

²⁰⁵Tl

Schüler and Jones from the Astrophysikalisches Observatorium of the Laboratorium des Einstein Institutes in Berlin Potsdam, reported first evidence of ²⁰⁵Tl in the 1931 paper “Über einen Isotopeneffekt der Hyperfeinstruktur an Tl” (1931Sc04). Spectroscopic studies of the hyperfine structure revealed the presence of ²⁰³Tl and ²⁰⁵Tl. “Da das Atomgewicht des Tl 204,39 ist und da bisher in keinem Fall im periodischen System die Elemente mit ungeradzahligem Kernladungszahlen mehr als zwei um zwei Einheiten verschiedene Isotopen aufweisen, so scheint die Annahme von den Tl-Isotopen 203 und 205 durchaus plausibel.” [The atomic weight of Tl is 204.39 and up to now no cases have been observed where elements with uneven atomic number have isotopes which differ by more than two mass units. Thus, it is plausible to assume that Tl has two isotopes – 203 and 205.] Aston submitted his mass spectroscopic results later in the year (1931As05).

The assignment was changed (2016Th03) from the original compilation (2013Fr04) which credited the later Aston paper (1931As05) with the discovery of ²⁰⁵Tl.

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