

^{59}Cu p decay **2002Ru06**

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Caroline D. Nesaraja, Scott D. Geraedts and Balraj Singh		NDS 111,897 (2010)	12-Jan-2010

Parent: ^{59}Cu : E=x; Q(p)=3418.6 4; %p decay=?

^{59}Cu -Q(p): From [2021Wa16](#).

2002Ru06: levels in ^{58}Ni from proton decay of high-spin states of ^{59}Cu formed in $^{28}\text{Si}(^{36}\text{Ar},\alpha p\gamma)$ reaction.

 ^{58}Ni Levels

Levels at 7313,8⁺ (decaying by 1246 γ and 1929 γ) and 7445,9⁺ (decaying by 842 γ and 1379 γ) shown in level scheme figure 1 of [2002Ru06](#) do not seem to be populated in prompt proton decay of ^{59}Cu levels, thus omitted here.

E(level)	$J^{\pi\dagger}$	Comments
0	0 ⁺	
1454	2 ⁺	
2459	4 ⁺	E(level): level populated by E(p)=1916- and 1949-keV proton branches from 7792,17/2 ⁺ and 7825,17/2 ⁺ levels in ^{59}Cu , respectively.
3620	4 ⁺	
4383	5 ⁺	
5127	6 ⁺	
5384	6 ⁺	
5588	5 ⁻	
6067	7 ⁺	
6084	7 ⁻	E(level): level populated by E(p)=2484-keV proton branch from 11984,23/2 ⁻ level in ^{59}Cu .
6604	8 ⁺	E(level): level populated by E(p)=1897- and 2019-keV proton branches from 11917,25/2 ⁺ and 12039,25/2 ⁺ levels in ^{59}Cu , respectively.

[†] As proposed by [2002Ru06](#).

 $\gamma(^{58}\text{Ni})$

E_{γ}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	E_{γ}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}	E_{γ}	$E_i(\text{level})$	J_i^{π}	E_f	J_f^{π}
496	6084	7 ⁻	5588	5 ⁻	956	6084	7 ⁻	5127	6 ⁺	1764	5384	6 ⁺	3620	4 ⁺
537	6604	8 ⁺	6067	7 ⁺	1001	5384	6 ⁺	4383	5 ⁺	1923	4383	5 ⁺	2459	4 ⁺
683	6067	7 ⁺	5384	6 ⁺	1005	2459	4 ⁺	1454	2 ⁺	2166	3620	4 ⁺	1454	2 ⁺
700	6084	7 ⁻	5384	6 ⁺	1161	3620	4 ⁺	2459	4 ⁺	2668	5127	6 ⁺	2459	4 ⁺
744	5127	6 ⁺	4383	5 ⁺	1454	1454	2 ⁺	0	0 ⁺	2924	5384	6 ⁺	2459	4 ⁺
763	4383	5 ⁺	3620	4 ⁺	1476	6604	8 ⁺	5127	6 ⁺	3129	5588	5 ⁻	2459	4 ⁺
939	6067	7 ⁺	5127	6 ⁺	1684	6067	7 ⁺	4383	5 ⁺	3625	6084	7 ⁻	2459	4 ⁺

^{59}Cu p decay 2002Ru06

Decay Scheme

