

## $^8\text{He}$ SPECTROSCOPY IN STOPPED PION ABSORPTION REACTION

Tuesday, 12 July 2022 13:10 (20 minutes)

Level structure of heavy helium isotope  $^8\text{He}$  is studied in the reactions of stopped pion absorption  $^9\text{Be}(\pi^-, p)X$ ,  $^{10}\text{B}(\pi^-, pp)X$ ,  $^{11}\text{B}(\pi^-, pd)X$ ,  $^{12}\text{C}(\pi^-, p^3\text{He})X$ ,  $^{14}\text{C}(\pi^-, d^4\text{He})X$ ,  $^{14}\text{C}(\pi^-, t^3\text{He})X$ . The experiment was carried out at the LANL with a two-arm semiconductor spectrometer. The ground and excited states have been observed. The assumption that the excited state  $E_x \approx 3$  MeV is a soft dipole mode is made. The states  $E_x \approx 9.3$  MeV, 11.5 MeV, 12.2 MeV have been observed for the first time. Parameters of excited states have been compared with data of other experimental and theoretical works.

### The speaker is a student or young scientist

No

### Section

1. Nuclear structure: theory and experiment

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**Session Classification:** Nuclear structure: theory and experiment