

$^{84}\text{Kr}(n,\gamma),(n,n)$:resonances **2006MuZX**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen		NDS 116, 1 (2014)	31-Dec-2013

2006MuZX: Compilation of thermal neutron induced σ and resonance parameter data for nuclei of $Z=1-100$.

 ^{85}Kr Levels

All resonance parameters including resonance neutron energies, J^π , L , $g\Gamma_n$ and Γ_γ are from the **2006MuZX** evaluation;
 $g=(2J+1)/2$.

E(level) [†]	J^π	L	$g\Gamma_n\Gamma_\gamma/\Gamma$ (eV)	Comments
7112.81	1/2 ⁺	0		E(n)(lab)=0.519 20. $\Gamma_\gamma=0.113$ eV 20, $g\Gamma_n=0.35$ eV 7.
7113.45	(1/2)	1	0.00608 3	E(n)(lab)=1.16 8. $g\Gamma_n=0.00630$ eV 3.
7113.69	1/2 ⁺	0	0.1301 2	E(n)(lab)=1.404 2. $\Gamma_\gamma=0.1401$ eV 2, $g\Gamma_n=1.812$ eV 4.
7114.49	1/2 ⁺	0	0.1291 3	E(n)(lab)=2.218. $\Gamma_\gamma=0.1298$ eV 3, $g\Gamma_n=22.73$ eV 2.
7115.05	[3/2]	[1]	0.3711 5	E(n)(lab)=2.785. $\Gamma_\gamma=0.270$ eV 5, $g\Gamma_n=1.185$ eV 7.
7117.54	1/2 ⁺	0	0.0927 4	E(n)(lab)=5.299. $\Gamma_\gamma=0.0945$ eV 4, $g\Gamma_n=4.63$ eV 3.
7117.88		[1]	0.1112 4	E(n)(lab)=5.642. $\Gamma_\gamma=0.196$ eV 1, $g\Gamma_n=0.261$ eV 11.
7119.02		[1]	0.185 1	E(n)(lab)=6.801. $\Gamma_\gamma=0.207$ eV 1. $g\Gamma_n=1.694$ eV 24.
7120.51	[3/2]	[1]	0.389 1	E(n)(lab)=8.308. $\Gamma_\gamma=0.226$ eV 1, $g\Gamma_n=2.836$ eV 19.
7123.13	1/2 ⁺	0	0.232 2	E(n)(lab)=10.963. $\Gamma_\gamma=0.232$ eV 2, $g\Gamma_n=126.30$ eV 24.
7123.54	[3/2]	[1]	0.372 1	E(n)(lab)=11.38. $\Gamma_\gamma=0.254$ eV 20, $g\Gamma_n=1.39$ eV 5.
7125.67			0.013 1	E(n)(lab)=13.528.
7125.97			0.027 1	E(n)(lab)=13.838.
7126.87	[3/2]	[1]	0.255 1	E(n)(lab)=14.743. $\Gamma_\gamma=0.160$ eV 2, $g\Gamma_n=1.26$ eV 4.
7127.57			0.054 1	E(n)(lab)=15.454.
7128.79	1/2 ⁺	0	0.347 1	E(n)(lab)=16.688. $\Gamma_\gamma=0.352$ eV 3, $g\Gamma_n=23.60$ eV 20.
7129.38	[1/2]	[1]	0.189 1	E(n)(lab)=17.287. $\Gamma_\gamma=0.210$ eV 2, $g\Gamma_n=1.91$ eV 11.
7130.85			0.013 1	E(n)(lab)=18.768.
7131.41			0.011 1	E(n)(lab)=19.344.
7132.04			0.242 2	E(n)(lab)=19.98.
7133.88	1/2		0.129 2	E(n)(lab)=21.835. $\Gamma_\gamma=0.131$ eV 2, $g\Gamma_n=8.22$ eV 23.
7134.02			0.023 1	E(n)(lab)=21.983.
7135.29			0.077 2	E(n)(lab)=23.268.
7136.30	1/2 ⁺	0	0.033 2	E(n)(lab)=24.289. $\Gamma_\gamma=0.033$ eV 2, $g\Gamma_n=9.1$ eV 3.
7136.37			0.251 2	E(n)(lab)=24.361.
7136.48	[1/2]	[1]	0.156 2	E(n)(lab)=24.465. $\Gamma_\gamma=0.157$ eV 2, $g\Gamma_n=41.24$ eV 20.
7136.65			0.145 2	E(n)(lab)=24.645.
7136.98			0.093 2	E(n)(lab)=24.977.
7138.11	1/2 ⁺	0	0.118 5	E(n)(lab)=26.116. $\Gamma_\gamma=0.118$ eV 5, $g\Gamma_n=145.0$ eV 14.
7138.21	[3/2]	[1]	0.349 3	E(n)(lab)=26.227. $\Gamma_\gamma=0.182$ eV 4, $g\Gamma_n=8.55$ eV 23.
7138.92			0.078 2	E(n)(lab)=26.935.
7139.61			0.062 2	E(n)(lab)=27.637.
7140.27			0.062 2	E(n)(lab)=28.306.
7141.06	[1/2]	[1]	0.279 3	E(n)(lab)=29.104. $\Gamma_\gamma=0.283$ eV 3, $g\Gamma_n=19.32$ eV 20.
7141.84			0.038 2	E(n)(lab)=29.897.
7142.98			0.192 3	E(n)(lab)=31.05.
7144.01			0.090 2	E(n)(lab)=32.09.
7144.93	1/2 ⁺	0	0.261 10	E(n)(lab)=33.02. $\Gamma_\gamma=0.261$ eV 10, $g\Gamma_n=412.6$ eV 25.
7145.83	[1/2]	[1]	0.274 5	E(n)(lab)=33.929. $\Gamma_\gamma=0.279$ eV 5. $g\Gamma_n=14.7$ eV 8.
7146.04			0.109 4	E(n)(lab)=34.147.
7146.18		[1]	0.280 5	E(n)(lab)=34.288. $\Gamma_\gamma=0.301$ eV 6, $g\Gamma_n=4.1$ eV 7.
7146.49	[1/2]	[1]	0.087 6	E(n)(lab)=34.597. $\Gamma_\gamma=0.088$ eV 6, $g\Gamma_n=10.0$ eV 8.
7146.57			0.269 6	E(n)(lab)=34.683.
7147.14			0.107 4	E(n)(lab)=35.256.

