^{64}Ni(d,^{2}He) 2007Po06

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen	NDS 178, 41 (2021).	12-Nov-2021

2007Po06 (also 2006PoZZ): E(d)=171 MeV. Measured particle spectra at 0°, 3° and 5° (lab system). The protons were momentum analyzed using the Big-Bite spectrometer (BBS) and the EuroSuperNova detection system at the KVI, Groningen facility. FWHM=110 keV.
Additional information 1.

^{64}Co Levels

E(level)	J$^{\pi}$[c]	L[†]	B(GT)	Comments
0	1^{+}	0	0.63 *4*	J$^{\pi}$: from the Adopted Levels. σ(L=0)=0.30 mb/sr *5*; σ(L=0)/σ(total)=1.0.
296 *22*	(1^{+},2^{+},3^{+})	0+2	0.013 *10*	σ(L=0)=0.006 mb/sr *4*; σ(L=0)/σ(total)=0.54.
453 *21*	(1^{+})	0	0.021 *6*	σ(L=0)=0.010 mb/sr *2*; σ(L=0)/σ(total)=1.0.
678 *21*	(1^{+})	0	0.018 *5*	σ(L=0)=0.008 mb/sr *1*; σ(L=0)/σ(total)=1.0.
836 *24*	(1^{+},2^{+},3^{+})	0+2	0.009 *5*	σ(L=0)=0.004 mb/sr *2*; σ(L=0)/σ(total)=0.80.
1121 *18*	(1^{+},2^{+},3^{+})	0+2	0.021 *13*	σ(L=0)=0.009 mb/sr *6*; σ(L=0)/σ(total)=0.83.
1396 *15*	(1^{+})	0	0.093 *21*	σ(L=0)=0.041 mb/sr *4*; σ(L=0)/σ(total)=1.0.
1543[‡] *20*	[‡]	0+1[‡]	0.066[‡] *19*	
1650[‡] *22*	[‡]	0+1[‡]	0.066[‡] *19*	
1773[‡] *15*	(0^{+},1^{-},2^{-})[‡]	0+1[‡]	0.066[‡] *19*	
1974[#] *26*	(0^{+},1^{-},2^{-})[#]	0+1[#]	0.085[#] *26*	
2065[#] *29*	(0^{+},1^{-},2^{-})[#]	0+1[#]	0.085[#] *26*	
2413[@] *23*	(0^{+},1^{-},2^{-})[@]	0+1[@]	0.108[@] *35*	
2494[@] *20*	(0^{+},1^{-},2^{-})[@]	0+1[@]	0.108[@] *35*	
2681[&] *20*	(0^{+},1^{-},2^{-})[&]	0+1[&]	0.017[&] *5*	
2817[&] *23*	(0^{+},1^{-},2^{-})[&]	0+1[&]	0.017[&] *5*	
3074[a] *30*	(0^{+},1^{-},2^{-})[a]	0+1[a]	0.055[a] *26*	
3188[a] *30*	(0^{+},1^{-},2^{-})[a]	0+1[a]	0.055[a] *26*	
3486[b] *20*	(0^{+},1^{-},2^{-})[b]	0+1[b]	0.049[b] *21*	
3644[b] *27*	(0^{+},1^{-},2^{-})[b]	0+1[b]	0.049[b] *21*	
4870 *40*				E(level): level listed in the text, not in table I of 2007Po06. L: probable L=0 transition from strong intensity at low angles.

[†] From peaking of cross sections near 0°. The σ(L=0)/σ(total) ratio indicates L=0 fraction of the total cross section.
[‡] Combined for 1543+1650+1773 levels; σ(L=0)=0.029 mb/sr *6*, and σ(L=0)/σ(total)=0.97 for the composite.
[#] Combined for 1974+2065 levels; σ(L=0)=0.036 mb/sr *8*; σ(L=0)/σ(total)=0.95 for the composite.
[@] Combined for 2413+2494 levels; σ(L=0)=0.045 mb/sr *11*; σ(L=0)/σ(total)=0.89 for the composite.
[&] Combined for 2681+2817 levels; σ(L=0)=0.007 mb/sr *1*; σ(L=0)/σ(total)=0.74 for the composite.
[a] Combined for 3074+3188 levels; σ(L=0)=0.022 mb/sr *9*; σ(L=0)/σ(total)=0.81 for the composite.
[b] Combined for 3486+3644 levels; σ(L=0)=0.019 mb/sr *7*; σ(L=0)/σ(total)=0.90 for the composite.
[c] From L(d,^{2}He) unless otherwise stated.