## $^{54}$Cr($^{3}$He,d) 1969Cu02,1969Ra02

| Type | Author | History Citation | Literature Cutoff Date |
|---|---|---|---|
| Full Evaluation | Huo Junde | NDS 109, 787 (2008) | 30-Apr-2007 |

1969Cu02: E=8,9.5 MeV, FWHM=25-85 keV; enriched (94%) targets; broad-range magnetic spectrograph and photographic plates; measured $\sigma$(ED,$\theta$); DWBA analysis.

1969Ra02: E=10.0 MeV, 30 keV (FWHM); enriched (97.98%) targets; multiple-gap magnetic spectrograph and nuclear emulsions; measured $\sigma$(ED,$\theta$); optical-model and DWBA analysis.

See also 1973NaYM.

### $^{55}$Mn Levels

| E(level)† | Jπ† | L† | C$^2$S′† | Comments |
|---|---|---|---|---|
| 0.0 | 5/2$^-$ | (3) | 0.21 | |
| 127 *10* | 7/2$^-$ | 3 | 3.22 | |
| 983 *5* | 9/2$^-$ | | | Configuration=($\pi$ f$_{7/2}$)$^{-3}$ (1969Ra02).<br>E(level): from (p,p′) (1957Ma22). 1969Ra02 observed for weak transitions. With small cross sections to the state. |
| 1289 *5* | 11/2$^-$ | | | Configuration=($\pi$ f$_{7/2}$)$^{-3}$ (1969Ra02).<br>E(level): from (p,p′) (1957Ma22) for weak transition. |
| 1527 *15* | 3/2$^-$ | 1 | 0.51 | |
| 1881 *15* | (7/2)$^-$ | 3 | 0.28 | |
| 2198 *15* | | | | |
| 2250 *15* | (3/2)$^-$ | 1 | 1.35 | |
| 2426 *15* | (1/2$^+$) | (0) | 0.05 | |
| 2560 *15* | | 1 | 0.30 | |
| 2742 *15* | | | | |
| 2984 *15* | (3/2)$^+$ | 2 | 0.10 | |
| 3028 *15* | | 1 | 0.24 | C$^2$S′: 1969Cu02 give C$^2$S′=0.46. |
| 3070 *15* | | | | |
| 3147 *15* | | 3 | 0.42 | C$^2$S′: 1969Cu02 give C$^2$S′=1.14. |
| 3260 *15* | | | | |
| 3429 *15* | | 1 | 0.20 | |
| 3524 *15* | | 1 | 0.29 | |
| 3608 *15* | (5/2)$^-$ | 3 | 1.53 | C$^2$S′: 1969Cu02 give C$^2$S′=4.07. |
| 3911 *15* | | 1 | 0.02 | |
| 3998 *15* | | 1 | 0.18 | C$^2$S′: 1969Cu02 give C$^2$S′=0.36. |
| 4173 *15* | | | | |
| 4218 *15* | | 1 | 0.08 | L,C$^2$S′: from 1969Cu02. |
| 4404? *15* | | (3) | 0.17 | E(level): evaluator regards level observed only by 1969Cu02 as tentative. |
| 4493 *15* | (1/2$^-$,3/2$^-$) | 1 | 0.06 | C$^2$S′: 1969Cu02 give C$^2$S′=0.13. |
| 4586 *15* | (1/2$^-$,3/2$^-$) | 1 | 0.05 | |
| 4638 *15* | (1/2$^-$,3/2$^-$) | 1 | 0.14 | C$^2$S′: 1969Cu02 give C$^2$S′=0.31. |
| 4742 *15* | (1/2$^-$,3/2$^-$) | 1 | 0.06 | C$^2$S′: 1969Cu02 give C$^2$S′=0.14. |
| 4804 *15* | (1/2$^-$,3/2$^-$) | 1 | 0.02 | |
| 4896 *15* | | 3 | 0.20 | |
| 4997 *15* | | | | |
| 5026 *15* | | | | |
| 5058 *15* | | | | |
| 5085 *15* | | 1 | 0.30 | L: assignment applies to 4997+5026+5058+5085 levels; strengths are about 0.05, 0.06, 0.07, and 0.12 for each level. |
| 5182 *15* | | 1 | 0.07 | |
| 5366 *15* | | 1 | 0.24 | |
| 5498 *15* | | 3 | 1.05 | |

† From 1969Ra02, except as noted.