# $^{172}$Lu

In "Radioactive isotopes of lutetium and hafnium" Wilkinson and Hicks described the identification of $^{172}$Lu in 1951 (1951Wi08). Targets of rare earth elements were irradiated with various light particles produced with the Berkeley 60-in. cyclotron and the linear accelerator. $^{172}$Lu was primarily produced by bombarding thulium targets with 15−38 MeV $\alpha$ particles. Decay curves, absorption curves, and electron spectra were measured following chemical separation. "6.70±0.05 day Lu$^{172}$ — The hafnium activity of about five years half-life allocated to mass 172 has been found to have a lutetium daughter, the decay of which has been followed through over ten half-lives. The radiation characteristics agree well with those obtained for the activity produced in low energy alpha-particle bombardments of thulium, and it is fairly certain that the activities are due to the same isotope."

Adapted from reference (2012Gr19)


1951Wi08 G. Wilkinson and H. G. Hicks, Phys. Rev. **81**, 540 (1951).

2012Gr19 J. L. Gross and M. Thoennessen, At. Data Nucl. Data Tables **98**, 983 (2012).



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