

## Errors in 7<sup>th</sup> edition

Page 6, line 8 from bottom: The number of frequency cycles should be 9,192,631,770 (not 9,192,631.770).

Page 6, line 7 from bottom: the symbol for cesium should be  $^{133}\text{Cs}$  (not  $^{133}\text{Ce}$ ).

Page 17: In Eq. (1.44), the exponent on the dimension of time,  $\bar{t}$ , should be  $-1$ . (It is correct in Table 1.3.)

p. 79, line 8 from bottom:

A newtonian liquid (not “A Newtonian fluid”)

p. 79, line 4 from bottom:

file in the liquid. The moving plate lifts the liquid from a container at 1 atm and discharges it at the same pressure.

p. 80, line 3:

There is no pressure change, so  $dp/dx$ ,  $dp/dy$  and  $dp/dz$  are all zero. Integrating Eq. (4.41) gives

$$\frac{dv}{dx} - \frac{x\rho g}{\mu} = C_1 \quad (4.42)$$

Integrating again yields

$$v - \frac{x^2\rho g}{2\mu} = C_1x + C_2 \quad (4.43)$$

The boundary conditions are as follows: at  $x = 0$ ,  $v = 0$  and at  $x = B$ ,  $v = v_0$ .

Solving for the constants shows that  $C_1 = v_0/B - [B/2\mu](\rho g)$  and

$C_2 = 0$ . Substituting in Eq. (4.43) gives

$$v = - \frac{\rho g}{2\mu} (Bx - x^2) + v_0 \frac{x}{B} \quad (4.44)$$

Page 160, lines 7 to line 4 from bottom, should read: “turbulent, the critical Reynolds number is sensitive to the intensity of turbulence, and becomes smaller as the intensity increases. For example, if the intensity, defined as  $100\sqrt{(u')^2}/u$ , is 2 percent, the critical Reynolds number<sup>11</sup> is about 140,000. One method of measuring the intensity of turbulence is to determine the crit- [“intensity” not “scale” throughout; also the definition was not correct.]

Page 355, line 4 from bottom, should read, "the coefficients are about 15 percent greater than..." (not "20 percent")

Page 537, bottom line: The correct value of the Boltzmann constant is  $10^{-23}$ . (not  $10^{23}$ )

Page 551: The coefficient in Eq. (17.64) should be 1.76. (not 1.62)

Page 1045: The coefficient in Eq. (29.54) should be 1.76. (not 1.62)

Page 857, Equation (25.23):

The first term on the left should read:

$$\varepsilon \rho c_p \frac{\partial T_g}{\partial t} \quad \text{not } \varepsilon c_p \frac{\partial T_g}{\partial t} .$$