Adopted Levels, Gammas

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen, Balraj Singh	NDS 164, 1 (2020)	15-Feb-2020

Q(β^-)=5872 *9*; S(n)=5913 *5*; S(p)=15193 *4*; Q(α)=−7500 *13* 2017Wa10
S(2n)=9642 *9*, S(2p)=27921 *21*, Q(β^-n)=1627 *7* (2017Wa10).
Other measurements:
2009Ma47: ^{238}U(^{136}Xe,Xγ): E=954 MeV ^{136}Xe beam from the PIAVE-ALPI complex at INFN. Measured Eγ, Iγ, $\gamma\gamma$-coin with the CLARA array and reaction products with the PRISMA spectrometer. Report 145γ, 289γ and 433γ.
Mass measurements: 2016Kl04, 2012Si10 (Penning-trap mass spectrometer TITAN at ISAC-TRIUMF facility), 2006Ha03 (Penning trap spectrometer at Jyvaskyla facility).
Hyperfine structure studies for the g.s.: 1990Bu12, 1988Si06.
Measurements of rms charge radii: 1996Li25, 1992Ne09.
Theory references: consult the NSR database (www.nndc.bnl.gov/nsr/) for 52 primary references, 43 dealing with nuclear structure calculations and 9 with decay modes and half-lives.
Additional information 1.

^{98}Sr Levels

Cross Reference (XREF) Flags

A	^{98}Rb β^- decay (115 ms)	F	^{252}Cf SF decay
B	^{98}Rb β^- decay (96 ms)	G	^{7}Li(^{98}Rb,α3nγ)
C	^{99}Rb β^-n decay (57.8 ms)	H	^{235}U(n,Fγ)
D	^{100}Rb β^-2n decay (52 ms)	I	Coulomb excitation
E	^{248}Cm SF decay		

E(level)†	J$^\pi$	T$_{1/2}$	XREF	Comments
0.0‡	0$^+$	0.653 s *2*	ABCDEFGHI	%β^-=100; %β^-n=0.23 *3* Evaluated rms charge radius=4.438 fm *22* (2013An02). Evaluated δ<r^2>(^{88}Sr,^{98}Sr)=1.656 fm^2 *6* (2013An02). T$_{1/2}$: weighted average of 0.652 s *3* (2017Ur03, weighted average of 0.650 s *5* from decay curves for 428.6- and 444.7-keV γ rays, and 0.652 s *3* from decay curve for 119.3-keV γ ray; note that 2017Ur03 list 0.651 s *2* in their summary Table II), and 0.653 s *2* (1986ReZU). Others, with much less precision: 0.640 s *20*(syst) *35*(stat) from maximum likelihood method (MLH), 0.577 s *1*(syst) *30*(stat) from least-squares fit method (2012Qu01), 0.650 s *40* (1987PfZX), 0.645 s *50* (1982Ga24), 0.7 s *1* (1981En05), 0.6 s *1* (1979En02), 0.66 s *7* (1978Wo09), 1.04 s *11* (1976AmZW), 0.845 s *43* (1971Tr02,1970KlZZ). %β^-n: weighted average of 0.23 *3* (1993Ru01) and 0.23 *5* (1986ReZU, earlier values of 0.23 *2* in 1986Wa17 and 0.18 *2* in 1983Re10). Others: 0.36 *11* (1981En05), 0.8 *2* (1987PfZX,1982Ga24). Δ<r^2>(^{97}Sr−^{98}Sr)=0.578 fm^2 *9* (1996Li25).
144.70‡ *5*	2$^+$	2.78 ns *8*	ABCDEFGHI	μ=0.76 *14* (1989Wo05,2014StZZ) Q=−0.52 *24* (2016Cl01) J$^\pi$: 144.2γ E2 to 0$^+$. T$_{1/2}$: weighted average of 2.77 ns *14* in (n,Fγ) ($\gamma\gamma$(t),2017Re05), 2.80 ns *8* ($\beta\gamma$(t),1989Ma47,1989Ma38) and 2.74 ns *12* ($\gamma\gamma$(t),1987Oh05) in ^{98}Rb β^- decay. Others: 4 ns *1* (β(ce)(t), 1980Sc13); 3.6 ns *4* (β(ce)(t), 1979Az01) in ^{98}Rb β^- decay; 4.0 ns *+30−15* (γ(x ray)(t), 1980ChZM in ^{254}Cf SF decay; see ^{252}Cf SF decay dataset). Additional information 2. μ: $\gamma\gamma$(θ,H) in ^{98}Rb β^- decay (1989Wo05). Q: from reorientation method in Coulomb excitation (2016Cl01).

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Adopted Levels, Gammas (continued)

^{98}Sr Levels (continued)

