^{69}Zn

Heyn reported the observation of ^{69}Zn at the Röntgenlaboratorium der N.V. Philips' Gloeilampenfabrieken in Eindhoven, The Netherlands, in "The Radioactivity of Nickel, Copper and Zinc" in 1937 (1937He05). Zinc was irradiated by fast and slow neutrons and β-rays were magnetically analyzed following chemical separation. "In zinc bombarded with slow neutrons we observed an activity with a period of 60 minutes. As the charge of the particles emitted proved to be negative, and as the activity is very strong and cannot be obtained by fast neutrons or gamma-rays, the carrier of this activity is most probably Zn^{69}." Heyn had previously assigned this activity incorrectly to ^{65}Zn (1936He03). A 1.0(3) h half-life was measured a year earlier without a definite mass assignment (1936Li02). ^{69}Zn had also been incorrectly observed to be stable (1921De01, 1928As01).

Adapted from reference (2012Gr02)

1921De01 A. J. Dempster, Science **54**, 516 (1921).
1928As01 F. W. Aston, Nature **122**, 345 (1928).
1936He03 F. A. Heyn, Nature **138**, 723 (1936).
1936Li02 J. J. Livingood, Phys. Rev. **50**, 425 (1936).
1937He05 F. A. Heyn, Physica **4**, 1224 (1937).
2012Gr02 J. L. Gross, J. Claes, J. Kathawa, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 75 (2012).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"