

## CHAPTER OVERVIEW

### 9: Molecules

Quantum mechanics can be used to predict a large number of properties, especially those related to electronic spectroscopy, for diatomic molecules. A number of the concepts discussed in this chapter can be expanded to explain a great deal of the behavior of polyatomic molecules as well.

- [9.1: Potential Energy and the Hamiltonian](#)
- [9.2: The Born-Oppenheimer Approximation](#)
- [9.3: Molecular Orbital Theory](#)
- [9.4: Hund's coupling cases \(a\) and \(b\)](#)
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