

$^{208}\text{Pb}(^{40}\text{Ar},\text{X}\gamma)$  2013Sz02

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	C. D. Nesaraja, E. A. Mccutchan		NDS 133, 1 (2016)	30-Sep-2015

2013Sz02: 1p removal and 2n addition. E( $^{40}\text{Ar}$ )=255 MeV beam provided by the ECR ion source and accelerated by the superconducting ALPI-Linac accelerator at Laboratory Nazionali di Legnaro. Target= $300 \mu\text{g}/\text{cm}^2$   $^{208}\text{Pb}$ . Measured fragments,  $E_\gamma$ ,  $I_\gamma$ , time-of-flight, energy loss,  $\gamma\gamma$ -, (fragment) $\gamma$ -coin using the Clara array and magnetic spectrometer Prisma. Deduced Doppler corrected  $E_\gamma$ , levels, J,  $\pi$ . Comparison with large-scale shell-model calculations.

 $^{41}\text{Cl}$  Levels

E(level) <sup>†</sup>	J $^\pi$
0.0	(1/2 <sup>+</sup> )
129.70 10	(3/2 <sup>+</sup> )
891.44 22	(5/2 <sup>+</sup> )
1445.1 5	(7/2 <sup>+</sup> )
1475.0 3	(5/2 <sup>-</sup> ,7/2 <sup>-</sup> )
2210.3 4	(9/2 <sup>+</sup> )
2451.3 10	(11/2 <sup>+</sup> )
2716.9 6	(9/2 <sup>-</sup> ,11/2 <sup>-</sup> )

<sup>†</sup> From least-squares fit to  $E_\gamma$  data.

 $\gamma(^{41}\text{Cl})$ 

$E_\gamma$	$I_\gamma$ <sup>†</sup>	$E_i$ (level)	J $^\pi_i$	$E_f$	J $^\pi_f$
129.7 1	190 20	129.70	(3/2 <sup>+</sup> )	0.0	(1/2 <sup>+</sup> )
506.3 4	50 10	2716.9	(9/2 <sup>-</sup> ,11/2 <sup>-</sup> )	2210.3	(9/2 <sup>+</sup> )
553.7 4	120 20	1445.1	(7/2 <sup>+</sup> )	891.44	(5/2 <sup>+</sup> )
583.5 2	100 10	1475.0	(5/2 <sup>-</sup> ,7/2 <sup>-</sup> )	891.44	(5/2 <sup>+</sup> )
735.1 3	100 10	2210.3	(9/2 <sup>+</sup> )	1475.0	(5/2 <sup>-</sup> ,7/2 <sup>-</sup> )
761.7 2	270 20	891.44	(5/2 <sup>+</sup> )	129.70	(3/2 <sup>+</sup> )
1006.1 8	100 20	2451.3	(11/2 <sup>+</sup> )	1445.1	(7/2 <sup>+</sup> )
1244 1	60 20	2716.9	(9/2 <sup>-</sup> ,11/2 <sup>-</sup> )	1475.0	(5/2 <sup>-</sup> ,7/2 <sup>-</sup> )
1346 1	240 80	1475.0	(5/2 <sup>-</sup> ,7/2 <sup>-</sup> )	129.70	(3/2 <sup>+</sup> )




<sup>†</sup> Effective number of counts after taking into account detector efficiency.  $I_\gamma$  from 2013Sz02 divided by 10.

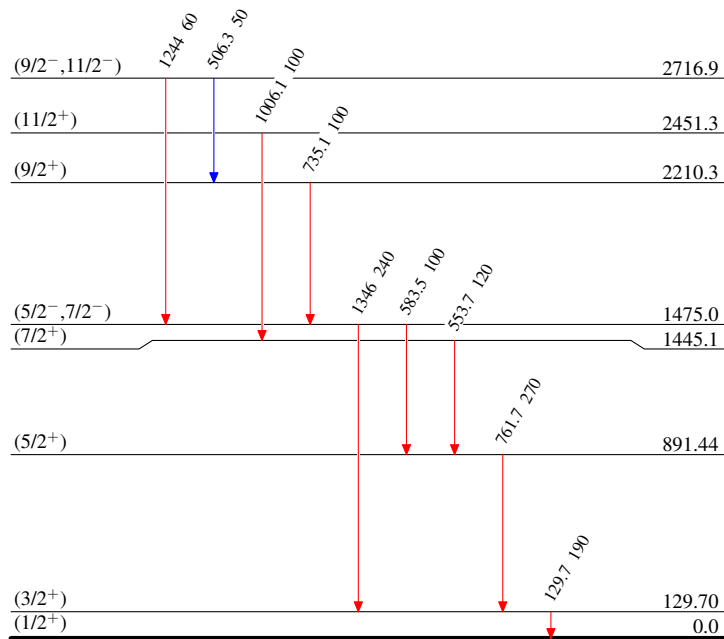
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## Level Scheme

Intensities: Relative  $I_\gamma$ 

## Legend

-   $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
-   $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
-   $I_\gamma > 10\% \times I_\gamma^{\text{max}}$

 ${}^{41}_{17}\text{Cl}_{24}$