

CHEM 3410: Physical Chemistry I — Fall 2009

October 14, 2009

Lecture 18: Working with chemical equilibrium

References

1. Levine, *Physical Chemistry*, Sections 6.1–6.4 t, 6.6

Key Concepts

- For reactions involving pure solids and liquid (condensed phases), the chemical potential of these phases does not vary much with pressure. Therefore for a condensed phase at some pressure P :

$$\mu_{solid}(pure, P) = \mu_{solid}^{\circ}(pure)$$

- This means that the standard chemical potentials will enter into our calculations of standard entropies of reactions, but do not enter into the expression for the equilibrium constant. The amounts of solids and liquids will not impact the equilibrium state.

Related Exercises in Levine

Exercises: 6.63, 6.40