^{63}Cu(α,α'), (e,e') 1965Ha27,1963Ke05,1964On04

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Yang Dong, Huo Meirong,	ENSDF	28-Aug-2008

(α,α') E=25, 50 MeV. FWHM=40 keV at 25 MeV, and 90 keV at 50 MeV (1965Ha27)
E=44 MeV (1963Br29)
E=1.4, 2.9, 3.9, 4.6 MeV (1961Sa03)
E=25 MeV, 150 ≤ FWHM ≤ 250, deduced β_L (1990Ba23)

(e,e') E=183, 300, 600 MeV (1963Ke05), data analyzed in 1964On04
E ≤ 300 MeV (1986Ka15), deduced resonance parameters for GDR and GQR :

	GDR	ISGQR	IVGQR
E(level)(MeV)	17.2	14.9	32.0
Γ(MeV)	6.1	5.0	18.2
EWSR(%)	109	89	82

^{63}Cu Levels

E(level)[†]	J$^\pi$[#]	L[‡]	B(EL)[@]	Comments
0	3/2$^-$			J$^\pi$: $\sigma(\theta)$, coupled channel analysis, see 1990Ba23.
668	1/2$^-$	2	0.009	Fitted β_L=0.04 (1990Ba23).
961		2	0.0297	Fitted β_L=0.08 (1990Ba23).
1327		2	0.0324	
1412		(2)		E(level): weakly excited.
1547		(2)	0.00144	E(level): weakly excited.
2510	9/2$^+$	3		
3320		3		
3430	5/2$^+$,7/2$^+$			E(level): from 1961Sa03.
3510		3		
3740		3		
3830	5/2$^+$,7/2$^+$	3		
4470	3/2$^+$			E(level): from 1961Sa03.
5.5×10^3 *2*		4		E(level),L: from (e,e') (1963Ke05,1964On04).
7.5×10^3 *2*				E(level): from (e,e') (1963Ke05,1964On04).

[†] From 1965Ha27, except where noted otherwise.
[‡] From comparison of $\sigma(\theta)$ with shapes for levels with known J^π (1965Ha27), except as noted.
[#] From 1961Sa03, except as noted.
[@] Deduced from data given in 1965Ha27 assuming adopted J^π.