^{170}Er(n,γ) E=res 2006MuZX

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin, E. A. Mccutchan	NDS 151, 334 (2018)	30-Jun-2018

2006MuZX: evaluation of resonance energies and widths.

2008Bu10: Measured effective resonance energy (129 eV *27*; average value obtained using ^{55}Mn and ^{98}Mo monitors). Observed 296γ and 308γ.

^{171}Er Levels

All resonance data are taken from the evaluation by 2006MuZX.

E(level)[†]	L	E(lab) eV	Comments
S(n)+0.09451 *10*	0	95.07 *10*	gΓ_n=880 meV *40*.
S(n)+0.16354 *15*	[1]	164.59 *15*	gΓ_n=0.66 meV *5*.
S(n)+0.2206 *2*	[1]	221.9 *2*	gΓ_n=0.71 meV *21*.
S(n)+0.2823 *3*	0	284.0 *3*	gΓ_n=600 meV *35*.
S(n)+0.3920 *3*	[1]	394.3 *3*	gΓ_n=0.54 meV *25*.
S(n)+0.4065 *3*	[1]	408.9 *3*	gΓ_n=1.3 meV *4*.
S(n)+0.4810 *4*	[1]	483.8 *4*	gΓ_n=1.0 meV *5*.
S(n)+0.4938 *3*	0	496.7 *3*	gΓ_n=660 meV *40*.
S(n)+0.5807 *5*	[1]	584.1 *5*	gΓ_n=2.3 meV *9*.
S(n)+0.5947 *5*	[1]	598.2 *5*	gΓ_n=4.2 meV *15*.
S(n)+0.6941 *7*	[1]	698.2 *7*	gΓ_n=1.8 meV *8*.
S(n)+0.7252 *7*	[1]	729.5 *7*	gΓ_n=2.2 meV *10*.
S(n)+0.7444 *6*	0	748.8 *6*	gΓ_n=125 meV *16*.
S(n)+0.8045 *8*	[1]	809.2 *8*	gΓ_n=1.0 meV *6*.
S(n)+0.9301 *4*	0	935.6 *4*	gΓ_n=1600 meV *100*.
S(n)+0.9693 *11*	[1]	975.0 *11*	gΓ_n=8 meV *3*.
S(n)+1.0826 *5*	0	1089.0 *5*	gΓ_n=760 meV *50*.
S(n)+1.2235 *6*	0	1230.7 *6*	gΓ_n=38 meV *7*.
S(n)+1.3830 *7*	0	1391.1 *7*	gΓ_n=2840 meV *200*.
S(n)+1.5033 *21*	[1]	1512.1 *21*	gΓ_n=9 meV *5*.
S(n)+1.5151 *8*	0	1524.0 *8*	gΓ_n=71 meV *16*.
S(n)+1.6086 *23*	[1]	1618.1 *23*	gΓ_n=3.4 meV *22*.
S(n)+1.6835 *24*	[1]	1693.4 *24*	gΓ_n=5.8 meV *30*.
S(n)+1.8169 *27*	[1]	1827.6 *27*	gΓ_n=12 meV *6*.
S(n)+1.8333 *28*	0	1844.1 *28*	gΓ_n=25 meV *11*.
S(n)+1.8639 *29*	[1]	1874.9 *29*	gΓ_n=12 meV *5*.
S(n)+1.928 *3*	[1]	1939 *3*	gΓ_n=7 meV *4*.
S(n)+1.9978 *6*	0	2009.6 *6*	gΓ_n=1100 meV *81*.
S(n)+1.9982 *12*	0	2010 *12*	gΓ_n=720 meV *200*.
S(n)+2.075 *3*	[1]	2087 *3*	gΓ_n=3.7 meV *30*.
S(n)+2.0888 *7*	0	2101.1 *7*	gΓ_n=1421 meV *101*.
S(n)+2.178 *4*	0	2191 *4*	gΓ_n=53 meV *20*.
S(n)+2.2361 *7*	0	2249.3 *7*	gΓ_n=2130 meV *160*.
S(n)+2.237 *13*	0	2250 *13*	gΓ_n=1400 meV *500*.
S(n)+2.278 *4*	[1]	2291 *4*	gΓ_n=16 meV *7*.
S(n)+2.3640 *8*	0	2377.9 *8*	gΓ_n=570 meV *78*.
S(n)+2.467 *4*	[1]	2482 *4*	gΓ_n=14 meV *7*.
S(n)+2.579 *5*	0	2594 *5*	gΓ_n=38 meV *16*.
S(n)+2.8140 *10*	0	2830.6 *10*	gΓ_n=4500 meV *450*.
S(n)+2.840 *5*	[1]	2857 *5*	gΓ_n=27 meV *19*.
S(n)+2.911 *6*	[1]	2928 *6*	gΓ_n=10 meV *6*.
S(n)+2.9604 *11*	0	2977.8 *11*	gΓ_n=180 meV *25*.
S(n)+3.001 *6*	[1]	3019 *6*	gΓ_n=21 meV *9*.

