

ERRATA

PRINCIPLES OF RADIATION SHIELDING

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Location	As Is	Change to
p. 4, line -9 (from bottom)	Illinois; OECD	Illinois; and OECD
p. 4, line -8	France;...Italy	France.
p. 11, Eq. (2.8)	$\dots dE d\Omega$	$\dots d\Omega dE$
p. 31, Prob. 2.13		add the sentence: "It is sufficient to leave the answer in integral form [see Hubbell's article in <i>J. Nat. Bur. Stds.</i> , 64C, 121 (1960).]"
p 47, page header	Sec. 5.8	Sec. 3.5
p. 47, Table 3.1, entry for C at 0.1 MeV	0.0064	0.00064
p. 59, line after Eq. (3.69)	v'	v'_c
p. 63, Eq. (3.85)	$\epsilon = \overline{E - E'}$	$\overline{E - E'}$
p. 63, Eq. (3.85)	ϵ_{inel}	$\overline{E - E'}$
p. 63, line 2 after Eq. (3.85)	ϵ_{elas}	$\overline{E - E'}$
p. 65, 2nd para, line 4	A3.11	A3.9
p. 76, formula in Prob. 3.15	$-(\omega_s + A^2 - 1)^2$	$[\omega_s + (\omega_s^2 + A^2 - 1)^{1/2}]^2$
p 76, Prob. 3.16, line 1	an isotropic	anisotropic
p 76, Prob. 3.16, line 2	ϵ_{elas}	$\overline{E - E'}$
p 80, Table 4.2		(see attached corrected table)
p. 88, Eq. (4.11)		The factor $(A + 4)^2$ is the divisor for all to the left.
p. 126, line 2	may	might
p. 127, line above Eq. (5.13)	Problem 3.9	Problem 3.16
p. 127, Eq. (5.13)	$[1 - \frac{A}{2}\Delta - f_1(1 + \Delta)^{1/2}]$	$[1 + \frac{A}{2} - f_1(1 + \Delta)^{1/2}] - Q $
p. 140, Table 5.6, Col. 2,entry 10	1.10(-8)	2.1(-8)
p. 141, Ref. 7	Hubbel	Hubbell
p. 173, Eq. (6.91)	S_V	$S_V l$

Location	As Is	Change to
p. 220, line 6	5.5	5.6
p. 240, Eq. (8.35)	$S_p/4\pi r^2$	$(r-t)^2/r^2$
p. 242, Eq. (8.40)		x variable at right is in the exponent
p. 242, Eq. (8.42)	(x_f)	(x_j)
p. 244, line -3 (from bottom)	slowing	slow
p. 244, Eq. (8.51)	$,0 \ll x \ll T.$.
p. 250, footnote		There are experimental cases in which neutrons are strongly captured before becoming thermalized, such as in the core of a fast reactor or for a thick slab of low-moderating, hig-absorbing material.
p. 275, line 15	the terms	of the terms
p. 277, top line	Eq. (9.28)	Eq. (9.27)
pp. 277, 278, Figs. 9.5a-c	$\phi =$	$\psi =$
p. 297, 2nd line below Eq. (9.61)	$(a \text{ by } a)$	$(2a \text{ by } 2a)$
p. 291, line after Eq. (9.46)	Problem 9.1	Problem 9.7
p. 308, Prob. 9.9, line 2	Fig. 9.13	Fig. 9.12
p. 317, bottom figure	ψ	ζ
p. 319, Eq. (10.13)	$\mu_s(\mathbf{r}, E' \rightarrow E, \Omega' \rightarrow \Omega)$	$\mu_s(\mathbf{r}, \lambda' \rightarrow \lambda, \Omega' \rightarrow \Omega)$
p. 321, Eq. (10.24)	$-A^2 \Delta_{ij}$	$-A_i^2 \Delta_{ij}$
p. 322, 2nd para, line 9	Fortunately	Fortunately
p. 331, Eq. (10.63)	$\exp[\int_0^s \dots]$	$\exp[-\int_0^s \dots]$
p. 338, Eq. (10.100)	$(d\omega)$	$d\omega$
p. 339, line after Eq. (10.106)	$\phi_{-1,n}$	$\phi_{-1,l}$
p. 344, footnote 3	by the integrand	by the product of the interval width and the integrand
p. 345, Fig. 10.6	Cell 0, Cell 1	Cell 1, Cell 2
p. 346, line 3 after Eq. (10.122)	$0, \dots, k-1$	$0, \dots, K-1$
p. 357, Eq. (10.160)	$(\lambda_i + 2)(2r^2)$	$(\lambda_i + 2)/(2r^2)$
p. 371, line -7 (from bottom)	iron one	iron ore
p. 394, Fig. 11.13	v	ν
p. 396, Fig. 11.15	v	ν

Location	As Is	Change to
p. 397, Fig. 11.16	ν	ν
p. 415, entry for $E_2(0.01)$	0.00954	0.00959
p. 418, Eq. (A2.24)	$(n - 1)!$	$(n - i)!$
p. 420, line 6		insert “= 0” to complete statement of equation
p. 440, Table A3.11, 7th isotope	^{41}A	^{41}Ar
p. 443, Ref. 7,	R.S. Casell and J.J. Coyne	R.S. Casell, J.J. Coyne and M.L. Raudolph
p. 472, Group 5, Alpha, line 8	8.113(-03)	6.113(-03)
p. 476, Figure legend	(MeV/s)	MeV

p. 80, Table 4.2 has several errors. The corrected table is shown below with changes underlined.

Nuclide	ν Neutrons Per Fission	Neutrons Per (g s)	Half-Life		α Per Fission
			(spontaneous fission)	Half-Life (total)	
^{236}Pu	2.2	3.5×10^4	3.5×10^9 y	2.85 y	1.2×10^9
^{238}U	2.3	<u>1.6×10^{-2}</u>	8.19×10^{15} y	4.47×10^9 y	1.8×10^6
^{238}Pu	2.28	<u>2.6×10^3</u>	4.77×10^{10} y	87.7 y	5.4×10^8
^{240}Pu	2.23	<u>9.1×10^2</u>	1.34×10^{11} y	6570 y	2.0×10^7
^{242}Pu	2.28	<u>1.8×10^3</u>	6.75×10^{10} y	3.76×10^5 y	<u>1.8×10^5</u>
^{242}Cm	2.59	<u>2.3×10^7</u>	6.09×10^6 y	162.8 d	1.4×10^7
^{244}Cm	2.82	1.1×10^7	1.35×10^7 y	18.1 y	7.5×10^5
^{252}Cf	<u>3.80</u>	<u>2.3×10^{12}</u>	<u>85.4</u> y	2.64 y	<u>32.3</u>
^{254}Cf	3.90	<u>1.2×10^{15}</u>	60.5 d	60.5 d	3×10^{-3}
^{254}Fm	4.0	<u>3.3×10^{14}</u>	228 d	3.24 h	1.7×10^3