

$^{58}\text{Ni}(\text{d},\alpha\gamma)$ 1978Ka02

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

E=7 MeV, measured $E\gamma$, $\alpha\gamma$ -coincidence, and DSA; shell-model calculations.

 ^{56}Co Levels

E(level) [†]	$J^{\pi\ddagger}$	$T_{1/2}$ [#]	E(level) [†]	$J^{\pi\ddagger}$	$T_{1/2}$ [#]
0.0	4 ⁺		1720.2 4	1 ⁺	0.31 ps +38-13
158.38 3	3 ⁺		1930.4 3	3 ⁺	33 fs +8-7
576.4 2	5 ⁺	0.28 ps +7-5	2060.0 4	2 ⁺	24 fs 6
829.76 17	4 ⁺	>1.4 ps	2282.3 4	7 ⁺	>1.25 ps
970.20 19	2 ⁺	0.139 ps +31-24	2469.2 5	(4 ⁺)	16 fs +9-8
1009.21 20	5 ⁺	0.38 ps +14-9	2635.6 4	1 ⁺	14 fs +8-7
1114.50 19	3 ⁺	0.139 ps +28-24	2730.4 7	1 ⁺	69 fs +21-17
1450.64 20	0 ⁺				

[†] From $E\gamma$ and scheme by using least-squares fits.

[‡] From Adopted Levels.

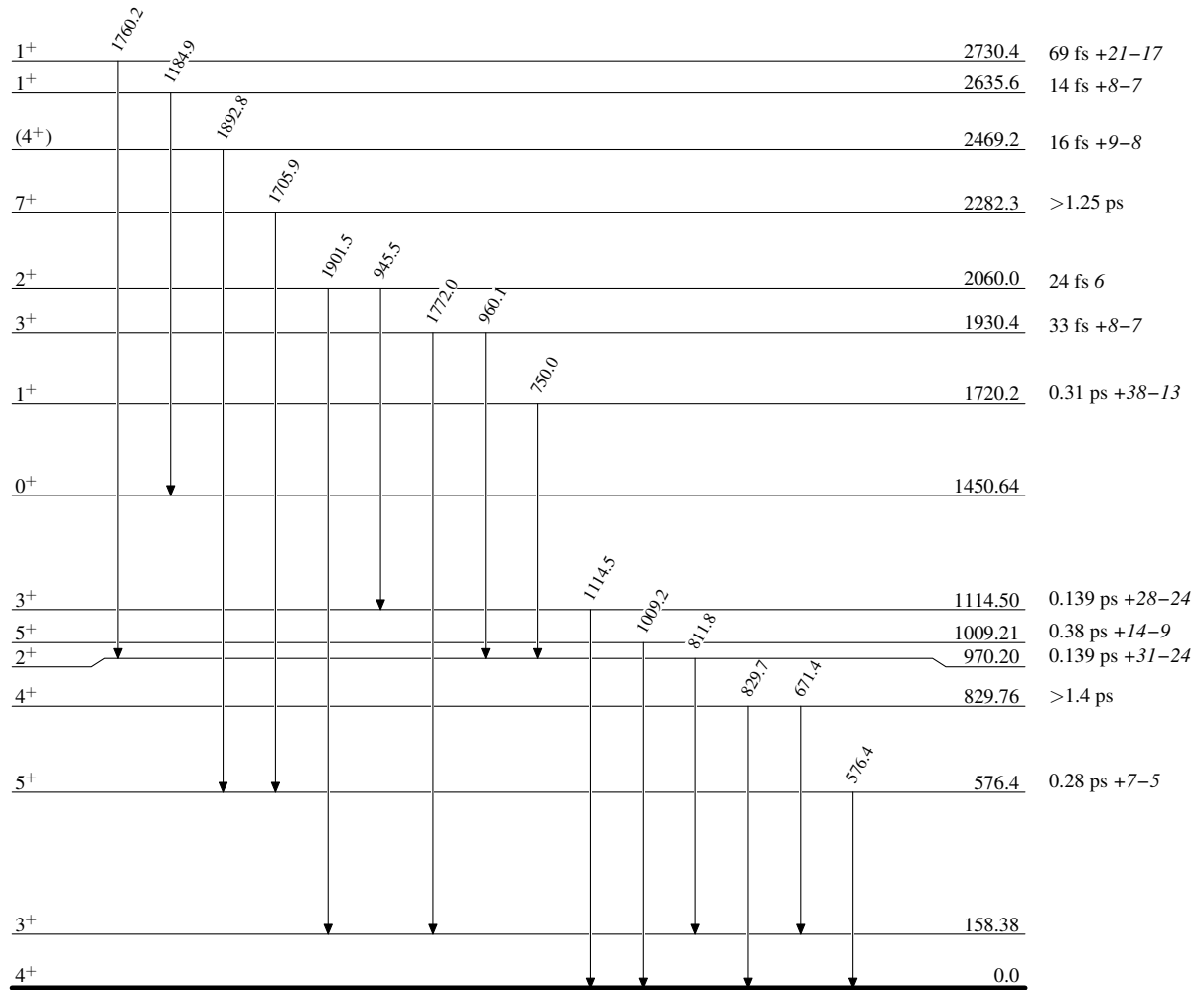
[#] From DSA measurements.

 $\gamma(^{56}\text{Co})$

E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π	E_γ	$E_i(\text{level})$	J_i^π	E_f	J_f^π
576.4 2	576.4	5 ⁺	0.0	4 ⁺	1114.5 2	1114.50	3 ⁺	0.0	4 ⁺
671.4 2	829.76	4 ⁺	158.38	3 ⁺	1184.9 3	2635.6	1 ⁺	1450.64	0 ⁺
750.0 3	1720.2	1 ⁺	970.20	2 ⁺	1705.9 3	2282.3	7 ⁺	576.4	5 ⁺
811.8 2	970.20	2 ⁺	158.38	3 ⁺	1760.2 6	2730.4	1 ⁺	970.20	2 ⁺
829.7 3	829.76	4 ⁺	0.0	4 ⁺	1772.0 4	1930.4	3 ⁺	158.38	3 ⁺
945.5 4	2060.0	2 ⁺	1114.50	3 ⁺	1892.8 4	2469.2	(4 ⁺)	576.4	5 ⁺
960.1 4	1930.4	3 ⁺	970.20	2 ⁺	1901.5 5	2060.0	2 ⁺	158.38	3 ⁺
1009.2 2	1009.21	5 ⁺	0.0	4 ⁺					

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Level Scheme

 $^{56}_{27}\text{Co}_{29}$