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$^{84}\text{Kr}(n,\gamma),(n,n)$:resonances 2006MuZX (continued) ^{85}Kr Levels (continued)

E(level) [†]	J ^π	L	$g\Gamma_n\Gamma_\gamma/\Gamma$ (eV)	Comments
7148.73			0.131 4	E(n)(lab)=36.87.
7150.47	1/2 ⁺	0	0.240 5	E(n)(lab)=38.626. $\Gamma_\gamma=0.242$ eV 5, $g\Gamma_n=29.4$ eV 9.
7151.58			0.233 4	E(n)(lab)=39.749.
7152.01			0.064 3	E(n)(lab)=40.184.
7152.40	[1/2]	[1]	0.177 4	E(n)(lab)=40.587. $\Gamma_\gamma=0.178$ eV 4, $g\Gamma_n=28.4$ eV 9.
7152.88	1/2 ⁺	0	0.236 5	E(n)(lab)=41.071. $\Gamma_\gamma=0.238$ eV 5, $g\Gamma_n=42.4$ eV 11.
7155.49	[3/2]	[1]	0.439 6	E(n)(lab)=43.709. $\Gamma_\gamma=0.221$ eV 6, $g\Gamma_n=84.7$ eV 6.
7155.80	[3/2]	[1]	0.471 5	E(n)(lab)=44.023. $\Gamma_\gamma=0.253$ eV 6, $g\Gamma_n=6.8$ eV 8.
7156.01			0.159 4	E(n)(lab)=44.238.
7156.38			0.190 4	E(n)(lab)=44.612.
7157.29			0.115 3	E(n)(lab)=45.526.
7158.94			0.151 4	E(n)(lab)=47.202.
7159.69			0.069 4	E(n)(lab)=47.954.
7160.05			0.225 4	E(n)(lab)=48.323.
7160.76	1/2 ⁺	0	0.113 4	E(n)(lab)=49.045. $\Gamma_\gamma=0.114$ eV 4, $g\Gamma_n=22.5$ eV 10.
7161.70		[1]	0.169 6	E(n)(lab)=49.992. $\Gamma_\gamma=0.169$ eV 6, $g\Gamma_n=89.6$ eV 17.
7161.90	[3/2]	[1]	0.427 8	E(n)(lab)=50.194. $\Gamma_\gamma=0.223$ eV 9, $g\Gamma_n=10.0$ eV 12.
7162.00			0.075 7	E(n)(lab)=50.296.
7162.92			0.213 5	E(n)(lab)=51.226.
7163.62	1/2 ⁺	0	0.184 5	E(n)(lab)=51.936. $\Gamma_\gamma=0.186$ eV 5, $g\Gamma_n=19.2$ eV 11.
7166.39			0.111 13	E(n)(lab)=54.744.
7166.48			0.356 13	E(n)(lab)=54.831.
7167.71			0.111 4	E(n)(lab)=56.079.
7170.00	[3/2]	[1]	0.453 7	E(n)(lab)=58.399. $\Gamma_\gamma=0.230$ eV 7, $g\Gamma_n=33.3$ eV 16.
7170.55			0.044 4	E(n)(lab)=58.953.
7171.57			0.327 15	E(n)(lab)=59.986.
7172.09			0.029 11	E(n)(lab)=60.511.
7172.27			0.173 4	E(n)(lab)=60.696.
7172.90	1/2 ⁺	0	0.095 7	E(n)(lab)=61.324. $\Gamma_\gamma=0.096$ eV 7, $g\Gamma_n=121$ eV 3.
7174.18			0.041 8	E(n)(lab)=62.62.
