^{39}Na

The discovery of ^{39}Na was discussed in "Discovery of ^{39}Na" by Ahn et al. in 2022 (2022Ah02). The RIBF accelerator complex at the RIKEN Nishina Center was used to deliver a 345 MeV/nucleon ^{48}Ca beam to a 20-mm thick beryllium target. Projectile fragments were separated with the large acceptance two-stage separator BigRIPS and identified by their time of flight, magnetic rigidity, and energy loss measurements. "We observed nine events for ^{39}Na and thus established that it is particle-bound." A single ^{39}Na event had been previously reported but it was not deemed sufficient evidence for its discovery (2019Ah07).

Adapted from reference (2023Th03)

2019Ah07 D. S. Ahn, N. Fukuda, H. Geissel, N. Inabe *et al.*, Phys. Rev. Lett. **123**, 212501 (2019).

2022Ah02 D. S. Ahn, J. Amano, H. Baba, N. Fukuda *et al.*, Phys. Rev. Lett. **129**, 212502 (2022).

2023Th03 M. Thoennessen, Int. J. Mod. Phys. E **32**, 2330001 (2023).

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