Coulomb excitation 2003Gu11

History

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

2003Gu11: ^{89}Y(^{64}Cu,^{64}Cu′γ) E=80 MeV. The ^{64}Cu radioactive beam was produced by first forming the isotope in ^{63}Cu(n,γ) E=thermal reaction, then the ^{64}Cu ions were accelerated by a Tandem accelerator to an energy of 80 MeV. Measured Eγ, Iγ of the γ ray from the first excited state, deduced cross section and B(E2)(W.u.). The radioactive beam consisted of ^{64}Cu and ^{64}Ni. Coulomb excitation of first excited state in ^{181}Ta in ^{181}Ta(^{64}Ni,^{64}Ni′γ) was used as a test of the experimental setup. The B(E2)(↑)=1.89 obtained for 136.266, 9/2$^+$ level was in good agreement with the Adopted value of 2.0.

^{64}Cu Levels

E(level)	J$^\pi$[†]
0	1$^+$
159.282	2$^+$

[†] From the Adopted Levels.

γ(^{64}Cu)

E$_\gamma$	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$	Comments
159.282	159.282	2$^+$	0	1$^+$	B(E2)(W.u.)<49 (2003Gu11).

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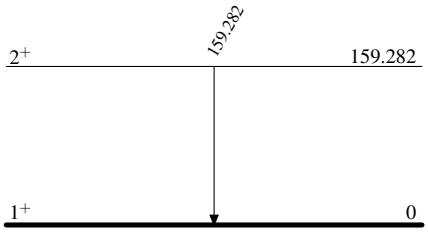
Level Scheme



$^{64}_{29}Cu_{35}$