

$^9\text{Be}(^{36}\text{S},\text{X}\gamma),(^{48}\text{Ca},\text{X}\gamma)$ 2002Az02,2002Sa11

Type	Author	History Citation	Literature Cutoff Date
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Include $^{181}\text{Ta}(^{40}\text{Ar},\text{X}\gamma)$ from 2002Sa11.

2002Az02 (also 2002Gu08,2002Az01,2001Be09,2000Az01,2000Az03,2000Be44): $^9\text{Be}(^{36}\text{S},\text{X}\gamma)$ E=77 MeV/nucleon ^{36}S beam; $^9\text{Be}(^{48}\text{Ca},\text{X}\gamma)$ E=60 MeV/nucleon ^{48}Ca beam at GANIL. Reaction residues were analyzed with the SPEG spectrometer. γ rays were detected with an array of 74 BaF₂ crystals and additional HPGe detectors. Measured E γ , I γ , $\gamma\gamma$ -coin, (fragment)- γ -coin. Deduced levels, J, π . Comparisons with shell-model calculations.

Other:

2002Sa11 (also 2001Yo03): $^{181}\text{Ta}(^{40}\text{Ar},\text{X}\gamma)$ E=94.1 MeV/nucleon ^{40}Ar beam from RIBF at RIKEN. Fragments were separated with RIPS. γ rays were detected with an array of NaI(Tl) scintillators. Measured E γ , fragment- γ -coin, yields.

 ^{32}Mg Levels

E(level) [†]	J π [‡]	Comments
0	0 ⁺	
885 15	2 ⁺	J π : From Adopted Levels.
2315 15	4 ⁺	
2870? 60	(2 ⁺)	This level is not included in the Adopted Levels due to uncertain nature of the 2870 60 transition.

[†] From E γ data.

[‡] Proposed in 2002Az02 based on shell-model predictions.

 $\gamma(^{32}\text{Mg})$

E γ [†]	E _i (level)	J π _i	E _f	J π _f	Comments
885 15	885	2 ⁺	0	0 ⁺	E γ : other: 885 (2002Sa11).
1430 15	2315	4 ⁺	885	2 ⁺	E γ : other:1430 (2002Sa11).
2870 [‡] 60	2870?	(2 ⁺)	0	0 ⁺	E γ : weak γ from 2002Az02, γ not reported by 2004Bb03. A 2869.2 8 γ ray is reported in ^{32}Na β^- decay, but it is not assigned in the decay scheme.

[†] From 2002Az02.

[‡] Placement of transition in the level scheme is uncertain.

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Legend

Level Scheme

-----► γ Decay (Uncertain)