E(level)[†]	Jπ	$T_{1/2}$	XREF	Comments
215.64[#] *10*	0^+	22.9 ns *17*	ABC EF I	Jπ: 71.0γ E2 to 2^+. $T_{1/2}$: weighted average of 21.2 ns *17* (γγ(t),2002Lh01), 25 ns *2* (β-ce(t),1980Sc13), and 23 ns *2* (β-ce(t),1979Az01) in ^{98}Rb β^- decay.
434.07[‡] *7*	4^+	82 ps *6*	BC EFGHI	Q=−1.87 *+14−25* (2016Cl01) Jπ: 289.3γ E2 to 2^+ and γγ(θ) in ^{98}Rb β^- decay. $T_{1/2}$: weighted average of 80 ps *6* from βγγ(t) in ^{98}Rb β^- decay (1989Ma47) and 83.9 ps *76* from γγ(t) in (n,Fγ). Q: from reorientation method in Coulomb excitation (2016Cl01).
867.37[‡] *9*	6^+	7.86 ps *24*	B EFGHI	Q=−1.21 *+39−16* (2016Cl01) Jπ: γγ(θ) in ^{98}Rb β^- decay consistent with J=6; negative parity is ruled out since it would require an unreasonably large B(M2) value for 433.2γ; member of g.s. band. $T_{1/2}$: weighted average of 11 ps *6* from γγ(t) in (n,Fγ) and 7.86 ps *24* from B(E2) of 433.2γ in Coulomb excitation. Q: from reorientation method in Coul. ex. (2016Cl01).
871.34[#] *12*	(2^+)	8.6 ps *14*	ABC EF I	Q=+0.02 *+13−12* (2016Cl01) Jπ: 655.8γ and 871.4γ to 0^+; possible γ to 4^+. $T_{1/2}$: from B(E2) value of 655.8γ in Coulomb excitation. Q: from reorientation method in Coulomb excitation (2016Cl01).
1224.4 *3*	$(0^+,1)$		A C	Jπ: 1079.7γ to 2^+; possible β^- feeding from $0^{(-)}$.
1433.65[‡] *13*	8^+	2.97 ps *48*	EF HI	Q=−0.95 *+74−88* (2016Cl01) Jπ: 566γ to 6^+; member of g.s. band. $T_{1/2}$: from Doppler-profile method (1996Sm04) in ^{248}Cm SF decay. Q: from reorientation method in Coulomb excitation (2016Cl01).
1539.42 *16*	(2^+)		AB	Jπ: 1539.2γ and 1323.9γ to 0^+; 1105.5γ to 4^+.
1600.69 *14*	(2^+)		AB	Jπ: γγ(θ) consistent with J=2; 1167.1γ to 4^+ and possible 1600.4γ to 0^+.
1681.45[#] *18*	(4^+)		B E	Jπ: 810.4γ to (2^+); band member.
1745.3? *4*			AB	
1837.94[@] *15*	(3^+)	7.5 ns *15*	AB EF	Jπ: from re-analysis by 2002PfZX of γγ(θ) data in 1984Be50 with a configuration=ν9/2[404]⊗ν3/2[411], $K^\pi=3^+$; also proposed by 2002Lh01 based on arguments of hindrances of γ transitions, β feedings and band head of a possible K=3 band. Note that 1984Be50 give J=2 based on their γγ(θ) data and a 1837γ to 0^+ ground state. But the 1837γ was not observed by 2002Lh01. It is also pointed out by 2002Lh01 that J=3 cannot be rejected by γγ(θ) of the 1693-144 cascade in 1984Be50. $T_{1/2}$: weighted average of 13 ns *3* from γ(t) in ^{252}Cf SF decay (2004Li66) and 7.1 ns *8* from γγ(t) in ^{98}Rb β^- decay (2002Lh01).
1922.4? *4*			AB	
1964.16 *20*	$(1,2^+)$		AB	Jπ: 1819.5γ to 2^+ and possible 1964.1γ to 0^+.
1978.53[@] *17*	(4^+)		B EF	Jπ: suggested by 2002Lh01 in ^{98}Rb β^- decay based on possible band assignment; 1544.5γ to 4^+ and 140.6γ to (3^+); possible β^- feeding from (3^+); possible 1111γ to 6^+.
2043.1 *10*			E	
2123.15[‡] *24*	10^+	1.07 ps *17*	EF I	Jπ: 689.6γ to 8^+; member of g.s. band. $T_{1/2}$: from Doppler-profile method (1996Sm04) in ^{248}Cm SF decay.
2124.23 *13*	$(1^+$ to $4^+)$		AB	Jπ: 1979.6γ to 2^+ and 286.2γ to (3^+). 2002Lh01 in ^{98}Rb β^- decay suggest (2^-) from model calculation with configuration=ν9/2[404]⊗ν5/2[532].
2153.61[@] *25*	(5^+)		B EF	Jπ: 1719.5γ to 4^+, possible 1286.1γ to 6^+ and 315.7γ to (3^+); possible band member.

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Adopted Levels, Gammas (continued)

^{98}Sr Levels (continued)

