^{56}Fe(μ^-,νpnγ) 2006Me08

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Yang Dong, Huo Junde	NDS 121, 1 (2014)	20-Jun-2014

The μ^- beam obtained from decay of π^- beam at 90 MeV/c. Measured Iγ, $\gamma\gamma$, γ-p using two HPGe detectors at TRIUMF facility.

Muonic Lyman series for natural Iron

μ x ray	Energy		Intensity in percent
2p-1s	1253.06 *6*	a	74.5 *15*
2p-1s	1257.19 *5*	a	
3p-1s	1522.3 *3*		7.5 *4*
4p-1s	1615.3 *3*		2.7 *2*
5p-1s	1658.2 *3*		1.6 *2*
6p-1s	1681.7 *3*		2.2 *2*
7p-1s	1695.7 *3*		2.0 *2*
8p-1s	1704.7 *3*		1.2 *2*
(9-∞)p-1s	1708-1733		8.4 *10*

a: From 1978Ha24, used as calibration standard.

Muonic Balmer series for natural Iron

μ x ray	Energy	Intensity in percent
3d-2p	265.3 *3*	28.8
3d-2p	268.9 *3*	16.6
4d-2p	358.0 *3*	5.4
4d-2p	362.0 *3*	3.1
5d-2p	400.6 *3*	5.9
5d-2p	404.6 *3*	
6d-2p	423.8 *3*	3.4
6d-2p	427.8 *3*	
7d-2p	437.8 *3*	3.5
7d-2p	442.5 *3*	
8d-2p	447.3 *3*	1.5
8d-2p	451.5 *3*	
(9-∞)d-2p	455-475	5.9

^{54}Cr Levels

E(level)†	J$^\pi$†
0.0	0$^+$
834.855 *3*	2$^+$

† From Adopted Levels.

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$\gamma(^{54}Cr)$

E_γ [†]	I_γ [‡]	E_i(level)	J_i^π	E_f	J_f^π
834.848 *3*	2.3 *4*	834.855	2^+	0.0	0^+

[†] From Adopted Gammas.
[‡] Percent γ-ray yield.

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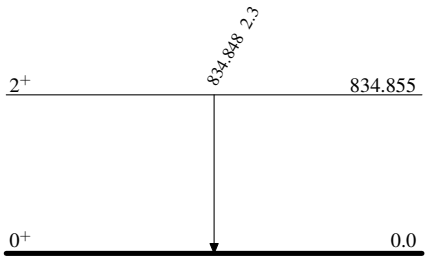
Level Scheme

Intensities: Percent γ-ray yield per muon capture



$^{54}_{24}Cr_{30}$