^{208}Pb(^{26}Ne,^{25}Neγ) 2008Gi09

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia, Anagha Chakraborty	NDS 205,1 (2025)	31-May-2025

Adapted/Edited the XUNDL dataset compiled by S. Geraedts and B. Singh (McMaster); Nov 24, 2008.

Coulomb excitation of ^{26}Ne was performed on ^{208}Pb and ^{27}Al targets using a 58 MeV/nucleon beam produced at the RIKEN accelerator facility. The secondary ^{26}Ne beam was produced in the reaction ^{9}Be(^{40}Ar,X) with a beam energy of 95 MeV/nucleon. Charged particles were detected with single-sided silicon strip detectors. Measured Eγ using 4π DALI2 array of 152 NaI(Tl) detectors. Detected neutrons using a hodoscope consisting of 29 sets of plastic rods and scintillators. States in ^{25}Ne were populated from neutron decay of a pygmy state at ≈9 MeV. These were identified by observing known γ decays from levels in ^{25}Ne, not listed in 2008Gi09. Secondary articles: 2005GiZX, 2005GiZW.

Other: 2007Be66: ^{208}Pb(^{24}Ne,X), E=7.9 MeV/nucleon; measured Eγ, (particle)γ-coincidence. Measurements were carried out at GANIL, France. Reported Doppler corrected Eγ of 1680 (doublet), 2030, 2350, 3300 and proposed the placements from 5/2$^+$ to 1/2$^+$ g.s., 3/2$^+$ to 1/2$^+$, 7/2$^+$ to 3/2$^+$, and 3/2$^-$ to g.s., respectively. Secondary articles: 2008BeZX, 2006BeZP. No level of spin parity 7/2$^+$ is proposed in 2008Gi09 (the evaluators assume that the study reported in 2008Gi09 supersedes that in 2007Be66).

^{25}Ne Levels

E(level)	J$^\pi$[†]	Comments
0	1/2$^+$	%n=5 *+17−5* from 9 MeV state in ^{26}Ne and ^{208}Pb target.
1700	5/2$^+$	%n=66 *15* for 1700+2000 level from 9 MeV state in ^{26}Ne, and ^{208}Pb target.
2000	3/2$^+$	%n=66 *15* for 1700+2000 level from 9 MeV state in ^{26}Ne, and ^{208}Pb target.
3300	3/2$^-$	%n=35 *9* for 3300 level from 9 MeV state in ^{26}Ne, and ^{208}Pb target.

[†] As listed in 2008Gi09.