



FIGURE 4.9. Solution mining techniques include: (a) bottom injection systems used to dissolve soluble materials such as salt; (b) the Frasch system in which superheated water is pumped down to melt sulfur; the molten sulfur is carried upward in the innermost pipe; (c) *in situ* ore leaching in which a solvent (commonly an acid) is drained downward through a previously broken ore zone; and (d) heap leaching in which broken rock is placed on an impermeable pad on the ground, and a solvent is sprayed over the rock; this is the method used today for most gold recovery.