

**Errata** (*Engineering Materials in Mechanical Design – Principles of Selection with Q&A by Sujeet K. Sinha*)

1. Page 19 – Equation (2.10) should be read as,

$$r^2 = \left[ \frac{4FL^3}{3E\pi\delta} \right]^{1/2}$$

2. Page 24 – The x-axis legends in Figure 2.7 should be read as, Log  $\rho$ .

3. Page 42 – Equation (3.5) and one before should be read as,

$$\begin{aligned} m &= \pi(4FL/\pi\sigma)^{2/3} L\rho \\ &= \pi(4FL/\pi)^{2/3} L (\rho/\sigma_y^{2/3}) \end{aligned}$$

4. Page 55 – The sentence just below Equation (4.7) should be read as,

“Thus, we can convert Eq. (4.6) into the following ....”

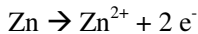
5. Page 66 – The third paragraph from top should be read as,

“For a spherical pressure vessel (Fig. 5.5), the ....”

6. Page 94 – The equation for effective modulus,  $E^*$ , is given as,

$$1/E^* = \{(1-\nu_1^2)/E_1\} + \{(1-\nu_2^2)/E_2\}$$

7. Page 107 – The anodic reaction involving Zn should be read as,



8. Page 108 – Equation (8.9) should be read as,

$$k = \frac{\text{Atomic mass of the anodic metal (g mole}^{-1}\text{)}}{\text{Number of electrons transferred per atom} \times F \text{ (A.sec. mole}^{-1}\text{)}} \quad (8.9)$$

where F is Faraday’s constant ( $\sim 96,500$  Coulombs  $\text{mole}^{-1}$  or A.sec. $\text{mole}^{-1}$ ).

9. Page 142 – The first sentence of the figure legend of Fig. 10.2 should be read as,

“A scaffold for tissue engineering made of polycaprolactone (PCL).”

10. Page 149 – two lines above Section 11.2.1, should be read as,

“.. higher strength in some ....”

11. Page 168, first line, Equation (11.7) should be read as,

$$d\sigma_T/d\varepsilon_T = \sigma_T$$

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**12.** Page 185, Figure 11.27, the lowest curve has “P = atoms pheric” which should be read as “P = atmospheric”

**13.** Page 264, Problem 5, the first sentence should be read as, “A steel component gives a fatigue life of  $10^4$  numbers of cycles under an alternating stress range of 175 MPa with a minimum stress value of zero.”

**14.** Page 264, Table P.1, third column, units of ‘Density’ should be read as  $\text{Mgm}^{-3}$ .