^{31}Ne

^{31}Ne was discovered by Sakurai et al. in 1996 as reported in "Production and identification of new neutron-rich nuclei, ^{31}Ne and ^{37}Mg, in the reaction 80A MeV ^{50}Ti + ^{181}Ta" (1996Sa34). A ^{50}Ti beam was accelerated at the RIKEN Ring Cyclotron to 80 MeV/nucleon and fragmented on a tantalum target. The fragments were analyzed by the RIPS spectrometer and identified on the basis of energy loss, total kinetic energy, time-of-flight and magnetic rigidity. "All of the fragments of ^{30,31,32}Ne, ^{32,33,34,35}Na, and ^{35,36,37}Mg were stopped at the SSD4 with the selected window of the magnetic rigidity. Significant numbers of events have been observed for new isotopes, ^{31}Ne (23 events) and ^{37}Mg (three events)." ^{31}Ne had previously been reported incorrectly as particle unstable (1990Gu02).

Adapted from reference (2012Th01)

1990Gu02 D. Guillemaud-Mueller, J. C. Jacmart, E. Kashy, A. Latimier *et al.*, Phys. Rev. C **41**, 937 (1990).

1996Sa34 H. Sakurai, N. Aoi, A. Goto, M. Hirai *et al.*, Phys. Rev. C **54**, R2802 (1996).

2012Th01 M. Thoennessen, At. Data Nucl. Data Tables **98**, 43 (2012).

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