^{54}Fe(d,pγ) 1966Ge05,1971Do13,1972Mc15

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

1966Ge05: E=7 MeV; enriched target; Si(Li) for protons (FWHM: 150 keV); γ rays emitted at 130°, 90°, 45°, and 135° were detected with NaI; measured p$\gamma(\theta)$.

1971Do13: E=4.2 MeV; measured mean lives of the 0.41-, 0.93-, 1.32-, and 1.41-MeV states, DSAM; Ge(Li) detector.

1972Mc15: E=3 MeV; annular Si surface-barrier detector for back-angle protons (resolution≈150 keV), Ge(Li) for γ (0°–90°); measured p$\gamma(\theta)$.

^{55}Fe Levels

E(level)[†]	J$^\pi$[#]	T$_{1/2}$[@]	E(level)[†]	J$^\pi$[#]	T$_{1/2}$[@]	E(level)[†]	J$^\pi$[#]
0.0			1410 *10*		28 ps *+28−14*	3556[‡] *10*	3/2$^-$
411 *10*	1/2$^-$	6 ps *+6−3*	1918.1 *15*			3788.1 *10*	1/2$^-$[&]
930 *10*		8 ps *3*	2050.1 *15*			3804 *10*	3/2$^-$
1320 *10*		10 ps *2*	2490[‡] *10*	3/2$^-$		3814[‡]	

[†] From 1971Do13, except as noted.
[‡] From 1966Ge05.
[#] From 1966Ge05, based on the isotropy and anisotropy of p$\gamma(\theta)$, except as noted.
[@] From 1971Do13 (DSA).
[&] From 1972Mc15, based on isotropy of p$\gamma(\theta)$.

γ(^{55}Fe)

E$_\gamma$[†]	I$_\gamma$[#]	E$_i$(level)	J$_i^\pi$	E$_f$	Comments
410 *10*	100	411	1/2$^-$	0.0	
930 *10*	100	930		0.0	
1320 *10*	100	1320		0.0	
1410 *10*	100	1410		0.0	
1738 *1*	43 *6*	3788.1	1/2$^-$	2050.1	Additional information 1.
1870[‡] *1*	25[‡] *4*	3788.1	1/2$^-$	1918.1	Additional information 2.
2484[‡] *1*	100[‡] *15*	3804	3/2$^-$	1320	Additional information 4.
2490 *10*	100	2490	3/2$^-$	0.0	
3.56×10^3[@] *10*	100	3556	3/2$^-$	0.0	
3788[‡] *1*	32[‡] *5*	3788.1	1/2$^-$	0.0	Additional information 3.

[†] From 1971Do13, except as noted.
[‡] From 1972Mc15.
[#] Percentage branching ratio for each level.
[@] From 1966Ge05.

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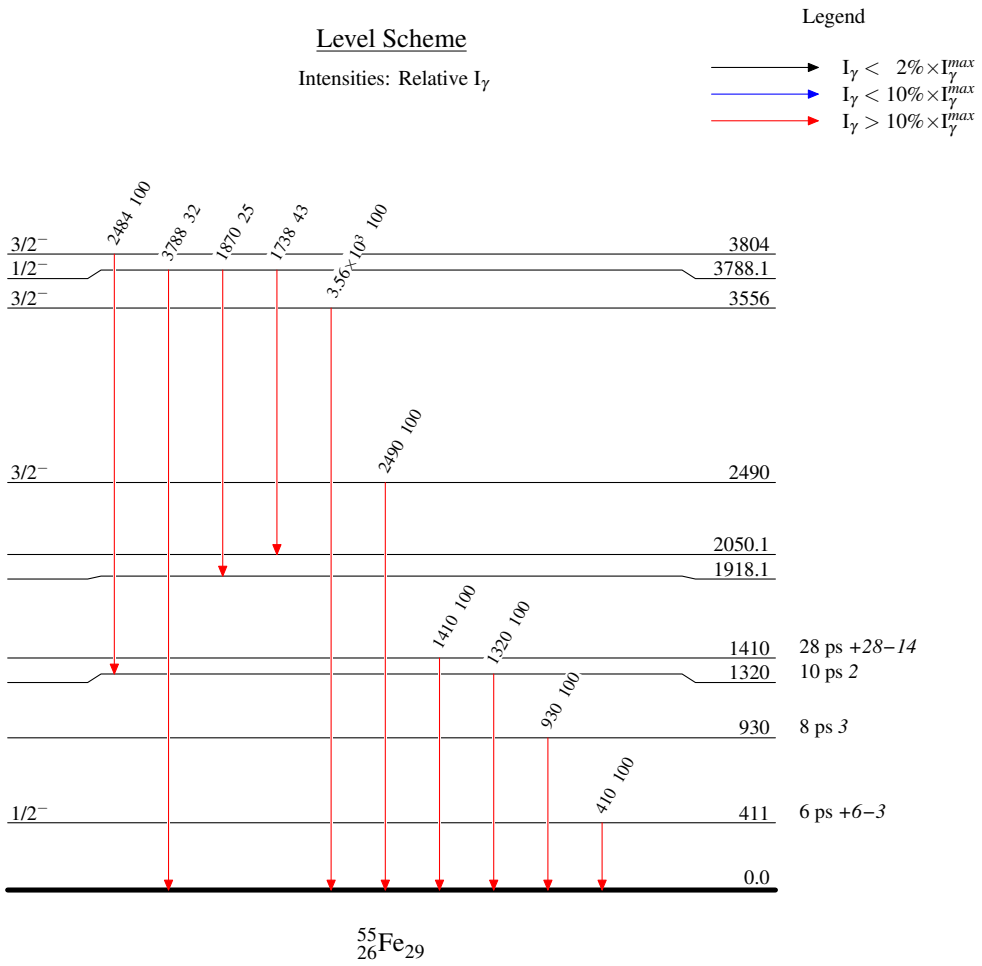
Level Scheme

Intensities: Relative I_γ



$^{55}_{26}Fe_{29}$