⁹Be(³⁶Si,³³Mgγ) 2001Yo03

History				
Туре	Author	Citation	Literature Cutoff Date	
Full Evaluation	Jun Chen and Balraj Singh	NDS 199,1 (2025)	30-Sep-2024	

2001Yo03 (also 2002Mo35): E=38 MeV/nucleon ³⁶Si beam was produced from fragmentation of a 95 MeV/nucleon primary ⁴⁰Ar beam from the RIKEN accelerator on a 462.5 mg/cm² ⁹Be production target. Fragments were separated by the RIKEN projectile-fragment separator RIPS. The secondary target was 385 mg/cm² ⁹Be. *γ* rays were detected using an array of 66 NaI(Tl) detectors and reaction products were detected and identified with a PPAC and four sets of ΔE-E counter telescopes each consisting of three layers of ion-implanted silicon detectors followed by a Si(Li) detector. Measured E*γ*, I*γ*, (particle)*γ*-coin.
Three *γ* rays are observed at 490, 900 and 1250 keV. The 490 and 1250 *γ* rays are close in energy to 484.1*γ* and 1242.8*γ* seen in

 33 Na decay. The 900 γ is not seen in 33 Na decay.

³³Mg Levels

 $\frac{\text{E(level)}^{\dagger}}{0}$ 490
1250

[†] From $E\gamma$ data, based on level scheme in the Adopted Levels.

$\gamma(^{33}Mg)$

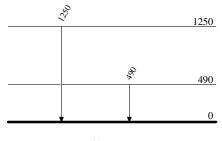
E_{γ}^{\dagger}	E_i (level)	E_f
490	490	0
^x 900		
1250	1250	0

[†] From 2001Yo03. Those transitions are not placed in 2001Yo03 and the placements here are from the Adopted Gammas.

 $x \gamma$ ray not placed in level scheme.

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Level Scheme



 $^{33}_{12}Mg_{21}$