

$^{32}\text{S}(^{12}\text{C},\alpha)$ 1972Mi08

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

1972Mi08: E=30 MeV ^{12}C beam was produced from the University of Pennsylvania tandem accelerator. Target was 99.6% natural H_2S in a cell. Reaction products were momentum-analyzed with a multi-angle spectrograph. Measured $\sigma(E\alpha)$. Deduced multiparticle-multi-hole states.

 ^{40}Ca Levels

E(level)	J^π [†]	$d\sigma/d\Omega$ ($\mu\text{b/sr}$) [‡]	Comments
0	0 ⁺	≈ 0.31	
3350 25	0 ⁺	3.78	
3700 25	3 ⁻	≈ 0.91	
3910 25	2 ⁺	6.96	
4500 25	5 ⁻	1.04	
5180 25		5.41	
5260 25		6.84	
5610 25		11.0	E(level): doublet: 5614+5629.
5900 25		3.51	E(level): doublet.
6300 25		3.51	
6540 25		12.3	E(level): triplet: 6508+6543+6582.
6910 25		16.0	E(level): triplet: 6909+6931+6938.
7270 25		8.17	E(level): triplet: 7239+7278+7301.
7980 25		40.3	E(level): triplet: 7973+7977+8019.
8110 25		20.7	E(level): triplet: 8091+8113+8135.
8320 25		11.8	E(level): multiplet: 8323+8338+8359+8364.
8590 25		27.3	E(level): doublet: 8579+8587.
8790 25		15.7	E(level): doublet: 8764+8810.

[†] From Adopted Levels for levels up to 5 MeV. Higher groups are mostly unresolved multiplets.

[‡] At $\theta(\text{lab})=7.5^\circ$.