^{164}Er(n,γ),(n,n):resonances 2018MuZZ

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 194,460 (2024)	31-Oct-2022

All data are from evaluation by 2018MuZZ.
1968Ka17: E(n)=7 eV to 606 eV. Measured γ-ray yields, deduced cross sections, neutron resonances and width parameters.
^{164}Er(n,n) E=low: 1997Kn01: deduced resonances.
S(n)(^{165}Er)=6650.1 *6* (2021Wa16).

^{165}Er Levels

E(level)	J$^\pi$	L	Comments
S(n)-0.02454?	1/2$^+$	0	E(level): fictitious resonance to fit the tail below the S(n) value for ^{165}Er. $g\Gamma^0_n$=15.78 meV.
S(n)+0.00790 *2*	1/2$^+$	0	$g\Gamma_n$=0.65 meV *8*, $g\Gamma^0_n$=0.23 meV *3*.
S(n)+0.03054 *10*	1/2$^+$	0	$g\Gamma_n$=4.1 meV *4*, $g\Gamma^0_n$=0.75 meV *7*.
S(n)+0.0496 *2*	1/2$^+$	0	$g\Gamma_n$=4 meV *1*, $g\Gamma^0_n$=0.57 meV *14*.
S(n)+0.0538 *4*	1/2$^+$	0	$g\Gamma_n$=2.3 meV *2*, $g\Gamma^0_n$=0.31 meV *6*.
S(n)+0.05661 *9*	1/2$^+$	0	$g\Gamma_n$=6.4 meV *5*, $g\Gamma^0_n$=0.85 meV *7*.
S(n)+0.10859 *6*	1/2$^+$	0	E(level): E(n)=119 eV *4* in 1968Ka17. $g\Gamma_n$=51 meV *5*, $g\Gamma^0_n$=4.9 meV *5*.
S(n)+0.13096 *8*	1/2$^+$	0	$g\Gamma_n$=104 meV *10*, $g\Gamma^0_n$=9.1 meV *9*.
S(n)+0.13695 *9*	1/2$^+$	0	$g\Gamma_n$=13 meV *2*, $g\Gamma^0_n$=1.1 meV *2*.
S(n)+0.16073 *18*	1/2$^+$	0	$g\Gamma_n$=60 meV *8*, $g\Gamma^0_n$=4.73 meV *63*.
S(n)+0.19463 *14*	1/2$^+$	0	$g\Gamma_n$=69 meV *8*, $g\Gamma^0_n$=4.95 meV *57*.
S(n)+0.21497 *17*	1/2$^+$	0	$g\Gamma_n$=31 meV *6*, $g\Gamma^0_n$=2.1 meV *4*.
S(n)+0.22543 *18*	1/2$^+$	0	$g\Gamma_n$=87 meV *9*, $g\Gamma^0_n$=5.8 meV *6*.
S(n)+0.302 *2*	1/2$^+$	0	$g\Gamma_n$=170 meV *70*, $g\Gamma^0_n$=9.8 meV *40*.
S(n)+0.317 *2*	1/2$^+$	0	$g\Gamma_n$=240 meV *80*, $g\Gamma^0_n$=13.6 meV *45*.
S(n)+0.41995 *25*	1/2$^+$	0	$g\Gamma_n$=264 meV *30*, $g\Gamma^0_n$=13.0 meV *15*.
S(n)+0.61157 *24*	1/2$^+$	0	$g\Gamma_n$=174 meV *35*, $g\Gamma^0_n$=7.0 meV *14*.
S(n)+0.65424 *46*	1/2$^+$	0	$g\Gamma_n$=79 meV *25*, $g\Gamma^0_n$=3.1 meV *10*.
S(n)+0.76022 *56*	1/2$^+$	0	$g\Gamma_n$=140 meV *40*, $g\Gamma^0_n$=5.2 meV *15*.