^{9}Be(^{40}P,^{39}Siγ),(^{42}S,^{39}Siγ) 2011So22

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 149, 1 (2018)	1-Jan-2018

2011So22: E=60 MeV/nucleon ^{48}Ca primary beam was produced at the GANIL facility bombarding ≈200 mg/cm^2 ^{12}C and ^{181}Ta targets. Fragments were selected using the SISSI device coupled to the α spectrometer based on energy-loss and time-of-flight information measured using a 50−μm-thick Si and microchannel plate detectors. The nucleus of interest was produced in the 1p, 1p1n, 2p1n and 2p2n knockout reactions from ^{40}P, ^{41}P, ^{42}S, ^{43}S secondary beams bombarding a 185 mg/cm^2 Be target, and selected and identified using the SPEC spectrometer based on energy loss measured by an ionization chamber, time-of-flight and Bρ. γ rays were detected by the 4π "Chateau de Crystal" array of 74 BaF_2 scintillators. Measured Eγ, Iγ. Deduced levels.
Also includes ^{9}Be(^{41}P,Xγ) and ^{9}Be(^{43}S,Xγ). Reaction channels involved knockout of 1p, 1p1n, 2p1n and 2p2n from ^{40}P, ^{41}P, ^{42}S and ^{43}S beams (2011So22).

^{39}Si Levels

E(level)[†]
0
163 *12*
397 *13*
700 *23*
820 *27*
1304 *18*
1714 *30*

[†] From a least-squares fit to γ-ray energies.

γ(^{39}Si)

E$_\gamma$	I$_\gamma$	E$_i$(level)	E$_f$
163 *12*	100 *15*	163	0
303 *19*	14 *6*	700	397
397 *14*	72 *9*	397	0
657 *24*	14 *6*	820	163
906 *17*	40 *9*	1304	397
1143 *27*	19 *8*	1304	163
1551 *27*	19 *8*	1714	163

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Level Scheme

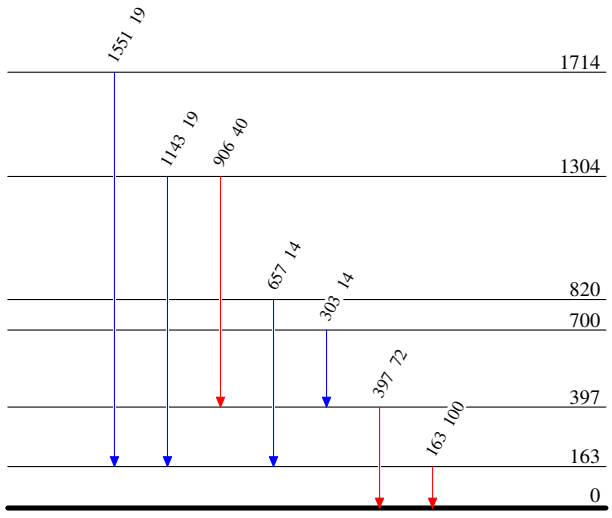
Intensities: Relative I_γ

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$

$I_\gamma < 10\% \times I_\gamma^{max}$

$I_\gamma > 10\% \times I_\gamma^{max}$



$^{39}_{14}Si_{25}$