E(level)[†]	J^π	$T_{1/2}$	XREF	Comments
2182.1 *15*			E	
2206.09 *20*	(3)		B	J^π: $\gamma\gamma(\theta)$ in ^{98}Rb β^- decay consistent with J=3 or 5; 605.4γ to (2^+).
2231.38 *14*	$(2,3,4^+)$		B	J^π: 2086.3γ to 2^+; possible β^- feeding from (3^+).
2237.6? *4*			AB	
2289.2? *3*			AB	
2316.14 *21*	(2^+)		AB	J^π: $\gamma\gamma(\theta)$ in ^{98}Rb β^- decay consistent with J=2; 2315.8γ to 0^+. Note that (2^+) is inconsistent with a possible strong β^- feeding from $0^{(-)}$ parent in ^{98}Rb β^- decay (115 ms) as also given in 2002Lh01, which could imply that this level could be β^- fed mostly by the decay of (3^+) isomer in ^{98}Rb rather than by the decays of both parent states equally as assumed by 2002Lh01, if the (2^+) assignment can be confirmed.
2359.14 *24*	$(2^+,3,4^+)$		B	J^π: 2214.7γ to 2^+ and 1925.5γ to 4^+.
2361.1[@] *6*	(6^+)		EF	J^π: 382.9γ to (4^+); possible band member.
2432.23[#] *15*	(6^+)		E	J^π: 1565γ to 6^+; 1998γ to 4^+; band member.
2534.3[&] *6*	(6^+)	4.5 ns *10*	EF	J^π: 2100.2γ to 4^+ and 1666.8γ to 6^+; possible $K^\pi=6^+$ bandhead. $T_{1/2}$: from γ(t) in ^{252}Cf SF decay (2004Li66).
2574.8 *8*			E	
2602.7[@] *8*	(7^+)		EF	J^π: 241.5γ to (6^+) and 449.4γ to (5^+); possible band member.
2771.9[&] *6*	(7^+)		EF	J^π: 1904.4γ to 6^+ and 1338.5γ to 8^+; possible band member.
2804.4 *3*	$(1,2^+)$		AB	J^π: possible 2804.2γ to 0^+.
2818.27 *18*	(7^+)		E	J^π: γ rays to 6^+ and 8^+.
2873.5[@] *9*	(8^+)		EF	J^π: 270.8γ to (7^+) and 512.3γ to (6^+); possible band member.
2899.5[a] *10*			E	
2927.7[‡] *4*	(12^+)	0.46 ps *7*	EF	J^π: 804.5γ to 10^+; band member. $T_{1/2}$: from Doppler-profile method (1996Sm04) in ^{248}Cm SF decay.
2932.3 *4*	$(2^+,3,4)$		B	J^π: 2498.2γ to 4^+ and possible β^- feeding from (3^+). configuration=ν3/2[411]ν5/2[532], $K^\pi=4^-$ proposed by 2002PfZX as an analogy with the 1619, 4^- level in ^{100}Sr based on decay pattern and the hindrance of the 2498γ.
3041.4[&] *7*	(8^+)		EF	J^π: 918.2 to 10^+ and 269.3γ to (7^+); possible band member.
3162.7[a] *10*			E	
3174.6[@] *10*	(9^+)		EF	J^π: 571.9γ to (7^+) and 301.1γ to (8^+); possible band member.
3290.5 *4*	$(1,2^+)$		AB	J^π: possible 3290.2γ to 0^+.
3341.4[&] *12*	(9^+)		EF	J^π: 300γ to (8^+); possible band member.
3442.7 *4*	(3)		B	J^π: from $\gamma\gamma(\theta)$ in ^{98}Rb β^- decay.
3445.7[a] *14*			E	
3462.7 *4*	$(2^+$ to 4)		B	J^π: 3028.6γ to 4^+; possible β^- feeding from J=(3^+).
3510.7[@] *11*	(10^+)		F	J^π: γs to (8^+) and (9^+); possible band member.
3622.7 *5*	$(1,2^+)$		AB	J^π: 3622.4γ to 0^+.
3671.0[&] *16*	(10^+)		EF	J^π: 329.6γ to (9^+); possible band member.

[†] From a least-squares fit to γ-ray energies, assuming $\Delta E\gamma$=1 keV when not stated.

