## Exercises to Le Chatelier’s principle

➀ N2 (g) + O2 (g) 2 NO (g) ΔH = +181 kJ/mol

a) raising the temperature:

b) raising the overall pressure:

c) increasing the volume:

➁ 2 NO (g) + O2 (g) 2 NO2 (g) ΔH = -113 kJ/mol

a) adding O2:

b) decreasing the overall pressure:

c) decreasing the temperature:

➂ C (s) + CO2 (g) 2 CO (g) ΔH = +172 kJ/mol

a) dividing the volume by two:

b) increasing the temperature:

c) taking away CO:

➃ 2 NO2 (g) N2O4 (g) ΔH = -62 kJ/mol

a) decreasing the overall pressure:

b) raising the temperature:

c) adding NO2:

➄ AgCl (s) + n H2O (l) Ag (aq) + Cl (aq) ΔH = ?

a) adding table salt:

b) increasing overall pressure:

c) decreasing the temperature:

**states of matter**: **(s)**=solid= **(l)**=liquid= **(g)**=gaseous, **(aq)**=solved in water