

Updates and Errata to “The History and Science of the Manhattan Project”

(Last update January 21, 2018)

Index and footnotes available at www.manhattanphysics.com

Errata

- p. 41: Equation (2.20) is incorrect following the decay of Rn. The correct equation is ${}_{90}^{228}\text{Th} \xrightarrow[1.9 \text{ yr}]{\alpha} {}_{88}^{224}\text{Ra} \xrightarrow[3.63 \text{ days}]{\alpha} {}_{86}^{220}\text{Rn} \xrightarrow[55.6 \text{ sec}]{\alpha} {}_{84}^{216}\text{Po} \xrightarrow[0.15 \text{ sec}]{\alpha} {}_{82}^{212}\text{Pb} \rightarrow \dots$
- p. 53: Third-last line: “ ... is the point at which the neutron makes its debut.”
- p. 64: About the middle of the page, a decimal place is in error: $\log(\text{area}) = -3.91$ should read $\log(\text{area}) = -0.391$
- p. 76: Rutherfordium should not be capitalized
- p. 84: In Equation (3.10), the 3.9-hour beta-decay between lanthanum and cerium is misprinted: ${}_{56}^{141}\text{Ba} \xrightarrow[18.3 \text{ min}]{\beta^-} {}_{57}^{141}\text{La} \xrightarrow[3.9 \text{ hr}]{\beta^-} {}_{58}^{141}\text{Ce} \xrightarrow[32.5 \text{ days}]{\beta^-} {}_{59}^{141}\text{Pr}$
- p. 102: *Harpers* should have an apostrophe: *Harper's*. Also in citation to O'Neill p. 116
- p. 106: Last line: “Thompson” should be “Thomson”
- p. 117: Third reference to R. L. Sime: “Nuclear” misspelt as “Nuclera”
- p. 124: Third line should read: “ ... next day, and they assembled ...”
- p. 137: Line 6 of the paragraph in the middle of the page should read “ ... chain reaction cannot be sustained ...”
- p. 141: Fifth line: “can be” is repeated.
- p. 164: “Sommervell” should have only one “m”: “Somervell” (2 occurrences)

- p. 173: The reference to Cohen, Runcorn, Suess, and Thode was scrambled in printing. It should read as: Cohen, K. P., Runcorn, S. K. Suess, H. E., Thode, H. G.: Harold Clayton Urey, 29 April 1893 – 5 January 1981. Biographical Memoirs of Fellows of the Royal Society **29**, 622-659 (1983)
- p. 202: Bob Sadlowe, a retired Oak Ridge engineer, has informed me that the Y-12 product shipped to Los Alamos was uranium tetrafluoride (“green salt”), not hexafluoride. The am grateful to Mr. Sadlowe for pointing out this error.
- p. 248: Fourth-last line of full paragraph should read “ ... suffers a 6.6 hour beta ...”
- p. 261: The ‘hamburger stand’ comment regarding Oppenheimer is mis-attributed. In his autobiography, Alvarez attributes this to an unnamed friend of Oppenheimer: “He couldn’t run a hamburger stand.” See L. W. Alvarez, *Adventures of a Physicist*. Basic Books, New York (1987) p. 78
- p. 270: 6th line: “ranch school” should have leading caps: “Ranch School”
- p. 362, 387: In the caption to Fig. 8.1 on page 362, the name of *Enola Gay*’s tail gunner is given as Robert Caron, whereas it appears as George Caron in Table 8.2 (p. 387). Caron’s full name is George Robert Caron.
- p. 428: In the top line of Table 9.1, “rance” should be “France”
- p. 461: In the Index under entry for Lawrence, Ernest O., the subentry “informs Arthur Compton of fissility of element, 94”, delete comma before 94