

Coulomb excitation [1981Le02](#),[1981Ha23](#),[1979An04](#)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Huo Junde, Huo Su, Yang Dong		NDS 112, 1513 (2011)	29-Oct-2009

Others: [1969Sp05](#), [1972Ca05](#), [1967No04](#), [1970Sc15](#), [1972Le19](#), [1971Th14](#), [1965Es01](#).

$^{56}\text{Fe}(\alpha, \alpha')$: E=6-9 MeV ([1965Ro09](#)); E=7.5, 8.0 MeV ([1972Ca05](#)); E=3-6.5 MeV ([1979An04](#)).

$^{56}\text{Fe}(^{12}\text{C}, ^{12}\text{C}')$: E=22 MeV ([1981Le02](#)).

$^{56}\text{Fe}(^{14}\text{C}, ^{14}\text{C}')$: E=51 MeV ([1981Ha23](#)).

$^{56}\text{Fe}(^{16}\text{O}, ^{16}\text{O}')$: E=27, 30 MeV ([1972Ca05](#)); E=22-40 MeV ([1971Th14](#)); E=25, 30 MeV ([1970Sc15](#)); E=14-35 MeV, DSA ([1969Sp05](#)); E=33 MeV ([1964El03](#) and [1967No04](#)); E=34 MeV, DSA ([1965Es01](#)).

$^{56}\text{Fe}(^{32}\text{S}, ^{32}\text{S}'\gamma)$: E=65 MeV ([1972Le19](#)); E=56 MeV ([1971Th14](#)).

For Coulomb-nuclear interference, see [1974St11](#).

See also [1980GI06](#).

 ^{56}Fe Levels

E(level) [†]	J ^π [†]	T _{1/2}	Comments
0	0 ⁺		
846.75 1	2 ⁺	6.07 ps 23	<p>B(E2)[†]=0.107 4 g=+0.60 10 (1974Hu01) Q=-0.233 T_{1/2}: from B(E2). Others: 7.8 ps +28-17 (1965Es01), DSA 7.1 ps 14 (1969Sp05), DSA. B(E2)[†]: From weighted average of values 0.109 15 (1969Sp05), 0.111 6 (1972Ca05), and 0.102 6 (1981Le02). Others: 1964El03 report the ratio B(E2)[†](847)=(9.30 9)×B(E2) (668 level in ⁶³Cu). For B(E2)(⁶³Cu)=0.0113 8 (1980Ku08), one gets B(E2)(847)=0.105 8. 0.097 (1964El03,1967No04).</p> <p>Q: From weighted average of -0.19 8 (1981Le02), -0.23 3 (1971Th14), and -0.25 6 (1972Le09), based on reorientation effect. Others: -0.34 6 (1970Sc15), -0.12 16 or +0.02 16 (1972Ca05).</p>

[†] From Adopted Levels.