^{46}Si

The neutron-rich isotope ^{46}Si was reported for the first time in 2024 by Yoshimoto et al. in "Discovery of Neutron-Rich Silicon Isotopes ^{45,46}Si" (2024Yo09). A ^{70}Zn beam was accelerated to 345 MeV/nucleon by the accelerator complex of the RI Beam Factory (RIBF) and bombarded a 10 mm thick Be target. Projectile fragments were separated with the large-acceptance two-stage separator BigRIPS and identified with the TOF$-\Delta E - B\rho$ method. "The A/q and Z values of a single ^{46}Si candidate was evaluated to determine whether it was a misidentification of ^{43}Al,... we conclude that six ^{45}Si particles and one ^{46}Si particle were observed in this experiment." In 2021, Suzuki et al. reported the observation of ^{46}Si in an annual report (2021SuZZ).

2021SuZZ H. Suzuki, M. Yoshimoto, N. Fukuda, H. Takeda *et al.*, REPT-RIKEN **54**, p. 2 (2021).

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