

Figure 2.1 Extension of a spring under the application of a force. Hooke's law and the spring constant.

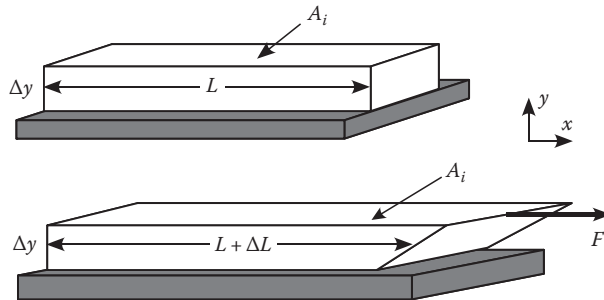


Figure 2.2 Deformation of a solid object. Hooke's law and the modulus of elasticity.

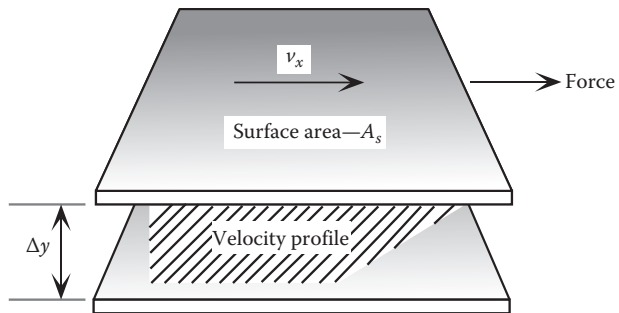


Figure 2.3 Fluid flow in response to an applied shear stress.

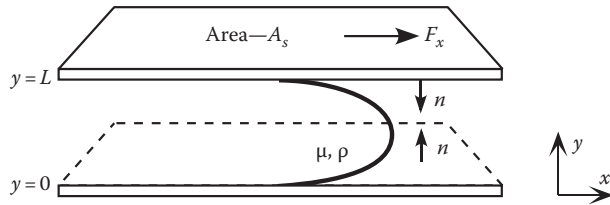


Figure 2.4 Fluid flowing in between two flat plates.

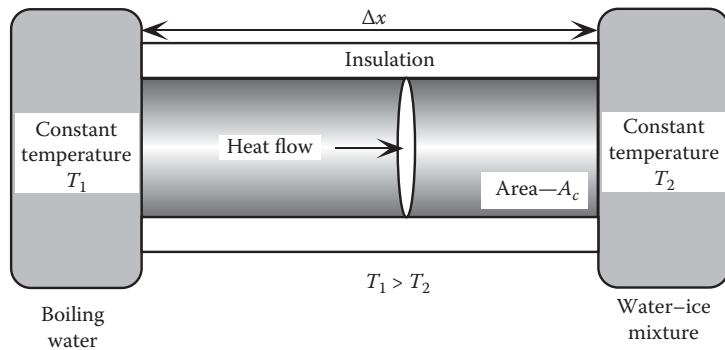


Figure 2.5 Heat flow caused by a temperature gradient.

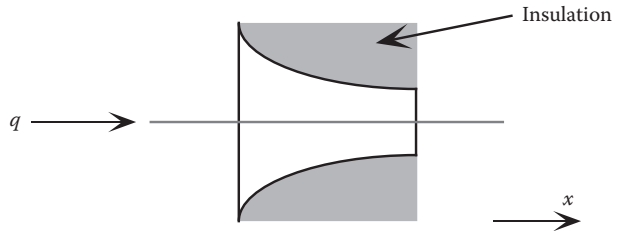


Figure 2.6 System cutaway view.

