

ERRATA

July 2015

E. E. Lewis, *Fundamentals of Nuclear Reactor Physics*, Academic Press, 2008

- p. 3 Eq.(1.3): Change ${}^1_2\text{He}$ to ${}^4_2\text{He}$.
- p. 45 first line after Eq. (2.43) change Eq. (2.41) to (2.42)
- p. 51 Eq. (2.58): Change $\ln(E_3/E_3)$ to $\ln(E_2/E_3)$.
- p. 69, first line: Replace $E + E/\alpha^f$ with E/α^f and $E + E/\alpha^m$ with E/α^m .
- p. 87, third line: delete "a"
- p. 90, third paragraph: Change 1510 bar to 150 bar and 690 bar to 68 bar.
- p. 95, Eq. (4.3): Change v_f in numerator and denominator to V_f .
- P. 97, fourth line from the bottom: Change "though" to "through"
- p. 101, Table 4.2: Last row should read: 1.42, 1.43, 1.15, 1.47
- p. 104, fourth line from bottom: Change "were" to "where".
- p. 107, Eq. (4.51); The V_f in the numerator of the last line should not be crossed out.
- p. 124, Eq. (5.37): In the last term change Γ to $\Gamma\Sigma_a$.
- p 137, Problem 5.15: Change 5 s to 50 s.
- p 137-138: Change problems 5.15, 5.16, 5.17 and 5.18 to 5.15*, 5.16*, 5.17*, and 5.18*
- p. 193, Fig. 7.10: Change (\tilde{H}/L) to (\tilde{H}/M)
- p. 230, in Eq. (9.35) change subscript e to c; first eq. in following line should begin with $\bar{T}_f(P)$ (subscript was incorrect); last sentence of 3rd paragraph: Change "in dependent" to "independent"; equation at end of paragraph should be $D_p = \alpha_p P$
- p. 241: Problem 9,11: Change 100 MW to 5,000 MW. Change 1,000 MW to 10,000 MW.

Additional

p. 11, first paragraph, change “striped” to “stripped”

p. 23, Figure 1.9, Curves have wrong shapes. To be discussed in class.

p. 24, Problem 1.1(f), change 137 to 237

p. 25, Problem 1.10, change “plutonium-239” to “neptunium-239”

p. 38, Figure 2.2, the magnitude of the curve for $\chi(E)$ is not correct (or the secondary vertical axis is missing). The peak of $\chi(E)$ is approximately 0.358.

p. 47, second paragraph, “uranium” is misspelled.

p. 47, Figure 2.9, link no longer works.

p. 48, Figure 2.10, link no longer works.

There are several websites that provide plots of nuclear data. One source is:

<https://t2.lanl.gov/nis/data/endl/endlvii.1-n.html>

p. 142, second to last paragraph, change “average scattering angle” to “average cosine of the scattering angle”