7174.63	[3/2]	[1]	0.393 7	E(n)(lab)=63.084. $\Gamma_\gamma=0.21$ eV 3, $g\Gamma_n=57.2$ eV 9.
7175.59	[1/2]	[1]	0.029 27	E(n)(lab)=64.049. $\Gamma_\gamma=0.029$ eV 28, $g\Gamma_n=3.1$ eV 26.
7175.73	[3/2]	[1]	0.710 24	E(n)(lab)=64.187. $\Gamma_\gamma=0.356$ eV 24, $g\Gamma_n=319.0$ eV 16.
7176.72			0.074 6	E(n)(lab)=65.191.
				Additional information 1.
7177.87	1/2 ⁺	0	0.166 12	E(n)(lab)=66.354. $\Gamma_\gamma=0.166$ eV 12, $g\Gamma_n=247$ eV 6.
7178.22	[3/2]	[1]	0.356 9	E(n)(lab)=66.712. $\Gamma_\gamma=0.179$ eV 9, $g\Gamma_n=66.8$ eV 18.
7180.33	[3/2]	[1]	0.429 11	E(n)(lab)=68.846. $\Gamma_\gamma=0.215$ eV 11, $g\Gamma_n=156.9$ eV 13.
7181.28			0.09 9	E(n)(lab)=69.806.
7181.29	1/2 ⁺	0	0.11 3	E(n)(lab)=69.822. $\Gamma_\gamma=0.11$ eV 3, $g\Gamma_n=846$ eV 10.
7182.31	[1/2]	[1]	0.15 11	E(n)(lab)=70.853. $\Gamma_\gamma=0.15$ eV 11, $g\Gamma_n=155.6$ eV 19.
7182.40	[3/2]	[1]	0.30 11	E(n)(lab)=70.938. $\Gamma_\gamma=0.19$ eV 11, $g\Gamma_n=39.1$ eV 19.
7183.74			0.157 9	E(n)(lab)=72.295.
7184.95			0.088 6	E(n)(lab)=73.527.
7185.28	[3/2]	[1]	0.356 11	E(n)(lab)=73.86. $\Gamma_\gamma=0.179$ eV 19, $g\Gamma_n=69.0$ eV 13.
7186.03	[3/2]	[1]	0.522 16	E(n)(lab)=74.614. $\Gamma_\gamma=0.261$ eV 16, $g\Gamma_n=368.4$ eV 22.
7186.77			0.6 5	E(n)(lab)=75.36.
7186.78	1/2 ⁺	0	0.05 5	E(n)(lab)=75.371. $\Gamma_\gamma=0.05$ eV 5, $g\Gamma_n=143$ eV 4.
7188.27	[1/2]	[1]	0.276 10	E(n)(lab)=76.882. $\Gamma_\gamma=0.278$ eV 10, $g\Gamma_n=39$ eV 3.
7189.77			0.155 15	E(n)(lab)=78.4.
7189.97	[1/2]	[1]	0.313 18	E(n)(lab)=78.605. $\Gamma_\gamma=0.313$ eV 18, $g\Gamma_n=321$ eV 3.
7190.32			0.138 8	E(n)(lab)=78.961.
7190.79			0.067 11	E(n)(lab)=79.437.
7191.05		[1]	0.321 12	E(n)(lab)=79.695. $\Gamma_\gamma=0.322$ eV 13, $g\Gamma_n=86.6$ eV 16.
7192.19			0.161 9	E(n)(lab)=80.854.
7192.54	[3/2]	[1]	0.456 12	E(n)(lab)=81.203. $\Gamma_\gamma=0.229$ eV 12, $g\Gamma_n=95.2$ eV 17.
7192.99			0.082 11	E(n)(lab)=81.657.

