

**Errata:** *Nuclear Energy*, Seventh Edition, Elsevier, 2015  
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- Page 11, line 1, typo: " $\frac{1}{2}mv_0^2$ " should be " $\frac{1}{2}m_0v^2$ " like in Exercise 1.7.
- Page 28, line 5, typo: "1789.8" should be "1786.8" like the other values in Example 2.7.
- Page 56, in Equation (4.30), the 'x' should be changed to 'z'.
- Page 57, first equation in Example 4.4: the units on the microscopic cross section should simply be " $\text{cm}^2$ " (no minus sign).
- Page 69, Exercise 4.23(c), change  $\frac{1}{1}n$  to  $\frac{1}{0}n$ .
- Page 82, just below Eq. (5.13): the half-thickness relation should be " $\ln(2)/\mu$ ".
- Page 95, the units on the y-axis of Figure 6.5 should be  $\text{MeV}^{-1}$ .
- Page 103, last full line before Example 7.2: change  $\sigma_{DD}$  to  $\sigma_{DT}$ .
- Page 143, 9<sup>th</sup> line from the bottom: change "0.1 mrem/y" to "0.1 rem/y".
- Page 162, in Example 11.7: the mass attenuation coefficient ( $\mu/\rho$ ) would have been better as 0.07102  $\text{cm}^2/\text{g}$  per Tables 11.2 and A.6 (rather than 0.0684  $\text{cm}^2/\text{g}$  which is from NUREG/CR-5740).  
Using  $\rho = 11.35 \text{ g/cm}^3$ , this would change several subsequent values in the example, including  $\mu = 0.806 \text{ cm}^{-1}$ ,  $\phi_u = 9.30 \text{ cm}^{-2}\cdot\text{s}^{-1}$ , and  $\phi = 28.3 \text{ cm}^{-2}\cdot\text{s}^{-1}$ .
- Page 170, in Example 11.10, move "(= 4500 d)" after "12.3-y".
- Page 179, in Example 12.1: the 85.1% gamma value has two digits transposed in computing  $S$  specifically, 0.815 should be 0.851  $\gamma/\text{decay}$ , resulting in  $S = 3.15 \times 10^4 \gamma/\text{s}$ , which means that  $\phi = 5.6 \times 10^{-4} \gamma/(\text{cm}^2\cdot\text{s})$  and  $R = 0.0057 \text{ counts/s}$  (no change to  $\epsilon_g$ ).
- Page 186, first line of Example 12.6: change "Figure 12.6(A)" to "Figure 12.6(B)".
- Page 195, Exercise 12.16: change "Figure 12.6(A)" to "Figure 12.6(B)".
- Page 200, first line of second paragraph, change "P-13" to "P-32".
- Page 233, bottom line: change "Ni-58, 26; Ni-59, 1; Ni-60, 10" to "Ni-58, 26 b; Ni-60, 1 b; Ni-62, 10 b".
- Page 251, line after equation in Example 15.5: delete the first comma, that is, it should read " $F = 6.57 P = 6.57 \text{ kg/day}$ ".
- Page 253, first line, insert a ')' after "Section 18.3".
- Page 254, line 5, change "6.1 volts" to "6.1 eV".
- Page 261, Example 16.1, last line, change "-0.05" to "-0.053".
- Page 279, change "Thus, the fuel surface temperature difference is" to "Thus, the film temperature difference at the fuel cladding surface is"
- Page 306, second line of third full paragraph, change 'combustion' to 'condensation'.
- Page 311, last line in Example 18.8: delete comma between '3' and 'D', it should read " $H=3D=9.6 \text{ m}$ ".
- Page 336, Equation (20.10), the signs on " $\lambda C$ " in both expressions are opposite of what they should be, and the denominators of the first terms on the right hand side of the equation should be the prompt neutron lifetime rather than the effective neutron lifetime, that is, Eq. (20.10) should be
- $$\frac{dn}{dt} = n(\rho - \beta)/\ell + \lambda C$$
- $$\frac{dC}{dt} = n\beta/\ell - \lambda C$$
- Page 342, in the denominator of the third term of the first equation, the superscript on  $R$  should be  $R$  rather than  $X$ .
- Page 345, in Eq. (20.20): there should be a " $1/n$ " before the summation to compute the average.
- Page 385, in Eq. (22.2): the left side should be " $m/m_0$ ".
- Page 385, in the line after Eq. (22.2), change "vehicle plus payload" to "exhausted fuel".
- Page 387, just above Eq. (22.4): the specific power should be 0.557 W/g (rather than 0.57 W/g).
- Page 392, in Exercise 22.1(a): the specific power should be 0.557 W/g (rather than 0.57 W/g).
- Page 405, line 10: change "absorption on porous media" to "adsorption on porous media".
- Page 406, line before Example 23.7: change "as discussed in the next chapter" to "as discussed in Section 25.6".
- Page 448, 7th line from the bottom: change "but one worker died" to "but two workers died".
- Page 461, line before Eq. (25.3): change "fission rate in U-235" to "absorption rate in U-235".
- Page 465, first line of second full paragraph, change "fertile" to "fissile".

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Page 468, line 3: change "Two neutron absorptions in U-233 yield" to "The  $^{232}\text{Th}(n,2n)$  reaction yields".

Page 473, Exercise 25.4, add units of b (barns) to the fission and capture cross section values.

Page 482, last line: change "neutral ions" to "neutralized ions".

Page 483, last line of second paragraph, change "80 m/s" to "800 m/s".

Page 509, line 4: change "200 tonnes" to "2000 tonnes".

Page 529, the solutions to Exercises 22.7 and 22.8(a) should be 0.055 and 92,800 Ci, respectively; and the solution to Exercise 21.12 should be 311 GJ.