV, gΓγ=0.62 eV *7*.
S(n)+448.619			0.20 *16*	
S(n)+452.003	5/2+	2	1.52 *9*	gΓn=108.1 eV, gΓγ=1.54 eV *9*.
S(n)+452.195	3/2+	2	0.39 *13*	gΓn=87.9 eV, gΓγ=0.39 eV *13*.
S(n)+452.602	5/2+	2	1.78 *10*	gΓn=16.5 eV, gΓγ=2.00 eV *12*.
S(n)+453.413	1/2−	1	0.39 *7*	gΓn=59.0 eV, gΓγ=0.39 eV *7*.
S(n)+454.508	3/2−	1	0.223 *23*	gΓn=50.0 eV, gΓγ=0.224 eV *22*.
S(n)+455.471	1/2+	0	1.89 *8*	gΓn=42.0 eV, gΓγ=1.98 eV *9*.
S(n)+458.225	1/2−	1	0.30 *6*	gΓn=43.0 eV, gΓγ=0.31 eV *6*.
S(n)+459.950	5/2+	2	0.34 *6*	gΓn=48.0 eV, gΓγ=0.34 eV *6*.
S(n)+461.731	3/2−	1	0.10 *6*	gΓn=30.0 eV.
S(n)+462.155	5/2+	2	0.48 *5*	gΓn=27.0 eV, gΓγ=0.49 eV *5*.
S(n)+466.009			172 *4*	
S(n)+467.507	3/2−	1	11.5 *16*	gΓn=180.0 eV, gΓγ=12.3 eV *18*.
S(n)+470.955	3/2+	2	5.75 *13*	gΓn=321.8 eV, gΓγ=5.85 eV *13*.
S(n)+471.787	3/2−	1	0.044	gΓn=124.0 eV.
S(n)+472.765	5/2−	3	1.15 *7*	gΓn=123.0 eV, gΓγ=1.16 eV *7*.
S(n)+474.874			1.425	
S(n)+476.608	1/2+	0	2.73 *11*	gΓn=373.7 eV, gΓγ=2.75 eV *11*.
S(n)+478.305			0.78 *16*	
S(n)+481.347	1/2+	0	1.8 *5*	gΓn=9061.0 eV, gΓγ=1.8 eV *5*.
S(n)+481.720			0.517	
S(n)+483.732	1/2−	1	0.83 *8*	gΓn=101.9 eV, gΓγ=0.84 eV *8*.
S(n)+485.488	5/2+	2	2.63 *9*	gΓn=98.9 eV, gΓγ=2.70 eV *10*.
S(n)+488.593			0.36 *15*	
S(n)+489.498	5/2+	2	0.9 *6*	gΓn=42.1 eV.
S(n)+490.504	3/2+	2	6.37 *17*	gΓn=147.9 eV, gΓγ=6.65 eV *18*.
S(n)+493.562	5/2+	2	1.04 *8*	gΓn=86.9 eV, gΓγ=1.05 eV *8*.
S(n)+495.962	3/2+	2	1.48 *9*	gΓn=38.0 eV, gΓγ=1.54 eV *9*.
S(n)+498.025	1/2−	1	1.15 *8*	gΓn=289.4 eV, gΓγ=1.15 eV *8*.
S(n)+501.378	3/2−	1	1.35 *12*	gΓn=52.1 eV, gΓγ=1.39 eV *12*.
S(n)+501.991	5/2+	2	3.69 *13*	gΓn=456.0 eV, gΓγ=3.72 eV *14*.
S(n)+503.105	3/2+	2	1.37 *10*	gΓn=64.1 eV, gΓγ=1.40 eV *10*.
S(n)+504.224			0.72 *12*	

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^{206}Pb(n,γ) E=res 2007Bo24 (continued)

^{207}Pb Levels (continued)