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$^{84}\text{Kr}(n,\gamma),(n,n)$:resonances **2006MuZX** (continued) ^{85}Kr Levels (continued)

<u>E(level)[†]</u>	<u>J^π</u>	<u>L</u>	<u>gΓ_nΓ_γ/Γ (eV)</u>	<u>Comments</u>
7193.17			0.374 17	E(n)(lab)=81.841.
7196.29	[3/2]	[1]	0.604 17	E(n)(lab)=84.995. Γ _γ =0.303 eV 17, gΓ _n =365 eV 4.
7197.19			0.186 20	E(n)(lab)=85.91.
7197.46	1/2 ⁺	0	0.14 5	E(n)(lab)=86.182. Γ _γ =0.14 eV 5, gΓ _n =325 eV 17.
7197.64	[3/2]	[1]	0.34 3	E(n)(lab)=86.364. Γ _γ =0.17 eV 3, gΓ _n =63 eV 5.
7198.72	[3/2]	[1]	0.305 11	E(n)(lab)=87.46. Γ _γ =0.153 eV 11, gΓ _n =70 eV 6.
7199.15	[3/2]	[1]	0.479 16	E(n)(lab)=87.895. Γ _γ =0.241 eV 16, gΓ _n =117 eV 4.
7199.57			0.188 8	E(n)(lab)=88.319.
7200.13			0.202 11	E(n)(lab)=88.887.
7200.99			0.371 14	E(n)(lab)=88.743.
7201.52	1/2 ⁺	0	0.11 6	E(n)(lab)=88.287. Γ _γ =0.11 eV 6, gΓ _n =299 eV 13.
7201.52			0.056	E(n)(lab)=90.288.
7202.84	[3/2]	[1]	0.347 15	E(n)(lab)=91.627. Γ _γ =0.175 eV 15, gΓ _n =48 eV 3.
7203.21	[1/2]	[1]	0.118 8	E(n)(lab)=92.002. Γ _γ =0.120 eV 9, gΓ _n =8 eV 5.
7203.56	[3/2]	[1]	0.302 13	E(n)(lab)=92.36. Γ _γ =0.152 eV 13, gΓ _n =83 eV 3.
7204.40			0.135 8	E(n)(lab)=93.206.
7205.14			0.293 10	E(n)(lab)=93.955.
7205.39			0.350 11	E(n)(lab)=94.208.
7206.92			0.286 10	E(n)(lab)=95.754.
7207.50		[1]	0.187 12	E(n)(lab)=96.349. Γ _γ =0.188 eV 12, gΓ _n =34 eV 6.
7207.77			0.183 11	E(n)(lab)=96.619.
7208.79			0.108 17	E(n)(lab)=97.655.
7209.08			0.196 12	E(n)(lab)=97.946.
7210.09	[3/2]	[1]	0.622 19	E(n)(lab)=98.965. Γ _γ =0.312 eV 19, gΓ _n =402 eV 5.
7211.08			0.305 11	E(n)(lab)=99.969.
7212.26		[1]	0.188 16	E(n)(lab)=101.16. Γ _γ =0.188 eV 16, gΓ _n =131 eV 15.
7212.58			0.370 14	E(n)(lab)=101.48.
7213.31			0.221 10	E(n)(lab)=102.22.
7213.74			0.32 3	E(n)(lab)=102.66.
7213.93			0.57 5	E(n)(lab)=102.85.
7215.43	[3/2]	[1]	0.556 15	E(n)(lab)=104.37. Γ _γ =0.280 eV 16, gΓ _n =100 eV 5.
7216.97	[3/2]	[1]	0.436 14	E(n)(lab)=105.93. Γ _γ =0.218 eV 14, gΓ _n =147 eV 3.
7218.20			0.131 11	E(n)(lab)=107.17.
7218.91			0.228 12	E(n)(lab)=107.89.
7219.82			0.231 13	E(n)(lab)=108.81.
7220.12			0.401 14	E(n)(lab)=109.12.
7221.01	[3/2]	[1]	0.300 14	E(n)(lab)=110.02. Γ _γ =0.151 eV 14, gΓ _n =64 eV 7.
7222.01	[3/2]	[1]	0.299 16	E(n)(lab)=111.03. Γ _γ =0.151 eV 16, gΓ _n =59 eV 8.
7222.50	[3/2]	[1]	0.065 10	E(n)(lab)=111.53. Γ _γ =0.033 eV 10, gΓ _n =40 eV 8.

[†] From E_{c.m.}+S(n) where S(n)=7112.3 20 (2012Wa38); E_{c.m.} deduced from E(n)(lab) in 2006MuZX. The E(n)(lab) in keV are given under comments.