[‡] Band(A): g.s. band Q(intrinsic)=3.40 *15* (2001Ur01). Other: 3.17 *20* (1996Sm04). Q_0 deduced from lifetime data for 8^+, 10^+ and 12^+ states. Proposed configuration=$\nu h^2_{11/2}\otimes\nu 9/2[404]^{-2}$, prolate structure (2019Ur01).

[#] Band(B): Band based on 215.4, 0^+. Proposed configuration=$\nu 11/2[505]^2\otimes\nu 9/2[404]^{-2}$, oblate structure (2019Ur01).

[@] Band(C): ν9/2[404]−3/2[411],$K^\pi=(3^+)$.

[&] Band(D): ν9/2[404]+3/2[411],$K^\pi=(6^+)$.

[a] Seq.(E): γ cascade.

Adopted Levels, Gammas (continued)

γ(^{98}Sr)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[@]	$I_{(\gamma+ce)}$[#]	Comments
144.70	2^+	144.70 *5*	100	0.0	0^+	E2		0.262		B(E2)(W.u.)=96 *3* α(K)=0.225 *4*; α(L)=0.0313 *5*; α(M)=0.00527 *8* α(N)=0.000623 *9*; α(O)=2.99×10^{-5} *5* E_γ: from ^{248}Cm SF decay (2019Ur01). Others: 144.5 *1* (2002Lh01), 144.4 *2* (1977Wo07), 144.2 (1987Ma58), 144.5 (1984Be50), 144.7 (1979Pe17), 144.6 (1980Sc13), 144.224 *6* (1979Bo26, curved crystal) from ^{98}Rb decay (96 ms); 144.6 *3* (1982Kr11, ^{100}Rb β^-2n decay); 144.9 (2004Li66) and 144.3 (1997Ha64) from ^{252}Cf SF decay. Value from 197Bo26 is the most precise but seemingly discrepant, in view of higher values by ≈0.4-0.5 keV in other studies.
215.64	0^+	71.0 *1*	100	144.70	2^+	E2		3.55	455 *6*	α(K)=2.86 *5*; α(L)=0.579 *9*; α(M)=0.0979 *15* α(N)=0.01098 *17*; α(O)=0.000348 *6* B(E2)(W.u.)=62 *+7−6*
		215.6		0.0	0^+	E0			370 *14*	E_γ: from level energy difference.
434.07	4^+	289.40 *5*	100	144.70	2^+	E2		0.0218		α(K)=0.0191 *3*; α(L)=0.00230 *4*; α(M)=0.000385 *6* α(N)=4.71×10^{-5} *7*; α(O)=2.70×10^{-6} *4* B(E2)(W.u.)=124 *+10−9* E_γ: from ^{248}Cm SF decay (2019Ur01). Others: 289.3 *1* (2002Lh01) 289.2 *2* (1977Wo07) in ^{98}Rb decay (96 ms) are in agreement.
867.37	6^+	433.30 *5*	100	434.07	4^+	E2		0.0057		B(E2)(W.u.)=174.8 *18* E_γ: from ^{248}Cm SF decay (2019Ur01). Mult.: $\gamma\gamma(\theta)$ in ^{252}Cf SF decay (2019Ur01) (see data in ^{248}Cm SF), and RUL.
871.34	(2^+)	(437.7)	<9	434.07	4^+	[E2]		0.0055		B(E2)(W.u.)<12 E_γ: from level-energy difference. This transition is considered in GOSIA analysis by 2016Cl01. I_γ: deduced from B(E2) values in Coulomb excitation (by evaluators).
		655.8 *2*	100 *10*	215.64	0^+	[E2]		0.00168		B(E2)(W.u.)=13 *+5−4*
		726.7 *3*	23 *4*	144.70	2^+	[M1+E2]	0.7 *10*	0.00117 *7*		B(M1)(W.u.)=0.0007 *+9−5*; B(E2)(W.u.)=0.6 *+15−6* E_γ: from ^{248}Cm SF decay. δ: deduced by 2016Cl03 from B(E2) and B(M1) matrix elements, sign is unknown.
		871.2 *3*	25 *4*	0.0	0^+	[E2]				B(E2)(W.u.)=0.8 *+5−3* E_γ: average of values from ^{248}Cm SF decay and ^{98}Rb decay (96 ms).
1224.4	$(0^+,1)$	1079.7 *3*	100	144.70	2^+					
1433.65	8^+	566.3 *1*	100	867.37	6^+	E2		0.00255		B(E2)(W.u.)=122 *+25−18*

