

^{234}Bk

^{234}Bk was discovered by Kaji et al. in 2016 as reported in the paper “Decay Properties of New Isotopes ^{234}Bk and ^{230}Am , and Even-Even Nuclides ^{234}Cm and ^{230}Pu ” (2016Ka13). A 189.5 MeV ^{40}Ar beam accelerated by the RIKEN heavy-ion linear accelerator RILAC bombarded a gold target to form ^{234}Bk in the reaction $^{197}\text{Au}(^{40}\text{Ar},3n)$. Reaction products were separated with the gas-filled ion separator GARIS and transported to the rotating wheel system MANON where correlated α -particles and fission fragments were measured. “Alpha-decay energies of eleven ^{234}Bk were found at 7.62–7.96 MeV, and six fission events that correlated with the α -decay of ^{234}Bk were observed. The half-lives of ^{234}Bk and ^{230}Am were determined to be 19_{-4}^{+6} s and 3_{-9}^{+22} s, respectively.”

2016Ka13 D. Kaji, K. Morimoto, H. Haba, E. Ideguchi *et al.*, J. Phys. Soc. Jap. **85**, 015002 (2016).

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