^{2}H(^{34}Si,^{35}Pγ) 2007GeZX

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Lijie Sun and Jun Chen	NDS 211,1 (2026)	30-Sep-2025

^{34}Si(d,n)^{35}P from $J^{\pi}=0^{+}$ ^{34}Si g.s. in inverse kinematics.

2007GeZX: 30-AMeV ^{34}Si beam on 30-mg/cm^2 CD_2 secondary target at GANIL. Heavy ions produced in reactions were identified by the VAMOS spectrometer. γ rays were detected using the EXOGAM germanium clover array. Measured Doppler-corrected Eγ, Iγ, $\gamma\gamma$-coin, and (^{35}P)γ-coin. Deduced levels, J, π. Compared with shell-model calculations.

^{35}P Levels

E(level)[†‡]
0
2386.5 *8*
3859.9 *8*
4100.9 *13*
4492.9 *16*
4868.9 *13*

† Additional information 1.
‡ From a least-squares fit to γ-ray energies, assuming $\Delta E\gamma$=1 keV since uncertainties were not given in 2007GeZX.

γ(^{35}P)

E$_\gamma$[†]	E$_i$(level)	E$_f$
241	4100.9	3859.9
392	4492.9	4100.9
1009	4868.9	3859.9
1473[‡]	3859.9	2386.5
2386	2386.5	0
3860	3859.9	0

† From 2007GeZX.
‡ Placement of transition in the level scheme is uncertain.

Legend

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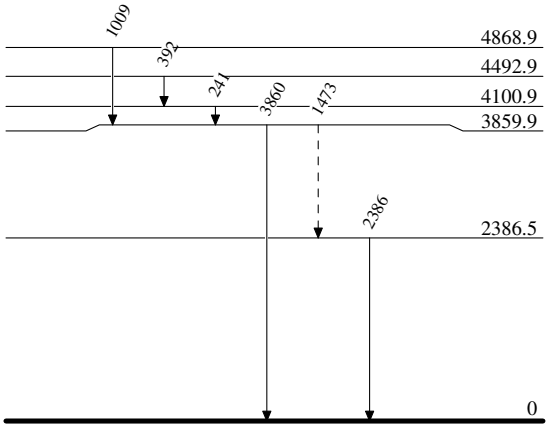
Level Scheme

γ Decay (Uncertain)



$^{35}_{15}P_{20}$