$^{98}_{38}Sr_{60}$-4

Adopted Levels, Gammas (continued)

γ(^{98}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	δ[‡]	α[@]	Comments
									Mult.: γγ(θ) in ^{252}Cf SF decay (2019Ur01) (see data in ^{248}Cm SF), and RUL.
1539.42	(2$^+$)	668.1 *3*	55 *10*	871.34	(2$^+$)				
		1105.5 *3*	85 *15*	434.07	4$^+$				
		1323.9 *3*	100 *20*	215.64	0$^+$				
		1539.2 *4*	40 *15*	0.0	0$^+$				
1600.69	(2$^+$)	1167.1 *4*	7 *3*	434.07	4$^+$				
		1455.9 *3*	100 *7*	144.70	2$^+$	Q(+D)	>+1.5		
		1600.4[&] *3*	25 *13*	0.0	0$^+$				
1681.45	(4$^+$)	810.4 *4*	100 *50*	871.34	(2$^+$)				All γ-ray data from the 1681 level are from ^{248}Cm SF decay.
		1247.3 *2*	70 *30*	434.07	4$^+$				
		1537.0[&] *5*	50 *30*	144.70	2$^+$				
1745.3?		1600.6[&] *4*	100	144.70	2$^+$				
1837.94	(3$^+$)	1403.9 *4*	4.2 *13*	434.07	4$^+$				I_γ: weighted average of 3.9 *13* from ^{98}Rb β^- decay (96 ms) and 6 *3* from ^{252}Cf SF decay.
		1693.2 *2*	100 *8*	144.70	2$^+$				I_γ: from ^{98}Rb β^- decay (96 ms) and from ^{252}Cf SF decay.
1922.4?		1777.7[&] *4*	100	144.70	2$^+$				
1964.16	(1,2$^+$)	1092.8 *3*	45 *7*	871.34	(2$^+$)				
		1819.5 *3*	100 *9*	144.70	2$^+$				
		1964.1[&] *4*	55 *14*	0.0	0$^+$				
1978.53	(4$^+$)	140.6 *1*	100 *4*	1837.94	(3$^+$)				
		1111.0	<1	867.37	6$^+$				
		1544.4	32 *7*	434.07	4$^+$				
2043.1		1609		434.07	4$^+$				E_γ: from ^{248}Cm SF decay only.
2123.15	10$^+$	689.5 *2*	100	1433.65	8$^+$	E2		0.00147	B(E2)(W.u.)=126 *+25−18* E_γ: from ^{248}Cm SF decay. Mult.: γγ(θ) in ^{252}Cf SF decay (2019Ur01) (see data in ^{248}Cm SF), and RUL.
2124.23	(1$^+$ to 4$^+$)	286.2 *2*	42 *8*	1837.94	(3$^+$)				
		523.4 *3*	42 *17*	1600.69	(2$^+$)				
		585.0 *3*	33 *17*	1539.42	(2$^+$)				
		1253.2 *4*	58 *17*	871.34	(2$^+$)				
		1979.6 *3*	100 *25*	144.70	2$^+$				
2153.61	(5$^+$)	175.1 *2*	59 *3*	1978.53	(4$^+$)				
		315.7	51 *3*	1837.94	(3$^+$)				
		1286.1	5 *5*	867.37	6$^+$				
		1719.5	100 *34*	434.07	4$^+$				
2182.1		139		2043.1					E_γ: from ^{248}Cm SF decay only.
2206.09	(3)	605.4 *2*	34 *6*	1600.69	(2$^+$)				
		1772.0 *3*	100 *14*	434.07	4$^+$	D+Q			δ: +0.05 to +4.5 from γγ(θ) in ^{98}Rb β^- decay.
2231.38	(2,3,4$^+$)	107.2 *1*	70 *7*	2124.23	(1$^+$ to 4$^+$)				

$^{98}_{38}Sr_{60}$-5

Adopted Levels, Gammas (continued)