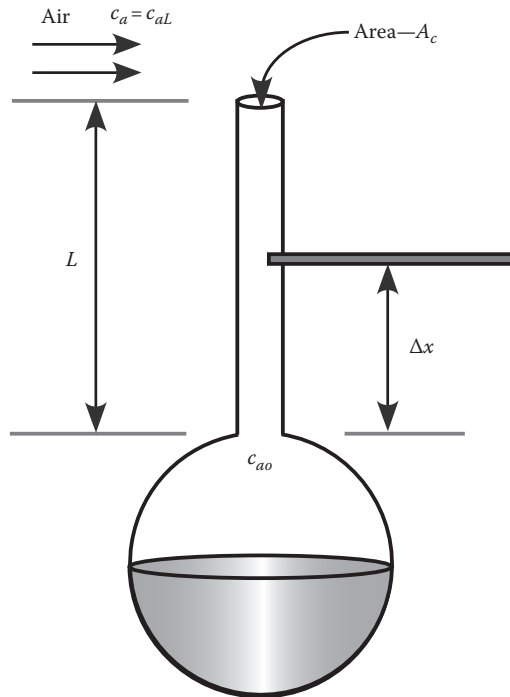


Figure 2.7 Diffusion resulting from a concentration gradient.

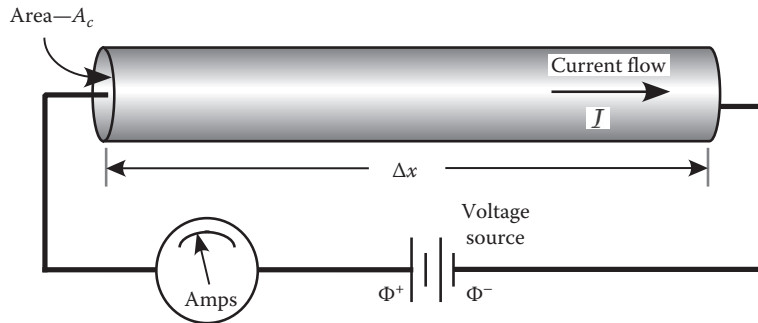


Figure 2.8 Current flow under an applied electric potential.

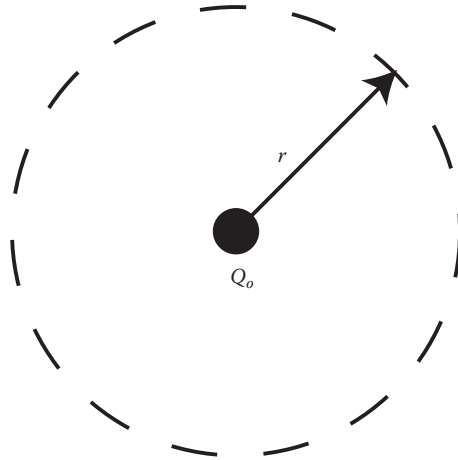


Figure 2.9 Point source of heat surrounded by a hypothetical sphere of radius, r .

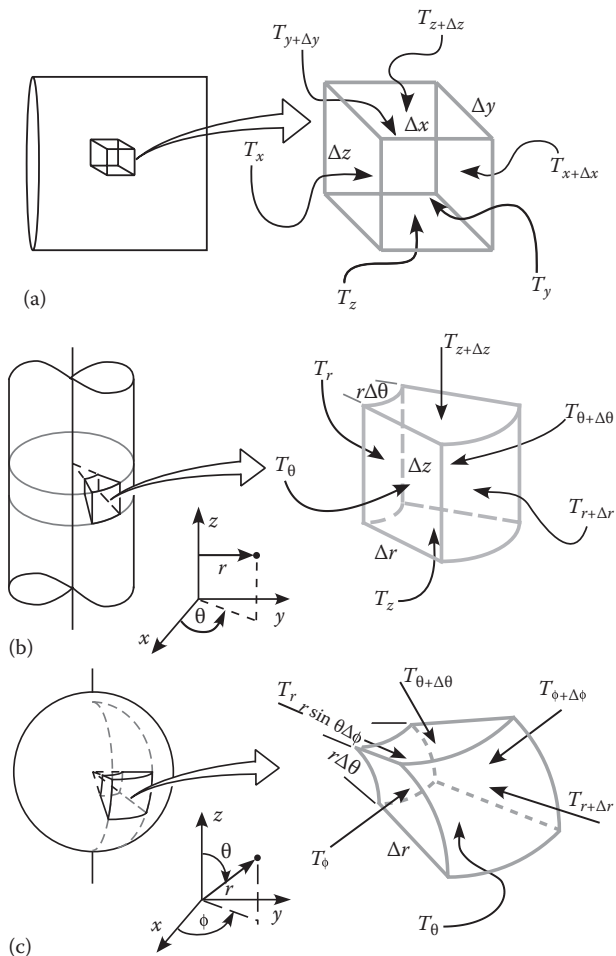


figure 2.10 (a) Cartesian coordinate system, (b) cylindrical coordinate system, and (c) spherical coordinate system.

