^{79}Br(n,γ) E=1.8,2.8,58 keV 1994HoZU,1994MuZU

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$J^\pi(^{79}Br\ g.s.)=3/2^-$.

1994HoZU, 1994MuZU: Natural Br target. Measured Eγ, Iγ; average resonance capture (ARC) experiment. The reduced intensities of 33 primary gamma rays at E(n)=2.8 keV and deduced J^π values for levels populated by these primary gamma rays are displayed in figure 2 of 1994MuZU. 1994HoZU, in their table 1, list data for 28 levels.

Neutron resonances in ^{79}Br(n,γ) E=res: 1988Ma24, 1981Oh09, 1969Ju01, 1965Ne08, 1964Ga08, 1963Ze04, 1960De03, 1955Le45.

Additional information 1.

^{80}Br Levels

E(level)†	J$^\pi$‡	Comments
0	1^+	Iγ/Eγ^5=3.26 *3* (E(n)=2.8 keV), 3.2 *1* (E(n)=58 keV).
36.97 *9*	2^-	Iγ/Eγ^5=1.13 *2* (E(n)=2.8 keV), 3.9 *4* (E(n)=58 keV).
256.37 *21*	1^-,2^-	J^π: 2^- in 'Adopted Levels'. Iγ/Eγ^5=1.4 *1* (E(n)=2.8 keV), 3.9 *2* (E(n)=58 keV).
271.22 *16*	2^+	Iγ/Eγ^5=3.41 *4* (E(n)=2.8 keV), 4.1 *2* (E(n)=58 keV).
281.20 *17*	3^-	Iγ/Eγ^5=0.60 *4* (E(n)=2.8 keV), 3.6 *2* (E(n)=58 keV).
309.5 *9*	4^-	Iγ/Eγ^5=0.13 *4* (E(n)=2.8 keV).
315.14 *9*	1^+,2^+	J^π: $(1)^+$ in 'Adopted Levels'. Iγ/Eγ^5=3.3 *5* (E(n)=2.8 keV).
331.02 *16*	0^-,3^-	J^π: $(3)^-$ in 'Adopted Levels'. Iγ/Eγ^5=0.69 *3* (E(n)=2.8 keV), 3.8 *4* (E(n)=58 keV).
366.7 *4*	1^-,2^-	Iγ/Eγ^5=0.91 *8* (E(n)=2.8 keV), 3.3 *4* (E(n)=58 keV).
380.7 *6*	$(0\text{ to }3)^-$	J^π: $(3)^-$ in 'Adopted Levels'. Iγ/Eγ^5=0.7 *2* (E(n)=2.8 keV), 3.3 *4* (E(n)=58 keV).
390.4 *8*	4^-	Iγ/Eγ^5=0.08 *5* (E(n)=2.8 keV), 1.3 *3* (E(n)=58 keV).
456.3 *5*	4^-	Iγ/Eγ^5=0.16 *3* (E(n)=2.8 keV), 1.0 *2* (E(n)=58 keV).
469.20 *12*	$(2)^+$&$(3)^-$	E(level),J^π: doublet; J^π from 'Adopted Levels'. Iγ/Eγ^5=4.06 *5* (E(n)=2.8 keV), 6.4 *3* (E(n)=58 keV).
492.50 *22*	1^-,2^-	J^π: $(2)^-$ in 'Adopted Levels'. Iγ/Eγ^5=0.94 *9* (E(n)=2.8 keV), 4.6 *3* (E(n)=58 keV).
499.6 *6*	4^-	Iγ/Eγ^5=0.18 *7* (E(n)=2.8 keV), 1.6 *3* (E(n)=58 keV).
522.4 *7*	4	J^π: (5^-) in 'Adopted Levels'. Iγ/Eγ^5=0.6 *2* (E(n)=58 keV).
549.41 *9*	0^+,3^+	J^π: $(3)^+$ in 'Adopted Levels'. Iγ/Eγ^5=1.89 *3* (E(n)=2.8 keV), 2.6 *2* (E(n)=58 keV).
586.09 *13*	0^+,3^+	J^π: $(3)^+$ in 'Adopted Levels'. Iγ/Eγ^5=1.68 *11* (E(n)=2.8 keV), 1.9 *5* (E(n)=58 keV).
615.0 *4*	4^-	Iγ/Eγ^5=0.11 *5* (E(n)=2.8 keV), 1.4 *2* (E(n)=58 keV).
660.71 *8*		J^π: $(2)^+$ in 'Adopted Levels'. Iγ/Eγ^5=4.79 *6* (E(n)=2.8 keV), 8.2 *4* (E(n)=58 keV).
684.4 *3*	(4)	J^π: $(3,4^-,5^-)$ in 'Adopted Levels'. Iγ/Eγ^5=0.60 *7* (E(n)=2.8 keV), 2.7 *3* (E(n)=58 keV).
685.26	0^-,3^-	J^π: (3^-) in 'Adopted Levels'.
694.8 *4*	(4)	Iγ/Eγ^5=0.25 *5* (E(n)=2.8 keV), 2.7 *3* (E(n)=58 keV).
723	0^-,3^-	E(level),J^π: 723+727 doublet with J^π=(1,2) for one and $(1^-,2,3)$ for the other. Iγ/Eγ^5=4.9 *4* (E(n)=2.8 keV), 3.3 *4* (E(n)=58 keV).
731.0 *3*	0^+,3^+	J^π: $(2)^+$ in 'Adopted Levels'. Iγ/Eγ^5=2.5 *3* (E(n)=2.8 keV), 2.7 *3* (E(n)=58 keV).
738.5 *3*	1^-,2^-	Iγ/Eγ^5=1.0 *1* (E(n)=2.8 keV), 3.9 *4* (E(n)=58 keV).
754.8 *7*	4^-	Iγ/Eγ^5=0.3 *1* (E(n)=2.8 keV), 0.9 *4* (E(n)=58 keV).
765.37 *19*	1^+,2^+	Iγ/Eγ^5=3.0 *1* (E(n)=2.8 keV), 4.1 *3* (E(n)=58 keV).

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^{79}Br(n,γ) E=1.8,2.8,58 keV 1994HoZU,1994MuZU (continued)

^{80}Br Levels (continued)

E(level)[†]	J$^{\pi}$[‡]	Comments
815.14 *17*		Iγ/Eγ^5=3.4 *1* (E(n)=2.8 keV), 7.0 *4* (E(n)=58 keV).
(S(n)+1.8[@])	(0$^+$,1,2,3$^+$)[#]	
(S(n)+2.8[@])	(0$^+$,1,2,3$^+$)[#]	
(S(n)+58[@])	(0$^+$,1,2,3$^+$)[#]	

[†] Another 10 levels from 815 to 1000 are shown In figure 2 of 1994MuZU that are populated In E(n)=2.8 keV data.
[‡] From reduced intensities of primary γ rays in ARC data (1994HoZU). and 'Adopted Levels'.
[#] From S- or P-wave capture In 3/2$^-$ g.s. of ^{79}Br.
[@] S(n)=7892.28 *13* (2003Au03).