

^{215}Po

A new α activity in the actinium decay chain (^{215}Po) was identified in 1911 by Geiger at the University of Manchester as reported in “The transformation of the actinium emanation” (1911Ge01). Scintillations were counted using a zinc sulfide screen fixed to a microscope. The range of the α particles was measured by changing the distance in air. Also, a box was constructed that allowed to calculate the half-life from the number of scintillations as a function of an applied electric field. “It has been shown that the actinium emanation is complex, consisting of two products each of which emits α rays. The first one - the emanation - with a period of 4 seconds emits α rays of a range of 5.7 cm. The second product emits α rays of range 6.5 cm., and has a period of the order of 1/500 of a second.” This α -emitter was later named AcA (1911Ru02) corresponding to ^{215}Po . Earlier Geiger and Marsden had established an upper half-life limit of 0.1 s for this activity (1910Ge02).

Adapted from reference (2013Fr04)

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- 1911Ru02 E. Rutherford and H. Geiger, Phil. Mag. **22**, 621 (1911).
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