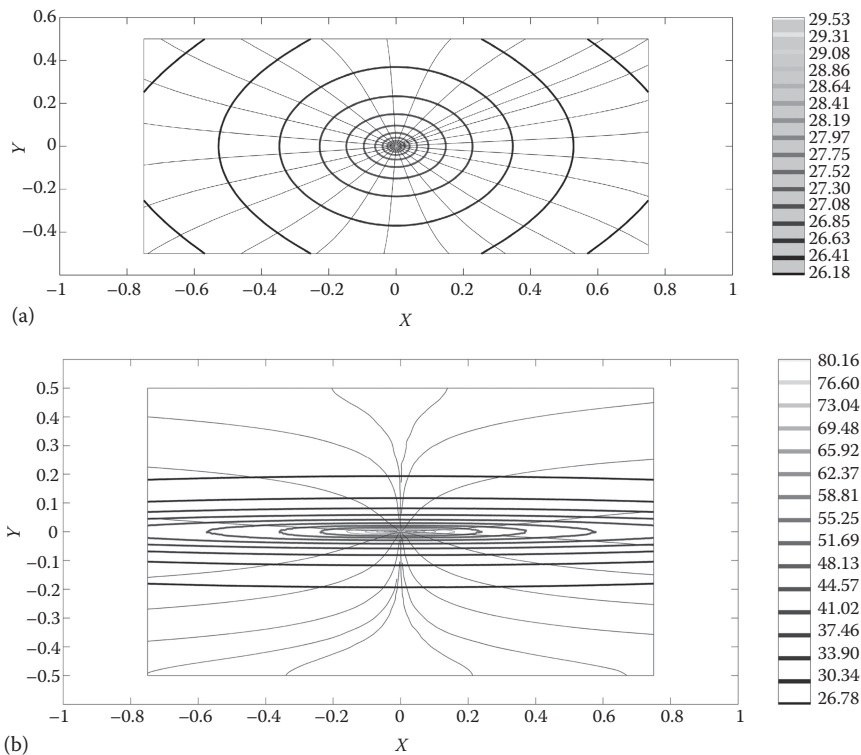


Figure 2.11 Isotherm flux plots for an (a) isotropic material (amorphous carbon) and an (b) anisotropic material (graphite). Notice the angle between flux and isotherm. Scale is temperature in $^{\circ}\text{C}$.

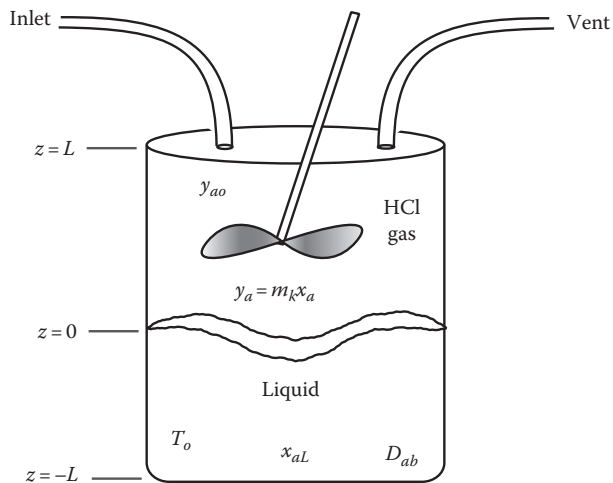


Figure 2.12 Heat and mass transfer resulting from a heat of solution process.

