

$^{54}\text{Cr}(\text{d,p}\gamma)$ 1971RoYV

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

E=4.5 MeV, target: enriched ^{54}Cr foil evaporated into carbon backing ($20 \mu\text{g}/\text{cm}^2$); Ge(Li) (40 cm^3) for γ , resolution: 16 keV for 1332-keV γ ; silicon surface-barrier annular detector (150 cm^2) for protons, resolution: 40 keV for 6 MeV.

 ^{55}Cr Levels

E(level) [†]	J^π [‡]	Comments
0.0	$3/2^-$	
245	$1/2^-$	
524	$5/2^-$	
573	$3/2^-$	
893	$5/2^-$	
1135	$7/2^-$	J^π : the authors assumed E1 transitions from 2031 (J^π : $5/2^+$) and 2098 (J^π : $9/2^+$) levels to 1135 level.
1229	$7/2^-$	
1487	$1/2^-$	
2031	$5/2^+$	J^π : preferred by shell model.
2098	$9/2^+$	J^π : preferred by shell model.
2283	$1/2^+$	
2570	$5/2^-$	
2622	$5/2^-$	
2695	$1/2^-$	

[†] Quoted by authors from (d,p) data of 1966Ma42.

[‡] J^π from (d,p) and authors' shell-model analyses.

 $\gamma(^{55}\text{Cr})$

E_γ	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	I_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π
245	100	245	$1/2^-$	0.0	$3/2^-$	1341	48 10	2570	$5/2^-$	1229	$7/2^-$
320	9 2	893	$5/2^-$	573	$3/2^-$	1458	66 13	2031	$5/2^+$	573	$3/2^-$
328	17 3	573	$3/2^-$	245	$1/2^-$	1487	44 9	1487	$1/2^-$	0.0	$3/2^-$
336	32 6	1229	$7/2^-$	893	$5/2^-$	1677	52 10	2570	$5/2^-$	893	$5/2^-$
369	4 1	893	$5/2^-$	524	$5/2^-$	1710	45 9	2283	$1/2^+$	573	$3/2^-$
524	100	524	$5/2^-$	0.0	$3/2^-$	2031	28 6	2031	$5/2^+$	0.0	$3/2^-$
573	83 17	573	$3/2^-$	0.0	$3/2^-$	2038	39 8	2283	$1/2^+$	245	$1/2^-$
613	100	1135	$7/2^-$	524	$5/2^-$	2046 [‡]	<15	2570	$5/2^-$	524	$5/2^-$
705	9 2	1229	$7/2^-$	524	$5/2^-$	2098	100	2622	$5/2^-$	524	$5/2^-$
869	53 11	2098	$9/2^+$	1229	$7/2^-$	2122	43 9	2695	$1/2^-$	573	$3/2^-$
893	87 17	893	$5/2^-$	0.0	$3/2^-$	2171	26 5	2695	$1/2^-$	524	$5/2^-$
896	6 1	2031	$5/2^+$	1135	$7/2^-$	2283	16 3	2283	$1/2^+$	0.0	$3/2^-$
914	44 9	1487	$1/2^-$	573	$3/2^-$	2450	13 3	2695	$1/2^-$	245	$1/2^-$
963	47 9	2098	$9/2^+$	1135	$7/2^-$	2570 [‡]	<11	2570	$5/2^-$	0.0	$3/2^-$
1229	59 12	1229	$7/2^-$	0.0	$3/2^-$	2622 [‡]	<15	2622	$5/2^-$	0.0	$3/2^-$
1242	12 2	1487	$1/2^-$	245	$1/2^-$	2695	18 4	2695	$1/2^-$	0.0	$3/2^-$

[†] Percent branching ratios from each level. $\Delta I_\gamma(\text{rel}) \approx 20\%$.

[‡] Placement of transition in the level scheme is uncertain.

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Legend

Level Scheme
Intensities: Relative I_γ

- ▶ $I_\gamma < 2\% \times I_\gamma^{max}$
- ▶ $I_\gamma < 10\% \times I_\gamma^{max}$
- ▶ $I_\gamma > 10\% \times I_\gamma^{max}$
- - -▶ γ Decay (Uncertain)