E(level)†	Jπ‡	L†	gΓnΓγ/Γ (eV)†	Comments
S(n)+506.719			1.34 *18*	
S(n)+510.007	5/2+	2	1.82 *12*	gΓn=267.0 eV, gΓγ=1.83 eV *13*.
S(n)+510.619	3/2+	2	2.74 *14*	gΓn=171.9 eV, gΓγ=2.78 eV *15*.
S(n)+511.396	5/2+	2	2.6 *14*	gΓn=47.9 eV.
S(n)+511.397	3/2−	1	0.414	gΓn=246.0 eV.
S(n)+511.781	1/2+	0	2.58 *15*	gΓn=160.0 eV, gΓγ=2.63 eV *15*.
S(n)+513.593	1/2−	1	0.46 *8*	gΓn=4.2 eV, gΓγ= 0.51 eV *9*.
S(n)+515.548	5/2+	2	0.57 *8*	gΓn=20.4 eV, gΓγ=0.59 eV *8*.
S(n)+517.677	1/2−	1	1.06 *9*	gΓn=110.2 eV, gΓγ=1.07 eV *9*.
S(n)+519.140	5/2+	2	0.65 *7*	gΓn=65.9 eV, gΓγ=0.66 eV *7*.
S(n)+520.483	5/2+	2	0.52 *9*	gΓn=562.8 eV, gΓγ=0.52 eV *9*.
S(n)+521.696	1/2+	0	3.00 *12*	gΓn=55.0 eV, gΓγ=3.18 eV *13*.
S(n)+523.729	3/2+	2	3.18 *12*	gΓn=321.8 eV, gΓγ=3.21 eV *12*.
S(n)+529.838	5/2+	2	0.31 *8*	gΓn=53.8 eV, gΓγ=0.31 eV *8*.
S(n)+530.769	1/2+	0	0.98 *11*	gΓn=390.5 eV, gΓγ=0.98 eV *11*.
S(n)+532.054	5/2+	2	1.45 *10*	gΓn=101.8 eV, gΓγ=1.48 eV *11*.
S(n)+533.730	5/2+	2	3.11 *12*	gΓn=179.9 eV, gΓγ=3.17 eV *12*.
S(n)+535.614	1/2−	1	0.55 *8*	gΓn=62.1 eV, gΓγ=0.56 eV *8*.
S(n)+537.404	3/2−	1	0.48 *8*	gΓn=126.2 eV, gΓγ=0.49 eV *8*.
S(n)+539.134	5/2+	2	0.76 *6*	gΓn=92.4 eV, gΓγ=0.77 eV *6*.
S(n)+541.301	3/2+	2	1.40 *11*	gΓn=1032.6 eV, gΓγ=1.40 eV *11*.
S(n)+544.008			1.40 *18*	
S(n)+546.997	5/2+	2	0.59 *5*	gΓn=22.0 eV, gΓγ=0.61 eV *5*.
S(n)+548.171	1/2+	0	3.12 *20*	gΓn=3096.0 eV, gΓγ=3.12 eV *20*.
S(n)+549.940	3/2−	1	0.30 *9*	gΓn=63.9 eV, gΓγ=0.31 eV *9*.
S(n)+551.678	5/2+	2	1.61 *10*	gΓn=155.8 eV, gΓγ=1.62 eV *10*.
S(n)+555.776	3/2+	2	0.60 *9*	gΓn=26.1 eV, gΓγ=0.61 eV *9*.
S(n)+557.642	1/2−	1	1.62 *10*	gΓn=120.1 eV, gΓγ=1.65 eV *10*.
S(n)+559.461			0.54 *11*	
S(n)+561.437			0.53 *10*	
S(n)+563.624	3/2−	1	2.11 *12*	gΓn=506.4 eV, gΓγ=2.12 eV *12*.
S(n)+564.809	1/2−	1	1.03 *11*	gΓn=14.0 eV, gΓγ=1.11 eV *12*.
S(n)+566.294	5/2+	2	2.63 *12*	gΓn=30.0 eV, gΓγ=2.89 eV *14*.
S(n)+568.559			0.78 *25*	
S(n)+570.746	3/2+	2	0.85 *16*	gΓn=112.0 eV, gΓγ=0.85 eV *16*.
S(n)+572.599	5/2+	2	13.9 *3*	gΓn=2382.0 eV, gΓγ=13.9 eV *3*.
S(n)+577.461	5/2+	2	0.36 *11*	gΓn=86.9 eV, gΓγ=0.36 eV *11*.
S(n)+578.533	3/2+	2	0.58 *9*	gΓn=71.9 eV, gΓγ=0.59 eV *10*.
S(n)+579.662	3/2+	2	1.67 *13*	gΓn=46.0 eV, gΓγ=1.73 eV *14*.
S(n)+580.627	5/2+	2	1.66 *13*	gΓn=623.1 eV, gΓγ=1.66 eV *13*.
S(n)+582.206	3/2−	1	0.69 *10*	gΓn=222.0 eV, gΓγ=0.69 eV *10*.
S(n)+584.283			1.55 *14*	
S(n)+586.909			0.52 *21*	
S(n)+591.153	5/2+	2	1.87 *12*	gΓn=303.0 eV, gΓγ=1.89 eV *12*.
S(n)+592.704			1.46 *21*	
S(n)+595.426	5/2+	2	2.12 *12*	gΓn=33.0 eV, gΓγ=2.26 eV *14*.
S(n)+596.043	1/2−	1	0.71 *14*	gΓn=84.0 eV, gΓγ=0.72 eV *14*.
S(n)+597.326	3/2−	1	2.73 *14*	gΓn=221.8 eV, gΓγ=2.76 eV *15*.
S(n)+598.131	5/2+	2	1.98 *12*	gΓn=86.9 eV, gΓγ=2.03 eV *12*.
S(n)+600.060	3/2−	1	0.74 *11*	gΓn=44.0 eV, gΓγ=0.75 eV *11*.
S(n)+601.680	5/2+	2	0.67 *10*	gΓn=10.5 eV, gΓγ=0.72 eV *12*.
S(n)+603.144	3/2+	2	1.15 *11*	gΓn=84.0 eV, gΓγ=1.16 eV *11*.
S(n)+605.643	1/2−	1	1.19 *11*	gΓn=75.0 eV, gΓγ=1.21 eV *12*.
S(n)+608.557	3/2+	2	4.38 *18*	gΓn=653.6 eV, gΓγ=4.41 eV *18*.
S(n)+609.877	1/2+	0	3.79 *17*	gΓn=3144.0 eV, gΓγ=3.79 eV *17*.
S(n)+611.420	3/2+	2	4.67 *19*	gΓn=399.2 eV, gΓγ=4.72 eV *20*.