γ(^{98}Sr) (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]	Comments
2231.38	(2,3,4$^+$)	630.7 *2*	100 *10*	1600.69	(2$^+$)		
		1359.8 *3*	100 *17*	871.34	(2$^+$)		
		2086.3 *4*	33 *10*	144.70	2$^+$		
2237.6?		2092.9[&] *4*	100	144.70	2$^+$		
2289.2?		2144.5[&] *3*	100	144.70	2$^+$		
2316.14	(2$^+$)	192.1[&] *4*	6 *4*	2124.23	(1$^+$ to 4$^+$)		
		2171.5 *3*	100 *13*	144.70	2$^+$	D+Q	δ: +0.5 to +20 from $\gamma\gamma(\theta)$ in ^{98}Rb β^- decay.
		2315.8[&] *4*	47 *19*	0.0	0$^+$		
2359.14	(2$^+$,3,4$^+$)	234.2 *4*	44 *22*	2124.23	(1$^+$ to 4$^+$)		
		1925.5 *4*	100 *17*	434.07	4$^+$		
		2214.7 *4*	44 *11*	144.70	2$^+$		
2361.1	(6$^+$)	207.8	100 *7*	2153.61	(5$^+$)		
		382.9	60 *7*	1978.53	(4$^+$)		
		1493[&]		867.37	6$^+$		E_γ: from ^{248}Cm SF decay only.
2432.23	(6$^+$)	751.0[&] *5*	23 *14*	1681.45	(4$^+$)		
		1564.7 *2*	100 *18*	867.37	6$^+$		
		1998.2 *2*	55 *14*	434.07	4$^+$		
2534.3	(6$^+$)	1666.8	15 *6*	867.37	6$^+$		
		2100.2	100 *19*	434.07	4$^+$	[E2]	B(E2)(W.u.)=0.00010 *+4−3*
2574.8		143		2432.23	(6$^+$)		
		1707		867.37	6$^+$		
2602.7	(7$^+$)	241.5	100 *11*	2361.1	(6$^+$)		
		449.3	39 *7*	2153.61	(5$^+$)		
2771.9	(7$^+$)	237.6	28 *5*	2534.3	(6$^+$)		
		1338.5	6 *6*	1433.65	8$^+$		
		1904.4	100 *12*	867.37	6$^+$		
2804.4	(1,2$^+$)	2659.8[&] *4*	71 *14*	144.70	2$^+$		
		2804.2[&] *4*	100 *24*	0.0	0$^+$		
2818.27	(7$^+$)	385.9 *3*	55 *27*	2432.23	(6$^+$)		
		1384.7 *2*	82 *27*	1433.65	8$^+$		
		1950.8 *3*	100 *27*	867.37	6$^+$		
2873.5	(8$^+$)	270.8	100 *8*	2602.7	(7$^+$)		
		512.3	77 *8*	2361.1	(6$^+$)		
2899.5		365		2534.3	(6$^+$)		
2927.7	(12$^+$)	804.5 *3*	100	2123.15	10$^+$	[E2]	B(E2)(W.u.)=135 *+25−19* E_γ: from ^{248}Cf SF decay (2019Ur01). Others: 812.5 (1996Sm04), 810.0 (2001Ur01) in ^{248}Cm SF decay; 805.6 (2004Li66) in ^{252}Cf SF decay. The spread in the available Eγ values make the precise energy of this transition uncertain. This may be the reason 2019Ur01, in Fig. 2 of their paper place Eγ value and the corresponding level energy in parentheses.
2932.3	(2$^+$,3,4)	2498.2 *4*	100	434.07	4$^+$		

$^{98}_{38}Sr_{60}$-6

Adopted Levels, Gammas (continued)

γ(^{98}Sr) (continued)

E_i(level)	J_i^π	E_γ †	I_γ †	E_f	J_f^π	Mult.‡	δ‡	Comments
3041.4	(8$^+$)	269.3	25 *8*	2771.9	(7$^+$)			
		918.2	100 *19*	2123.15	10$^+$			
		1607.8	<2	1433.65	8$^+$			
3162.7		263		2899.5				
		391		2771.9	(7$^+$)			
3174.6	(9$^+$)	301.1	76 *12*	2873.5	(8$^+$)			E_γ: 304 in ^{248}Cm SF decay (2004Du10).
		571.9	100 *20*	2602.7	(7$^+$)			E_γ: 576 in ^{248}Cm SF decay (2004Du10).
3290.5	(1,2$^+$)	3145.9 *5*	58 *11*	144.70	2$^+$			
		3290.2& *6*	100 *39*	0.0	0$^+$			
3341.4	(9$^+$)	300.0	100	3041.4	(8$^+$)			
3442.7	(3)	3008.6 *4*	100	434.07	4$^+$	D+Q	−1.8 *12*	Mult.,δ: from γγ(θ) in ^{98}Rb β$^-$ decay.
3445.7		283		3162.7				
3462.7	(2$^+$ to 4)	3028.6 *4*	100	434.07	4$^+$			
3510.7	(10$^+$)	336.1	100 *23*	3174.6	(9$^+$)			
		637.2	100 *31*	2873.5	(8$^+$)			
3622.7	(1,2$^+$)	3478.1 *6*	65 *18*	144.70	2$^+$			
		3622.4& *7*	100 *41*	0.0	0$^+$			
3671.0	(10$^+$)	329.6	100	3341.4	(9$^+$)			

† Primarily from ^{98}Rb β$^-$ decay with ΔEγ given, and from ^{252}Cf SF decay for high-spin levels (J≥6) where no ΔEγ is given, unless otherwise noted.
‡ From ce data (1980Sc13) and γγ(θ) (1984Be50) in ^{98}Rb β$^-$ decay, unless otherwise noted.
# From ^{98}Rb β$^-$ decay.
@ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.
& Placement of transition in the level scheme is uncertain.

