# $^{129}$I

The identification of $^{129}$I was reported by Katcoff in the 1951 publication "Half-life of $I^{129}$ and the age of the elements" (1951Ka16). $^{129}$I was produced by irradiating a uranium slug in the Oak Ridge pile for four years. Activities were measured with proportional counters following chemical separation and the half-life was deduced from measuring the $^{129}$I to $^{127}$I ratio in a 60° sector type mass spectrometer. Nine radioactive methyl iodide samples were measured. "The average of the nine values for the half-life of $I^{129}$ is $1.72\times10^7$ years with an over-all estimated probable error of 5 percent." The existence of $^{129}$I had been known for awhile but no properties had been measured (1951LeZZ). An estimated half-life of $10^8$ y was reported four years earlier (1947Ka02) and in 1949 a $3(1)\times10^7$ y half-life was measured and described in an internal report (1949Pa19).

Adapted from reference (2013Ka01)


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