Schematic representations of the microstructures for an iron– carbon alloy of hypo eutectoid 3.1 composition C0 (containing less than 0.76 wt% C) as it is cooled from within the austenite phase region to below the eutectoid temperature are determined by constructing a tie line at the temperature Te; the phase will contain 0.022 wt% C, whereas the phase will be of the eutectoid composition, 0.76 wt% C. As the temperature is lowered just below the eutectoid, to point f, all of the phase that was present at temperature Te (and having the eutectoid composition) will transform into pearlite, according to the reaction in Equation g10.76 wt% C2 ?The microstructure at point f will appear as the corresponding schematic inset of Figure 3.1.There will be virtually no change in the phase that existed at point e in crossing the eutectoid temperature––it will normally be present as a continuous matrix phase . surrounding the isolated pearlite colonies.cooling heating a10.022 wt% C2 Fe3C 16.70 wt% C2