An Physical Chemistry Librettexts Textmap organized around the textbook

Physical Chemistry: A Molecular Approach

by Donald A. McQuarrie and John D. Simon

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5: The Harmonic Oscillator and the Rigid Rotor

\[ R = \text{bond length} \]

\[ m_1 - C - m_2 \]

\[ r_1 - C - r_2 \]

6: The Hydrogen Atom

\[ E_{n}^{(1)} = \langle \phi_n | H_1 | \phi_n \rangle \]

\[ c_{nk}^{(1)} = \frac{\langle \phi_k | H_1 | \phi_n \rangle}{E_n^{(0)} - E_k^{(0)}} \]

\[ E_{n}^{(2)} = \sum_{k \neq n} \frac{|\langle \phi_k | H_1 | \phi_n \rangle|^2}{E_n^{(0)} - E_k^{(0)}} \]

7: Approximation Methods

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9: The Chemical Bond: Diatomic Molecules

10: Bonding in Polyatomic Molecules

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17: Boltzmann Factor and Partition Functions

\[ Z = \sum_i e^{-\beta E_i} \]

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