

CHAPTER OVERVIEW

16: The Chemical Activity of the Components of a Solution

We are frequently interested in equilibrium processes that occur in a solution at a constant temperature. If we are able to find the activities of the species making up the solution, we can describe the thermodynamics of such processes. Many experimental methods have been developed for the measurement of the activities of species in solution. In general, the accurate measurement of chemical activities is experimentally exacting. In this chapter, we consider some of the basic concepts involved. We focus primarily on molecular solvents and solutes; that is, neutral molecules that exist as such in solution. We introduce a simplified model, called the ideal solution model, which is often a useful approximation, particularly for dilute solutions. In Sections [16.16-16.18](#), we touch on the special issues that arise when we consider the activities of dissolved ions.

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Thumbnail: The Effect of Solution Formation on Entropy. (CC BY-SA-NC; anonymous by request)

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