^{103}Rh(γ,γ') 2001St03,1981Ca10

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	D. De Frenne	NDS 110, 2081 (2009)	1-Mar-2009

2001St03: ^{103}Rh(γ,γ'), Eγ=2.4, 4.1 MeV bremsstrahlung; measured Eγ, Iγ. ^{103}Rh transitions deduced energies, widths, B(M1), B(E1), levels, dipole strength distribution, population inversion. Possible application to γ-ray laser discussed.

1981Ca10: ^{103}Rh(γ,γ'), Eγ=0.5-1.65 MeV bremsstrahlung; measured $\gamma(\theta)$, self absorption, absolute γ-transition strength. ^{103}Rh levels deduced $T_{1/2}$. Nuclear resonance fluorescence technique.

All data are from 2001St03, unless noted otherwise. All widths are in meV.

^{103}Rh Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0			
803.07 *6*	1/2$^-$	0.120 ps *19*	E(level): From Adopted Levels. $T_{1/2}$: From 1981Ca10, if J^π=1/2 is assumed.
1277.04 *6*	3/2$^-$	0.60 ps *10*	E(level): From Adopted Levels. $T_{1/2}$: From 1981Ca10, if J^π=3/2 is assumed. Γ_0=1.30 *13*. Based on Γ_0/Γ = 0.75 from Table of Isotopes: R.B.Firestone and V.S. Shirley (Wiley, New York, 1996) Vol.1.
1614 *1*			Γ_0=0.71 *13*.
1626 *1*			Γ_0=0.57 *7*.
1778 *1*			Γ_0=0.81 *15*.
1812 *1*			Γ_0=0.63 *18*.
1861 *1*			Γ_0=2.18 *21*.
1923 *1*			Γ_0=1.98 *22*.
1943 *1*			Γ_0=0.72 *16*.
1969 *1*			Γ_0=9.83 *63*.
1997 *1*			Γ_0=0.97 *19*.
2001 *1*			Γ_0=0.77 *17*.
2034 *1*			Γ_0=1.24 *19*.
2049 *1*			Γ_0=0.56 *13*.
2059 *1*			Γ_0=1.03 *20*.
2071 *1*			Γ_0=0.86 *15*.
2075 *1*			Γ_0=1.15 *16*.
2089 *1*			Γ_0=0.66 *16*.
2128 *1*			Γ_0=8.68 *60*.
2137 *1*			Γ_0=0.99 *15*.
2155 *1*			Γ_0=6.42 *48*.
2163 *1*			Γ_0=0.69 *16*.
2196 *1*			Γ_0=0.66 *18*.
2306 *1*			Γ_0=0.95 *23*.
2319 *1*			Γ_0=4.08 *41*.
2352 *1*			Γ_0=1.57 *28*.
2362 *1*			Γ_0=0.84 *18*.
2434 *1*			Γ_0=1.35 *22*.
2468 *1*			Γ_0=3.50 *44*.
2478 *1*			Γ_0=0.63 *18*.
2516 *1*			Γ_0=3.53 *47*.
2544 *1*			Γ_0=0.89 *18*.
2585 *1*			Γ_0=0.76 *18*.
2594 *1*			Γ_0=17.28 *113*.
2604 *1*			Γ_0=4.26 *43*.
2645 *1*			Γ_0=1.17 *17*.
2666 *1*			Γ_0=2.90 *37*.
2680 *1*			Γ_0=30.46 *159*.

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^{103}Rh(γ,γ') 2001St03,1981Ca10 (continued)

^{103}Rh Levels (continued)

E(level)	Comments
2695 *1*	Γ_0=4.14 *41*.
2698 *1*	Γ_0=1.30 *28*.
2706 *1*	Γ_0=4.25 *42*.
2747 *1*	Γ_0=10.84 *88*.
2762 *1*	Γ_0=27.36 *210*.
2801 *1*	Γ_0=9.08 *74*.
2854 *1*	Γ_0=6.78 *64*.
2866 *1*	Γ_0=1.32 *23*.
2911 *1*	Γ_0=1.76 *27*.
2919 *1*	Γ_0=1.07 *28*.
2923 *1*	Γ_0=4.48 *57*.
2944 *1*	Γ_0=2.04 *35*.
2956 *1*	Γ_0=4.13 *40*.
2960 *1*	Γ_0=1.75 *27*.
2966 *1*	Γ_0=0.64 *13*.
2991 *1*	Γ_0=0.89 *12*.
3028 *1*	Γ_0=2.58 *33*.
3056 *1*	Γ_0=1.61 *26*.
3082 *1*	Γ_0=3.58 *67*.
3108 *1*	Γ_0=1.38 *38*.
3114 *1*	Γ_0=1.84 *28*.
3138 *1*	Γ_0=2.37 *37*.
3153 *1*	Γ_0=12.40 *88*.
3165 *1*	Γ_0=1.45 *27*.
3201 *1*	Γ_0=2.29 *54*.
3223 *1*	Γ_0=4.89 *57*.
3242 *1*	Γ_0=2.93 *56*.
3288 *1*	Γ_0=2.34 *35*.
3296 *1*	Γ_0=11.48 *87*.
3315 *1*	Γ_0=3.90 *46*.
3331 *1*	Γ_0=12.05 *86*.
3339 *1*	Γ_0=3.88 *45*.
3345 *1*	Γ_0=4.40 *65*.
3358 *1*	Γ_0=1.57 *40*.
3401 *1*	Γ_0=1.69 *36*.
3411 *1*	Γ_0=1.78 *33*.
3435 *1*	Γ_0=2.60 *47*.
3440 *1*	Γ_0=5.40 *69*.
3449 *1*	Γ_0=2.72 *61*.
3462 *1*	Γ_0=4.52 *78*.
3521 *1*	Γ_0=3.27 *61*.
3531 *1*	Γ_0=4.48 *74*.
3535 *1*	Γ_0=4.04 *73*.
3557 *1*	Γ_0=2.12 *44*.
3573 *1*	Γ_0=6.42 *17*.
3589 *1*	Γ_0=11.93 *137*.
3600 *1*	Γ_0=2.32 *46*.
3613 *1*	Γ_0=5.55 *72*.
3617 *1*	Γ_0=4.82 *83*.
3652 *1*	Γ_0=6.65 *131*.
3660 *1*	Γ_0=3.16 *57*.
3691 *1*	Γ_0=5.08 *79*.
3708 *1*	Γ_0=3.26 *99*.
3728 *1*	Γ_0=4.88 *96*.
3773 *1*	Γ_0=3.93 *73*.
3790 *1*	Γ_0=3.18 *73*.
3798 *1*	Γ_0=3.99 *71*.

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^{103}Rh(γ,γ') 2001St03,1981Ca10 (continued)

^{103}Rh Levels (continued)

E(level)	Comments
3820 *1*	Γ_0=28.12 *226*.
3831 *1*	Γ_0=6.30 *95*.
3890 *1*	Γ_0=7.33 *142*.
3904 *1*	Γ_0=4.06 *95*.
3916 *1*	Γ_0=6.82 *133*.
3936 *1*	Γ_0=8.03 *32*.
3944 *1*	Γ_0=3.80 *117*.
3977 *1*	Γ_0=7.71 *136*.