

Activity 3.1 Handout

Suppose a gas mixture of 3 moles of CO and 2 moles of CO₂ is held at 800 °C and 1 atm. Determine whether graphite can form according to reaction (1), and if so, calculate the equilibrium ratio of CO to CO₂. Note that at 800 °C the free energies of formation of CO and CO₂ are -182.5, and -395.6 kJ mol⁻¹, respectively, and the free energy of formation of graphite is 0 kJ mol⁻¹.

