^{208}Pb(^{40}Ar,Xγ) 2011Sz02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Jun Chen	NDS 140, 1 (2017)	30-Sep-2015

2011Sz02,2013Sz01: E=255 MeV ^{40}Ar beam was produced from an ECR ion source accelerated by the superconducting ALPI accelerator of the Laboratory Nazionali di Legnaro. Target was 300 μg/cm^2 ^{208}Pb. Projectile-like fragments were identified by spectrometer Prisma by ΔE, E and time of flight measurements. γ rays were detected by the Clara array, consisting of twenty-four HPGe clover-type detectors. Measured Eγ, Iγ, fragment-γ coincidence. Deduced levels, J, π. Comparison with shell model calculations.

^{40}Ar Levels

E(level)†	J$^\pi$†
0.0	0^+
1461	2^+
2121	0^+
2524	2^+
2893	4^+
3208	2^+
3464	6^+
3512	2^+
3681	3^-

† From Adopted Levels. Energies are rounded values.

γ(^{40}Ar)

E$_\gamma$†	E$_i$(level)	J$_i^\pi$	E$_f$	J$_f^\pi$
572‡	3464	6^+	2893	4^+
660	2121	0^+	1461	2^+
1063	2524	2^+	1461	2^+
1432‡	2893	4^+	1461	2^+
1461‡	1461	2^+	0.0	0^+
1747	3208	2^+	1461	2^+
2051	3512	2^+	1461	2^+
2220	3681	3^-	1461	2^+
2524	2524	2^+	0.0	0^+

† Data table for γ rays not given, γ-ray transition energies are based on those shown in figure 2 of 2011Sz02. Rounded values from Adopted Levels, Gammas are given here.

‡ Strongest transition observed, 1461γ being very strong.

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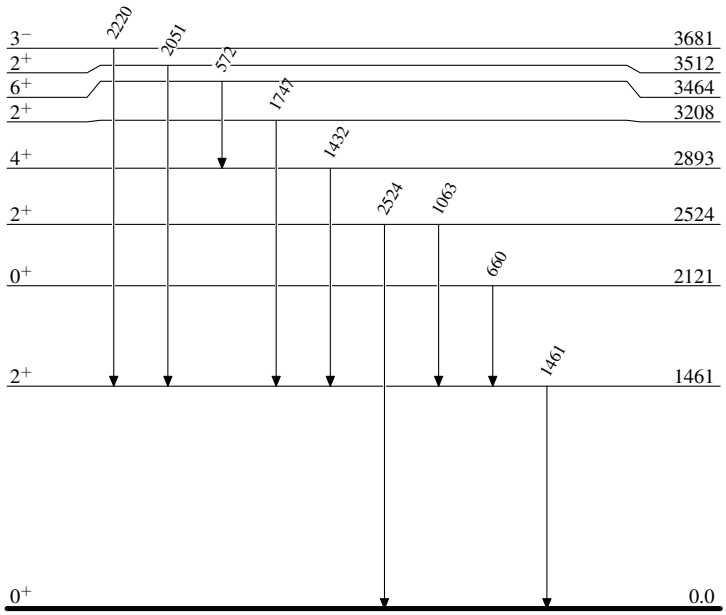
Level Scheme



$^{40}_{18}Ar_{22}$