

⁷³Br

The first observation of ⁷³Br was reported in 1970 by Murray et al. in “The decay of ⁷³Br” (1970Mu02). The Manchester Hilac accelerated a 64 MeV ¹⁶O beam which bombarded a cobalt target to form ⁷³Br in the fusion-evaporation reaction ⁵⁹Co(¹⁶O,2n). Gamma-ray spectra were measured with a Ge(Li) following chemical separation. “There was no evidence for any initial build-up in the γ -ray yields and this, together with the fact that chemical separation took place 2 min after the end of the irradiation, can only be interpreted on the basis that the 3.3 ± 0.3 min activity is associated with the decay of a bromine isotope... The initial build-up in the decay curves is consistent with a 3 ± 1 min activity feeding the ⁷³Se 40 min level. We thus assign the 3.3 ± 0.3 min activity to ⁷³Br.” A 4 min. activity had previously been observed, however, no mass assignment was possible (1953Ho53, 1960Bu22).

Adapted from reference (2012Gr02)

- 1953Ho53 J. M. Hollander, Phys. Rev. **92**, 518 (1953).
1960Bu22 F. D. S. Butement and G. G. J. Boswell, J. Inorg. Nucl. Chem. **16**, 10 (1960).
1970Mu02 G. Murray, W. J. K. White, J. C. Willmott, and R. F. Entwistle, Nucl. Phys. A **142**, 21 (1970).
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”