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^{170}Er(n,γ) E=res 2006MuZX (continued)

^{171}Er Levels (continued)

E(level)†	L	E(lab) eV	Comments
S(n)+3.065 *6*	[1]	3083 *6*	$g\Gamma_n$=20 meV *8*.
S(n)+3.132 *6*	[1]	3150 *6*	$g\Gamma_n$=15 meV *6*.
S(n)+3.2828 *13*	0	3302.1 *13*	$g\Gamma_n$=650 meV *69*.
S(n)+3.333 *8*	0	3353 *8*	$g\Gamma_n$=55 meV *24*.
S(n)+3.395 *4*	[1]	3415 *4*	$g\Gamma_n$=34 meV *16*.
S(n)+3.4441 *14*	0	3464.4 *14*	$g\Gamma_n$=194 meV *71*.
S(n)+3.497 *4*	[1]	3518 *4*	$g\Gamma_n$=7 meV *5*.
S(n)+3.579 *4*	[1]	3600 *4*	$g\Gamma_n$=28 meV *11*.
S(n)+3.676 *4*	[1]	3698 *4*	$g\Gamma_n$=9 meV *6*.
S(n)+3.6942 *16*	0	3715.9 *16*	$g\Gamma_n$=120 meV *40*.
S(n)+3.8214 *17*	0	3843.9 *17*	$g\Gamma_n$=298 meV *68*.
S(n)+4.043 *5*	[1]	4067 *5*	$g\Gamma_n$=9 meV *7*.
S(n)+4.0995 *18*	0	4123.6 *18*	$g\Gamma_n$=360 meV *51*.
S(n)+4.1688 *19*	0	4193.3 *19*	$g\Gamma_n$=1180 meV *120*.
S(n)+4.2161 *19*	0	4240.9 *19*	$g\Gamma_n$=1400 meV *140*.
S(n)+4.294 *5*	[1]	4319 *5*	$g\Gamma_n$=36 meV *21*.
S(n)+4.3956 *20*	0	4421.5 *20*	$g\Gamma_n$=1500 meV *150*.
S(n)+4.573 *6*	0	4600 *6*	$g\Gamma_n$=110 meV *48*.
S(n)+4.6878 *22*	0	4715.1 *22*	$g\Gamma_n$=1400 meV *140*.
S(n)+5.418 *3*	0	5450 *3*	$g\Gamma_n$=4900 meV *500*.
S(n)+5.911 *3*	0	5946 *3*	$g\Gamma_n$=12 eV *2*.
S(n)+5.997 *3*	0	6032 *3*	$g\Gamma_n$=2400 meV *300*.
S(n)+6.200 *3*	0	6236 *3*	$g\Gamma_n$=4800 meV *500*.
S(n)+6.348 *4*	0	6385 *4*	$g\Gamma_n$=310 meV *120*.
S(n)+6.600 *4*	0	6639 *4*	$g\Gamma_n$=1200 meV *220*.
S(n)+6.792 *4*	0	6832 *4*	$g\Gamma_n$=420 meV *200*.
S(n)+6.823 *4*	0	6863 *4*	$g\Gamma_n$=760 meV *280*.
S(n)+7.145 *4*	0	7187 *4*	$g\Gamma_n$=640 meV *100*.
S(n)+7.243 *4*	0	7286 *4*	$g\Gamma_n$=3100 meV *430*.
S(n)+8.176 *5*	0	8224 *5*	$g\Gamma_n$=1300 meV *250*.
S(n)+8.262 *5*	0	8311 *5*	$g\Gamma_n$=6.5 eV *10*.
S(n)+8.356 *5*	0	8405 *5*	$g\Gamma_n$=24.0 eV *35*.
S(n)+8.843 *6*	0	8895 *6*	$g\Gamma_n$=1250 meV *300*.
S(n)+9.294 *6*	0	9349 *6*	$g\Gamma_n$=1700 meV *500*.
S(n)+9.747 *7*	0	9804 *7*	$g\Gamma_n$=6200 meV *750*.
S(n)+9.995 *7*	0	10054 *7*	$g\Gamma_n$=1500 meV *450*.
S(n)+10.169 *7*	0	10229 *7*	$g\Gamma_n$=4100 meV *600*.
S(n)+10.269 *7*	0	10329 *7*	$g\Gamma_n$=8.3 eV *12*.
S(n)+11.038 *8*	0	11103 *8*	$g\Gamma_n$=810 meV *310*.
S(n)+11.142 *8*	0	11208 *8*	$g\Gamma_n$=7.7 eV *14*.
S(n)+11.215 *8*	0	11281 *8*	$g\Gamma_n$=1900 meV *610*.
S(n)+11.413 *8*	0	11480 *8*	$g\Gamma_n$=9.1 eV *14*.
S(n)+11.489 *9*	0	11557 *9*	$g\Gamma_n$=770 meV *390*.
S(n)+11.540 *9*	0	11608 *9*	$g\Gamma_n$=5.1 eV *8*.
S(n)+11.634 *9*	0	11702 *9*	$g\Gamma_n$=2.1 eV *10*.
S(n)+11.729 *9*	0	11798 *9*	$g\Gamma_n$=1.6 eV *6*.
S(n)+12.355 *9*	0	12428 *9*	$g\Gamma_n$=8.6 eV *12*.
S(n)+13.135 *9*	0	13212 *9*	$g\Gamma_n$=5.3 eV *10*.
S(n)+13.386 *5*	0	13465 *5*	$g\Gamma_n$=1.00 eV *35*.
S(n)+13.725 *6*	0	13806 *6*	$g\Gamma_n$=5.9 eV *9*.
S(n)+13.851 *6*	0	13932 *6*	$g\Gamma_n$=8.3 eV *12*.
S(n)+14.484 *6*	0	14569 *6*	$g\Gamma_n$=3.5 eV *6*.
S(n)+15.314 *7*	0	15404 *7*	$g\Gamma_n$=1.35 eV *40*.
S(n)+15.518 *6*	0	15609 *7*	$g\Gamma_n$=10.0 eV *16*.
S(n)+15.685 *7*	0	15777 *7*	$g\Gamma_n$=6.2 eV *9*.
S(n)+15.951 *7*	0	16045 *7*	$g\Gamma_n$=6.8 eV *11*.
S(n)+16.048 *7*	0	16142 *7*	$g\Gamma_n$=11.0 eV *20*.