$^{98}_{38}Sr_{60}$-7

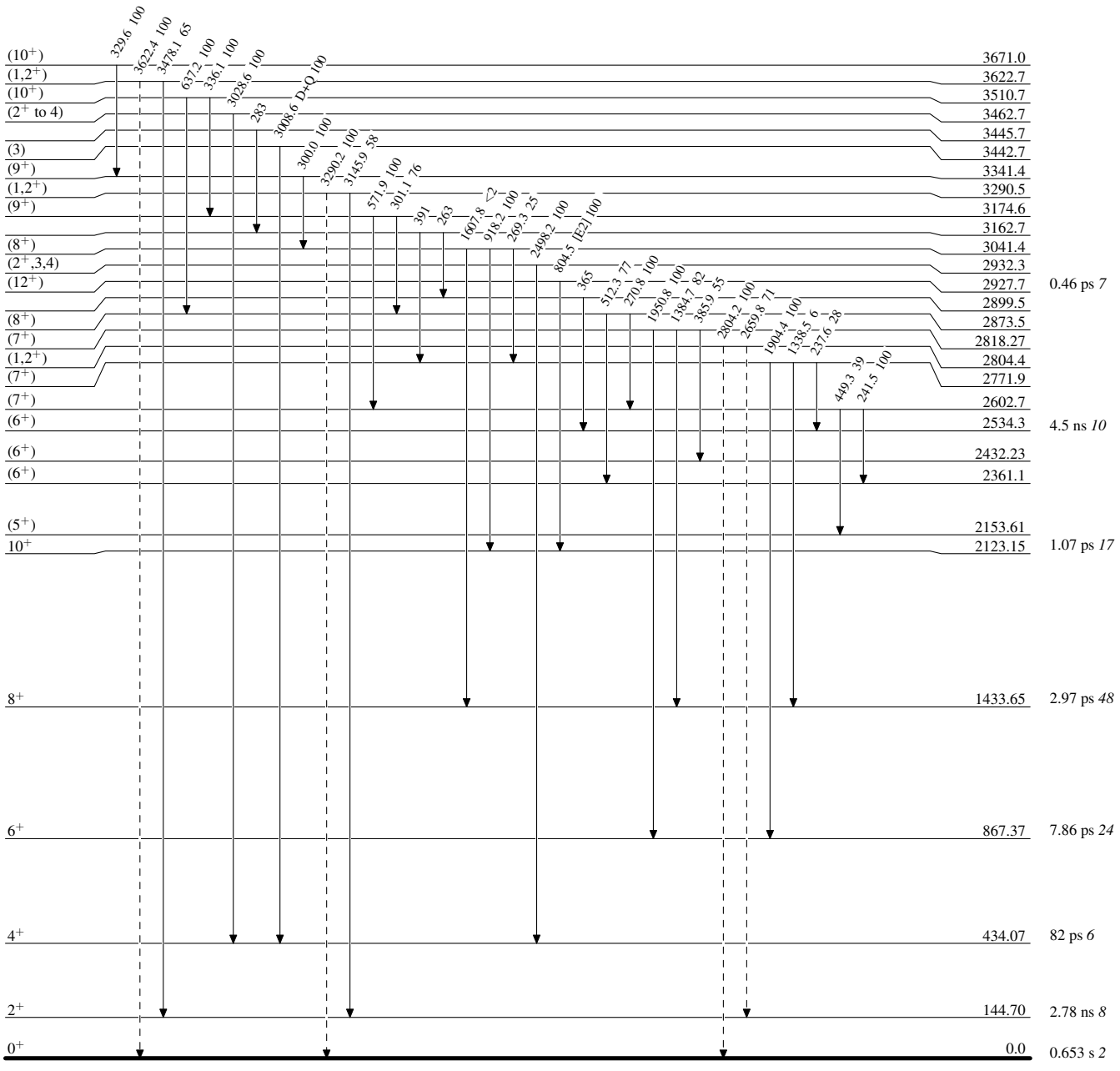
Adopted Levels, Gammas

Legend

Level Scheme

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



$^{98}_{38}Sr_{60}$

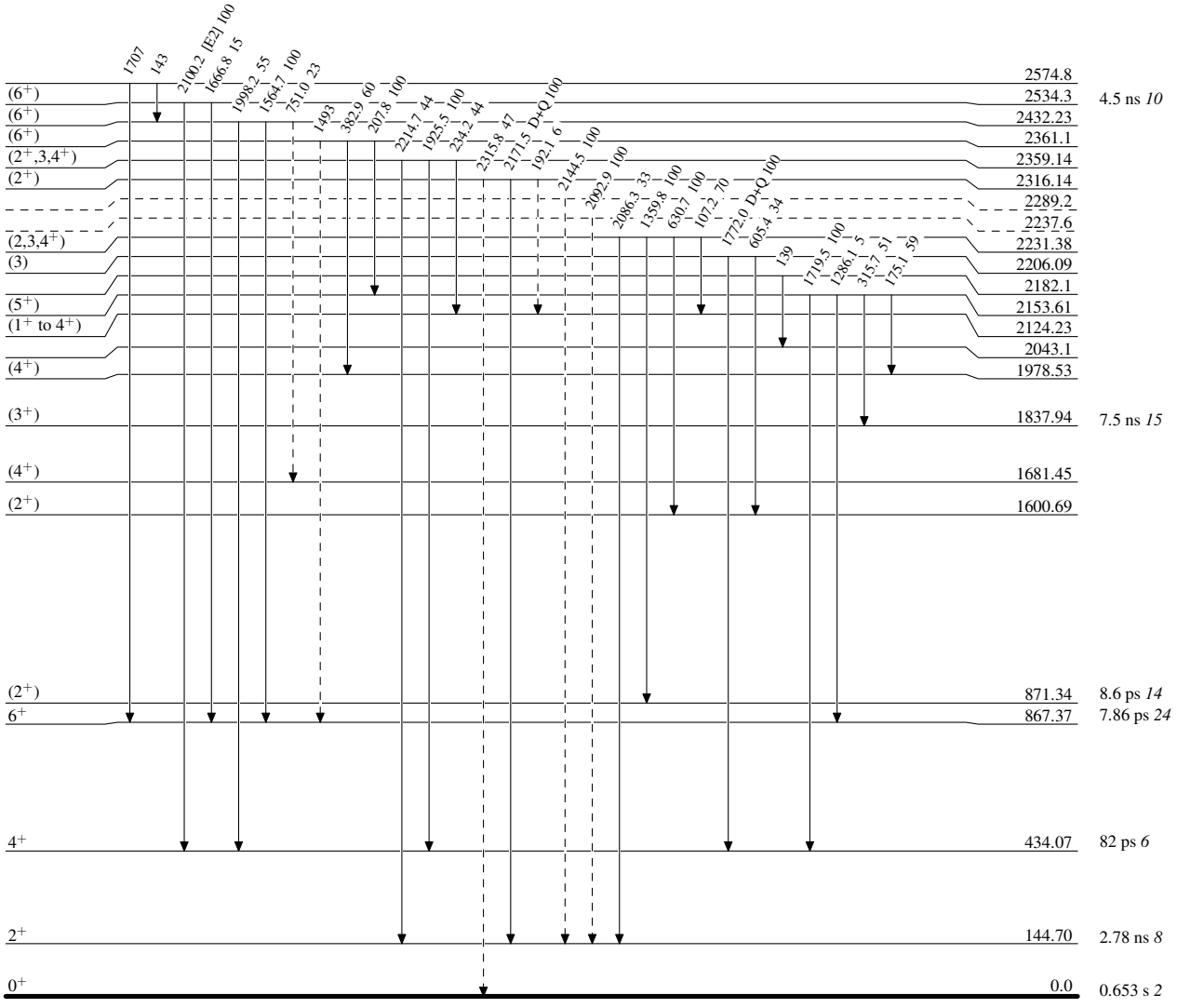
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)