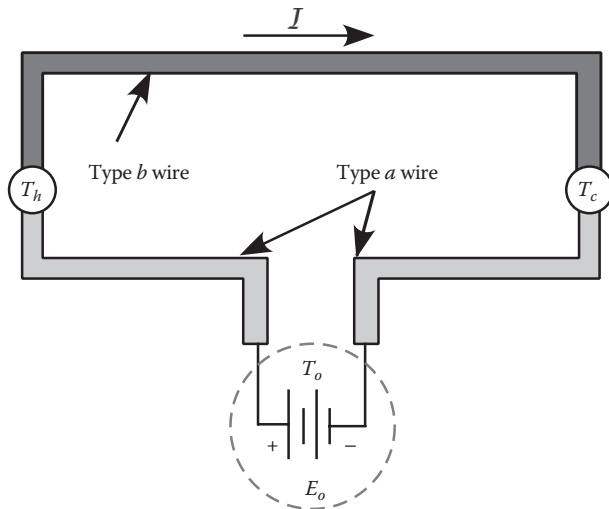


Figure 2.13 A simple thermoelectric circuit consisting of two materials, a and b . The junctions at T_h , T_c , and T_o are isothermal.

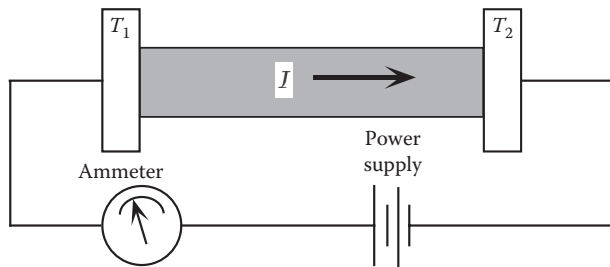


Figure 2.14 Thermoelectric effects occurring in a nonisothermal conductor.

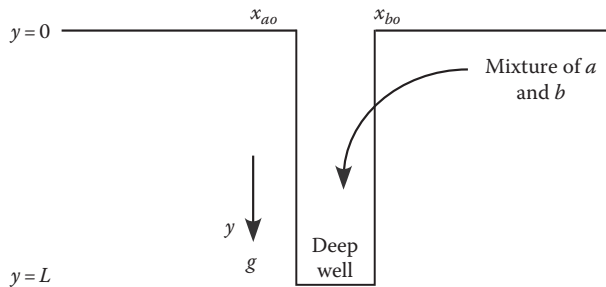


Figure 2.15 Pressure diffusion of a through b in a deep well.

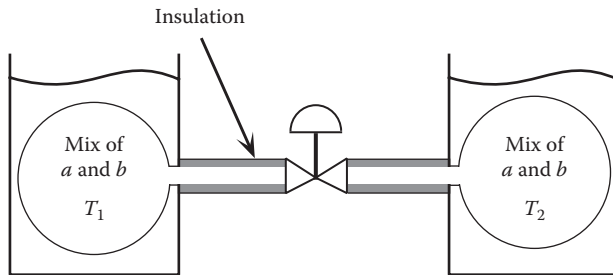


Figure 2.16 Thermal diffusion of a mixture of a and b from one container to another.

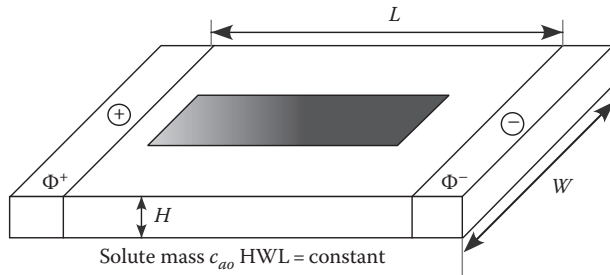


Figure 2.17 Electrophoretic separation of a protein.

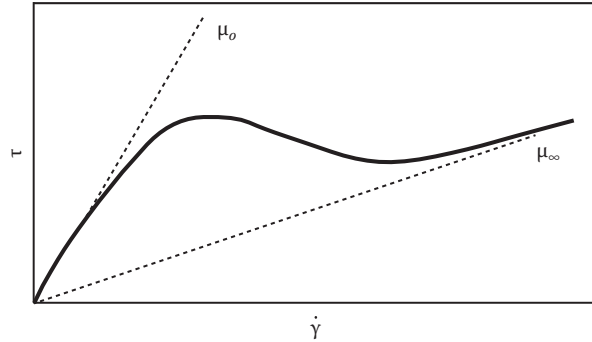


Figure 2.18 Pseudoplastic viscous behavior.

