Errata Nuclear Reactor Physics 2nd ed 11/26/2013

Chapter 2

p34 in the neutron utilization section, replace “fissile” with “fuel” in two places.

p41 Fig. 2.4, replace y-axis label with “ *En*u (*E*), *eV* / *cm2* *s* ” and remove “Flux º *n*u

from title.

Chapter 3

p44 in Eq. (3.2), remove “s” subscript from S .

p50 in the first of Eqs. (3.26), the exponent is “”.

p53 in Eq. 3.41 the numerator of last term on LHS should be .

p59 in Eq. 3.73 the last two forms on RHS should be multiplied by .

p61 in Optimum Geometries section, replace “radius a” with “diameter d” and replace

the power “2” with the power “3” on (π/2).

p62 in the third line the term should be “”.

p64 in the line following Eq. (3.84), it should be “  ”.

p66 in first line the RHS should be “ ”.

p69 in sentence just above Effective Homogeneous…. the volumes should be and .

p70 in the numerator of the 3rd definition of F for spherical geometry it should be

“”.

p85 in Eq. 3.142 insert a + before the bracket ( ) on LHS.

p87 Eq. (3.148), the first integral is over “(dx’)” not (dx).

p87 Eq. (3.150), insert a “1/2” before the integral.

p88 Eq. (3.154), in 2nd line replace with “” under the sum; in the 3rd and 5th lines

insert a “1/2” before the integrals.

p89 Eq. (3.162), insert “ “ after the [..] at the end.

p90 in first line replace “ ( = cosq ) ” with “( is the cosine of the angle made by the

line R with respect to the normal to the y-z plane in Fig. 3.9)”.

p91 Eq. (3.172) in the first line should be “” instead of .

p93 Eq. (3.179) in the first line should be “” instead of 

p93 in line just above Eq. (3.184) should be “(3.176)”.

p94 Eq. (3.186) right side should be “”.

p94 Eq. (3.188) insert the symbol “ ” before the summation sign.

p99 in problem 3.12 in 6th line .

Chapter 4

p101 line above Eq. (4.1) should be dE”.

p101 Eq. (101) the cross-section in last integral should be “ ”

p102 in Eq. 4.2 lowercase .

p104 in 2nd line below Eq. (4.9) replace 4% with “0.4%”.

p122 Note that the symbol that appears in the expression for the resonance escape probability in Eq. (4.60) is the average logarithmic energy loss of Eq. (1.24), not the resonance parameter of Eq. (4.58).

p130 in Eq. 4.85 the last part is .

p137 Eq. (4.105) in denominator replace with .

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Chapter 5

p147 Eq. (5.5) the cross section in first term on right should be “”.

p151 in the 2nd of Eqs 5.27 there should be a minus sign before 0.0113..

p171 3rd line above Eq. (5.100), remove “n ” from Eq. for *P*.

p175 Fig. 5.4 title, replace “” with“”

p177 in 6th line after Eq. 5.116, it should be .

p192 Problem 5.4, replace “ ” with “ ”

p194 in prob 5.21 4th line it should be .

Chapter 6

p199 Eqs. (6.1) 3rd from bottom of page, the cross-section should be “”

p205 in 4th line after Eq 6.6 replace “act” with “effect”.

p216 in Eq. 6.20 there should be a “t” in the final exponent -t.

p237 in the first and 2nd lines “LMR” and “LWR” should be exchanged.

p245 Problem 6.1, replace “absorption” with “fission” in 4th line.

p245 Problem 6.2 , should be 

p246 Problem 6.5 replace “” in last line with “ ”.

Chapter 9

p320 Eq. (9.58), insert “” after the [..] at the end.

Chapter 10

p396 Fig. 10.3, replace y-axis label with “*En*u( *E)* , *eV* / *cm2 s* ” .

Chapter 11

(Note that the symbol that appears in Eqs. (11.22)-(11.25)for the resonance escape probability is the average logarithmic energy loss of Eq. (1.24), not the resonance parameter of Eq. (11.16).)

Chapter 12

p 466 Eq. 12.58 there should be a paren around term in denominator 

Chapter 16

p603 Eq 16.21a, there should be a “” before first term on right.