Answers to Practice Problems F in page 361

Answers to Practice Problems F

1. −332.2 J/K
2. −166.1 J/K
3. −95 J/K

Homework ——— GENERAL

Additional Practice Have students determine the changes in entropy for the following chemical reactions. Remind students that they must multiply the molar entropy by the number of moles of that substance in the reaction. Assume that the coefficients represent the number of moles involved in the reaction.

1. $2Na(s) + 2HCl(g) \longrightarrow 2NaCl(s) + H_2(g)$ Ans. −201.7 J/K

2. $2C_6H_6(l) + 15O_2(g) \longrightarrow 12CO_2(g) + 6H_2O(l)$ Ans. −437.7 J/K

3. $2Na(s) + 2H_2O(l) \longrightarrow 2NaOH(s) + H_2(g)$ Ans. 16.5 J/K

LS Logical