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^{206}Pb(n,γ) E=res 2007Bo24 (continued)

^{207}Pb Levels (continued)

E(level)†	Jπ‡	L†	gΓnΓγ/Γ (eV)†	Comments
S(n)+612.277	3/2−	1	0.751	gΓn=224.0 eV.
S(n)+612.287	3/2+	2	3.95 *20*	gΓn=420.2 eV, gΓγ=3.98 eV *21*.
S(n)+614.093	5/2+	2	1.87 *16*	gΓn=383.4 eV, gΓγ=1.88 eV *16*.
S(n)+615.481	5/2+	2	3.51 *20*	gΓn=1127.7 eV, gΓγ=3.53 eV *20*.
S(n)+615.938	3/2+	2	2.60 *19*	gΓn=249.8 eV, gΓγ=2.63 eV *19*.
S(n)+616.864	3/2−	1	1.07 *15*	gΓn=142.1 eV, gΓγ=1.08 eV *15*.
S(n)+618.409	5/2+	2	1.47 *12*	gΓn=18.9 eV, gΓγ=1.59 eV *15*.
S(n)+618.541	3/2+	2	0.54 *13*	gΓn=37.8 eV, gΓγ=0.55 eV *13*.
S(n)+623.000	5/2+	2	3.57	gΓn=1263.0 eV, gΓγ=3.58 eV.
S(n)+623.900	1/2−	1	0.34	gΓn=232.0 eV, gΓγ=0.34 eV.

† From 2007Bo24, unless otherwise noted. Sn(^{207}Pb)=6737.78 keV *9* (2003Au03).
‡ From L.

γ(^{207}Pb)

Eγ†	Ei(level)	Jiπ	Comments
6193.5	S(n)+25.4242	1/2−	B(E2)↓: 0.00257 11 (2007BO24). Γγ,570=0.189 eV *8* (2007BO24).
6204.3	S(n)+36.2109	1/2−	B(E2)↓: 0.00264 11 (2007BO24). Γγ,570=0.196 eV *8* (2007BO24).
6215.6	S(n)+47.5018	1/2−	B(E2)↓: 0.00081 7 (2007BO24). Γγ,570=0.061 eV *5* (2007BO24).

† From the energy level difference.