^{76}Ge(p,γ),(p,n) 1978Kl05,1967Co04,1966Ha16

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	30-Sep-2020

Isobaric-analog resonances studied in (p,γ) reaction (1978Kl05), and (p,n) reaction (1967Co04,1966Ha16).
Coulomb energy shift=9943 *16* (1978Kl05). Theoretical value=9900.
E′(level)=E(level) renormalized to 160-keV level.
Parent states and their J^π are taken from ^{77}Ge Adopted Levels.
$\Gamma(\gamma)$ data are from 1966Ha16.

^{77}As Levels

E(level)[†]	J^π	Comments
12070[‡] *7*	$1/2^-$	E(p)(c.m.)=4077 keV *5*, Γ_γ=30 keV *5*; identified as analog of 160 *5*, $1/2^-$ level in ^{77}Ge.
12128[#] *7*	$9/2^+$	E(p)(c.m.)=4135 keV *5*. Level-energy difference=218 keV *5*, relative to the 12070 energy normalized to 160 keV *5* (level in ^{77}Ge); identified as analog of 225, $9/2^+$ level in ^{77}Ge.
12426[‡] *5*	$5/2^+$	E(p)(c.m.)=4433 keV *3*, Γ_γ=26 keV *5*. Level-energy difference=516 keV *3*, relative to the 12070 energy normalized to 160 keV (level in ^{77}Ge); identified as analog of 510, $5/2^+$ level in ^{77}Ge.
12544[‡] *5*	$3/2^-$	E(p)(c.m.)=4551 keV *3*, Γ_γ=27 keV *5*. Level-energy difference=634 keV *3*, relative to the 12070 energy normalized to 160 keV (level in ^{77}Ge); identified as analog of 629, $3/2^-$ level in ^{77}Ge.
12804[‡] *5*	$5/2^+$	E(p)(c.m.)=4811 keV *3*, Γ_γ=26 keV *5*. Level-energy difference=894 keV *3*, relative to the 12070 energy normalized to 160 keV (level in ^{77}Ge); identified as analog of 884, $5/2^+$ level in ^{77}Ge.
12924[#] *5*		E(level): 12972 in 1978Kl05 is probably a misprint. E(p)(c.m.)=4931 keV *3*, Γ_γ=42 keV *5*. Level-energy difference=1014 keV *3*, relative to the 12070 energy normalized to 160 keV (level in ^{77}Ge); identified as analog of 1006 or 1021 level in ^{77}Ge.
13094[@] *14*		E(p)(c.m.)=5101 keV *12*, Γ_γ=80 keV *7*. Level-energy difference=1184 keV *12*, relative to the 12070 energy normalized to 160 keV (level in ^{77}Ge); identified as analog of 1189 level in ^{77}Ge.
13243[@] *9*		E(p)(c.m.)=5250 keV *7*, Γ_γ=56 keV *5*. Level-energy difference=1333 keV *7*, relative to the 12070 energy normalized to 160 keV (level in ^{77}Ge); identified as analog of 1359 or 1386 level in ^{77}Ge.
13439[&] *12*	$1/2^+$	E(p)(c.m.)=5446 keV *10*. Level-energy difference=1529 keV *10*, relative to the 12070 energy normalized to 160 keV (level in ^{77}Ge); identified as analog of 1536, $1/2^+$ level in ^{77}Ge.
13697[&] *12*		E(p)(c.m.)=5704 keV *10*, Γ_γ=72 keV *5*. Level-energy difference=1787 keV *10*, relative to the 12070 energy normalized to 160 keV (level in ^{77}Ge); identified as analog of 1777 or 1804 level in ^{77}Ge.

[†] Deduced from weighted average of proton energies in c.m. system (1978Kl05,1967Co04,1966Ha16).
[‡] Reported by 1978Kl05, 1967Co04 and 1966Ha16.
[#] Reported by 1978Kl05 only.
[@] Reported by 1967Co04 and 1966Ha16.
[&] Reported by 1966Ha16 only.