

## $^{104}\text{Nb}$

In “Low-Energy Transitions from the Deexcitation of Spontaneous Fission Fragments of  $^{252}\text{Cf}$ ,” Hopkins et al. reported the first observations of  $^{104}\text{Nb}$  in 1971 at the Center for Nuclear Studies at the University of Texas at Austin ([1971Ho29](#)). The spontaneous fission of  $^{252}\text{Cf}$  was measured by recording X- and  $\gamma$ -rays with a Si(Li) and a high-resolution Ge(Li) low-energy photon detector. The observed isotopes were not discussed individually in the text and the results were summarized in a table. A gamma-line of 140.9 keV at mass  $104\pm 0$  was assigned to  $^{104}\text{Nb}$ . This  $\gamma$ -ray had already been reported in an earlier paper ([1970Jo20](#)), however, without unique mass assignment.

Adapted from reference ([2012Ny02](#))

- [1970Jo20](#) W. John, F. W. Guy, and J. J. Wesolowski, Phys. Rev. C **2**, 1451 (1970).  
[1971Ho29](#) F. F. Hopkins, G. W. Phillips, J. R. White, C. F. Moore, and P. Richard, Phys. Rev. C **4**, 1927 (1971).  
[2012Ny02](#) A. Nystrom and M. Thoennessen, At. Data Nucl. Data Tables **98**, 95 (2012).

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