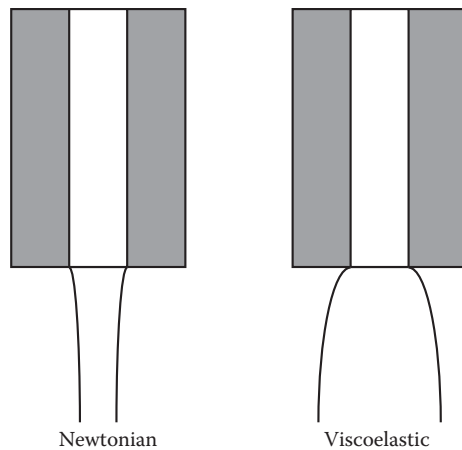


Figure 2.19 Newtonian versus viscoelastic flow behavior.

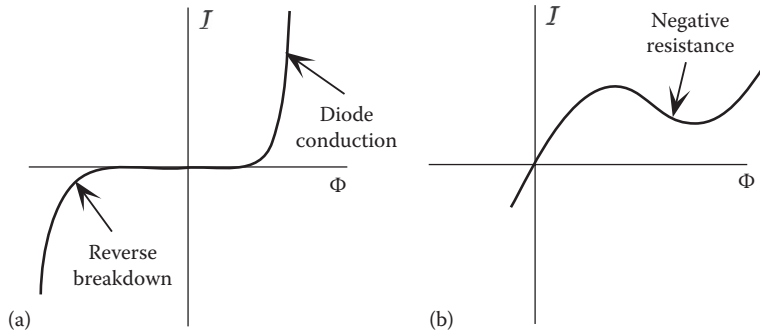


figure 2.20 Circuit elements that do not obey Ohm's law: (a) Zener diode and (b) tunnel diode.

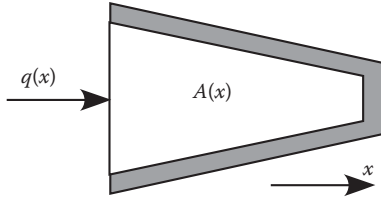


Figure P2.11

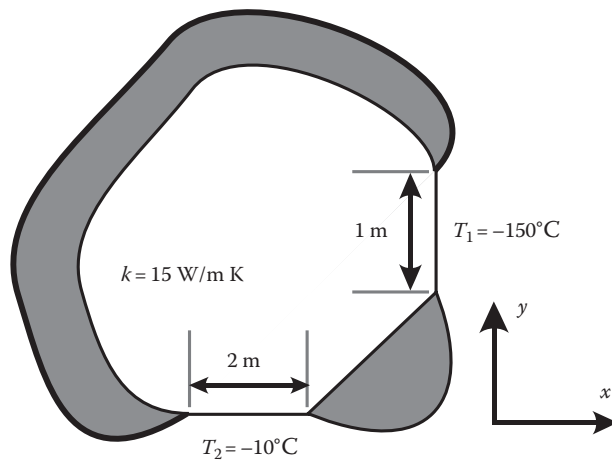


Figure P2.12

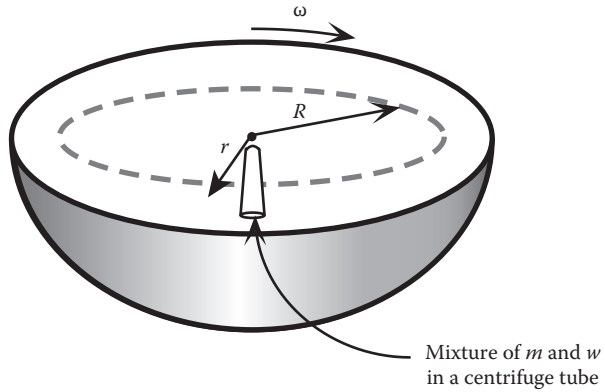


Figure P2.19