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^{170}Er(n,γ) E=res 2006MuZX (continued)

^{171}Er Levels (continued)

E(level)†	L	E(lab) eV	Comments
S(n)+16.352 *7*	0	16448 *7*	$g\Gamma_n$=5.3 eV *11*.
S(n)+16.392 *8*	0	16488 *8*	$g\Gamma_n$=1.75 eV *60*.
S(n)+16.770 *8*	0	16869 *8*	$g\Gamma_n$=9.5 eV *18*.
S(n)+16.913 *8*	0	17012 *8*	$g\Gamma_n$=4.6 eV *11*.
S(n)+16.958 *8*	0	17058 *8*	$g\Gamma_n$=4.4 eV *11*.
S(n)+17.219 *8*	0	17320 *8*	$g\Gamma_n$=5.9 eV *13*.
S(n)+17.669 *8*	0	17773 *8*	$g\Gamma_n$=7.7 eV *15*.
S(n)+18.384 *9*	0	18492 *9*	$g\Gamma_n$=3.0 eV *9*.
S(n)+18.512 *9*	0	18621 *9*	$g\Gamma_n$=15.0 eV *22*.
S(n)+19.206 *9*	0	19319 *9*	$g\Gamma_n$=4.9 eV *9*.
S(n)+19.422 *10*	0	19536 *10*	$g\Gamma_n$=6.0 eV *15*.
S(n)+19.861 *10*	0	19978 *10*	$g\Gamma_n$=5.4 eV *11*.
S(n)+20.182 *10*	0	20301 *10*	$g\Gamma_n$=2.8 eV *7*.
S(n)+20.446 *10*	0	20566 *10*	$g\Gamma_n$=17 eV *3*.
S(n)+20.880 *10*	0	21003 *10*	$g\Gamma_n$=7.7 eV *16*.
S(n)+20.979 *11*	0	21102 *11*	$g\Gamma_n$=14.0 eV *26*.
S(n)+21.391 *11*	0	21517 *11*	$g\Gamma_n$=6.6 eV *12*.
S(n)+21.811 *11*	0	21939 *11*	$g\Gamma_n$=17 eV *3*.
S(n)+22.191 *12*	0	22322 *12*	$g\Gamma_n$=4.0 eV *15*.
S(n)+22.243 *12*	0	22374 *12*	$g\Gamma_n$=4.6 eV *17*.
S(n)+22.455 *12*	0	22587 *12*	$g\Gamma_n$=9.8 eV *18*.
S(n)+22.670 *12*	0	22803 *12*	$g\Gamma_n$=3.8 eV *13*.
S(n)+22.770 *12*	0	22904 *12*	$g\Gamma_n$=4.3 eV *17*.
S(n)+23.104 *12*	0	23240 *12*	$g\Gamma_n$=12.5 eV *31*.
S(n)+23.556 *12*	0	23695 *12*	$g\Gamma_n$=8.5 eV *20*.

† Given here As S(n)+E(n)(c.m.), where S(n)(^{171}Er)=5681.6 *4* (2017Wa10) and E(n)(c.m.)=E(n)(lab)(170/171).