

3rd Edition: First Printing (5 March 2005). Corrigenda

Page 36, Example 1.9 and p. 108, Question 1.16: “ -3.725×10^{-3} ” in the expression for λ should be “ -5.88×10^{-3} ” (p. 36, 1st and 4th equations, and p. 108). All calculations are correct.

Page 249, lines 4 and 5 from bottom: Delete negative signs and change “largest” to “smallest”. Corrected version:

$$E_{BL} = \left(\frac{e}{2m_e} \right) LB \cos \theta = \left(\frac{e}{2m_e} \right) L_z B = \left(\frac{e\hbar}{2m_e} \right) m_\ell B$$

which depends on m_ℓ , and it is minimum for the smallest m_ℓ . Since $m_\ell = -\ell, \dots$,

Page 250, top: Delete negative sign in equation, change $-1/2$ to $+1/2$ and $+1/2$ to $-1/2$ and interchange “down” and “up”. Corrected version:

$$E_{SL} = \left(\frac{e\hbar}{m_e} \right) m_s B$$

which depends on m_s . Since $m_s = \pm \frac{1}{2}$, E_{SL} has only two values, positive ($m_s = +\frac{1}{2}$) and negative ($m_s = -\frac{1}{2}$), which add and subtract from the electron’s energy depending on whether the spin is up or down. Thus, in an external magnetic field, the elec-

Page 277. Eq. 3.60. Delete negative sign in front of $h\nu$ and change h^3 to h^2 in denominator. **Page 280.** Delete negative sign in second equation from top. **Page 281.** Change 2 to 4 in denominator of second equation from top. **Page 580.** Question 6.21 *b*. “500” should be “400”. **Page 581.** Question 6.27, last sentence. Add into parenthesis. “Also assume $\eta = 1$ and I_o is proportional to n_i^2 .” **Page 681.** Question 7.27, line 2. “nC” should be “C”.