

$^{48}\text{Ca}(^{48}\text{Ca},\text{X}\gamma)$  E=210 MeV 2001Br35

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. W. Burrows	NDS 108, 923 (2007)	20-Feb-2007

Deep inelastic. Measured  $E\gamma$ ,  $I\gamma$ ,  $\gamma\gamma$ -coin; GASP array At the INFN Legnaro Laboratory. 1.2 mg/cm<sup>2</sup>  $^{48}\text{Ca}$  target backed by a thick  $^{208}\text{Pb}$  material.

 $^{47}\text{Ca}$  Levels

E(level) <sup>†</sup>	$J\pi^{\ddagger}$
0	$7/2^-$
2013.7	$3/2^-$
2578.5	$3/2^+$
2599.8	$1/2^+$
3562.5	$(9/2^-)^{\#}$
3934.1	$(11/2^-)^{\textcircled{a}}$
3999.5	$(13/2)^{\#}$
4402.7	$(15/2)^{\textcircled{a}}$
4810.7	$(17/2)^{\textcircled{a}}$

<sup>†</sup> From least-squares fit to  $E\gamma$ 's assuming  $\Delta E(\gamma)=1$  keV (evaluator).

<sup>‡</sup> From the Adopted Levels, except As noted.

<sup>#</sup>  $J(13/2)$  from CRC analysis In  $^{48}\text{Ca}(^3\text{He},\alpha)$ . M2  $\gamma$  from 4000 state tends to confirm  $J^\pi(3562)=(9/2^-)$  from CRC analysis In  $^{48}\text{Ca}(^3\text{He},\alpha)$ .

<sup>@</sup>  $J^\pi(3934)$  from E1  $\gamma$  from 4000.  $J(4403,4811)$  based on  $\gamma$  cascade to 13/2.

 $\gamma(^{47}\text{Ca})$ 

$E_\gamma$	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult.
65.3	3999.5	$(13/2)$	3934.1	$(11/2^-)$	$(E1)^{\dagger}$
403.2	4402.7	$(15/2)$	3999.5	$(13/2)$	
408	4810.7	$(17/2)$	4402.7	$(15/2)$	
437.0	3999.5	$(13/2)$	3562.5	$(9/2^-)$	$(M2)^{\dagger}$
564.8	2578.5	$3/2^+$	2013.7	$3/2^-$	
586.0	2599.8	$1/2^+$	2013.7	$3/2^-$	
2013.7	2013.7	$3/2^-$	0	$7/2^-$	
3562.4	3562.5	$(9/2^-)$	0	$7/2^-$	
3933.8	3934.1	$(11/2^-)$	0	$7/2^-$	
3999.4	3999.5	$(13/2)$	0	$7/2^-$	$(E3)^{\dagger}$

<sup>†</sup> Suggested multipolarity based on observed  $\gamma$  branching.

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## Level Scheme

