

## CHAPTER OVERVIEW

### 8: Mixed States and the Density Matrix

Molecules in dense media interact with one another, and as a result no two molecules have the same state. Energy placed into one degree of freedom will ultimately leak irreversibly into its environment. We cannot write down an exact Hamiltonian for these problems; however, we can concentrate on a few degrees of freedom that are observed in a measurement, and try and describe the influence of the surroundings in a statistical manner.

[8.1: Mixed States](#)

[8.2: Density Matrix for a Mixed State](#)

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