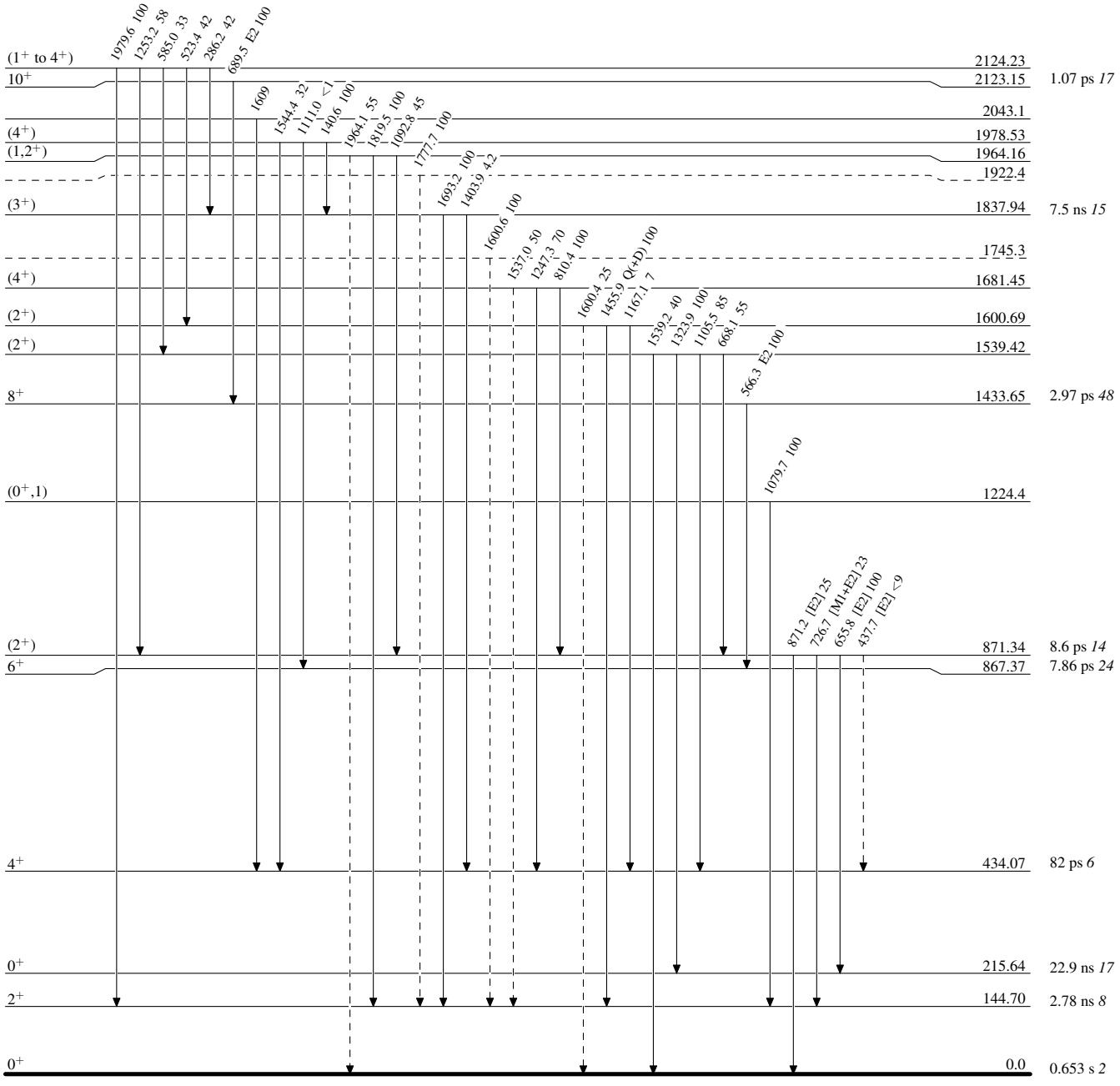
Adopted Levels, Gammas

Legend

Level Scheme (continued)

Intensities: Relative photon branching from each level

γ Decay (Uncertain)

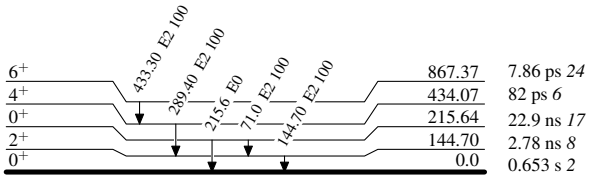


$^{98}_{38}Sr_{60}$

Adopted Levels, Gammas

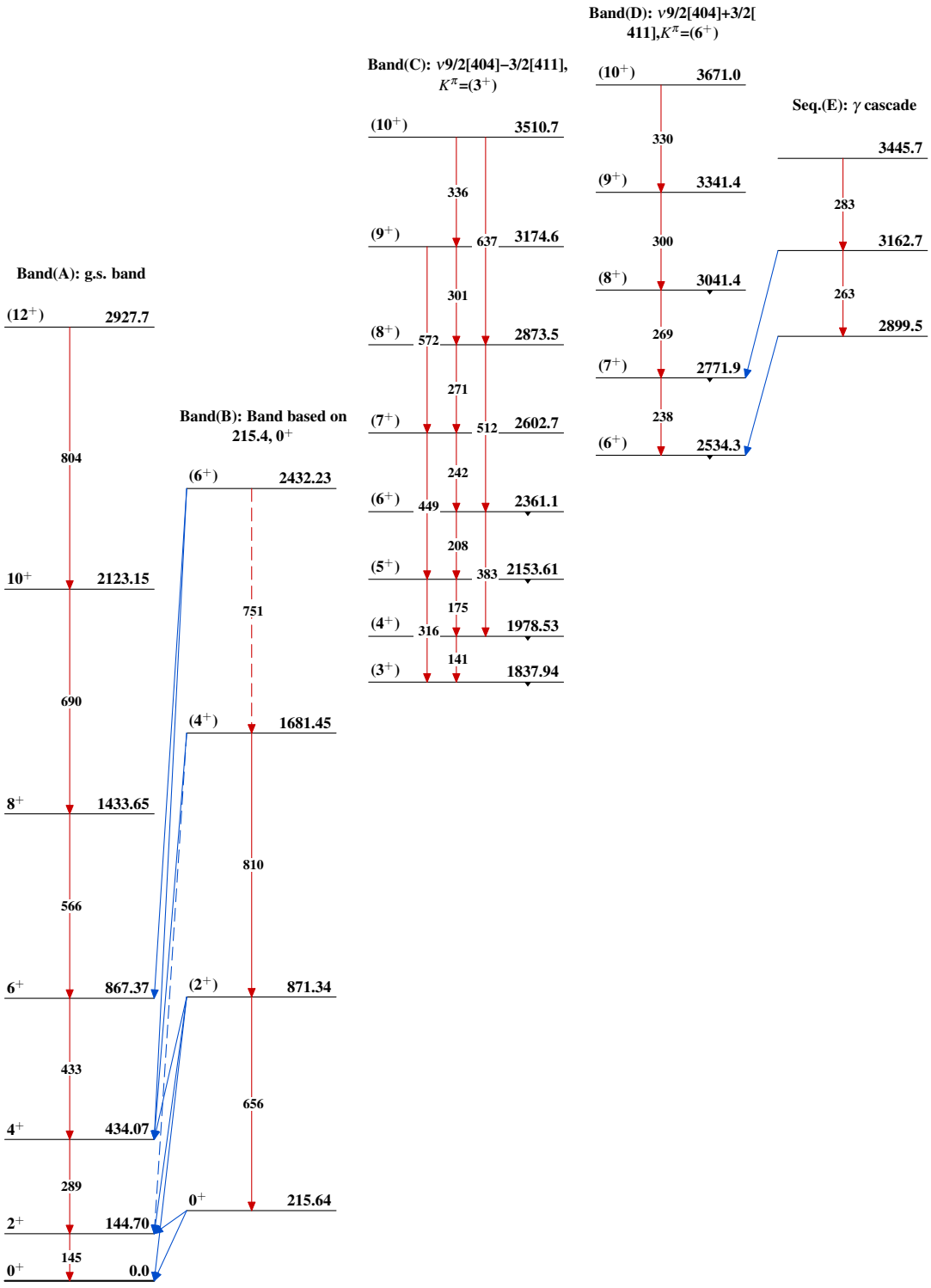
Level Scheme (continued)

Intensities: Relative photon branching from each level



$^{98}_{38}Sr_{60}$

Adopted Levels, Gammas



$^{98}_{38}Sr_{60}$